CLS 453 Advanced Studies in Clinical Chemistry– Syllabus

**Important Note:** This syllabus, along with course assignments and due dates, are subject to change. It is the student’s responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.

# Course Information

## Instructor Information

**Instructor:** Dawn Barten, MS, MLS(ASCP)  
**Office:** D-147 Science Bldg.  
**Virtual Office Hours:**Contact instructor

**Office Telephone:** 715-346-2509  
**E-mail:** [dbarten@uwsp.edu](mailto:dbarten@uwsp.edu)

## Course Information

**Course Description:** Advanced automated and manual techniques in chemical analysis of blood, urine, cerebrospinal fluid, synovial fluid, and other fluids and tissues. Focus on problem solving in clinical chemistry lab.

**Credits:** 2

**Prerequisite:** CLT(NCA) or MLT(ASCP) Certification

## Expected Instructor Response Times

* + I will attempt to respond to student emails within 24 hours. If you have not received a reply from me within 24 hours, please resend your email.
  + I will attempt to reply to and assess student discussion posts within 72 hours of discussions closing.
  + I will attempt to grade written work within one week of the due date, however longer written assignments may take me longer to read and assess.

## Communicate with your Instructor

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will know, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

## \*Textbook & Course Materials (Bibliography)

**Required Text:**

Text rental: Bishop, M.L., Fody, E.P., Schoeff, L.E. *Clinical Chemistry: Principles, Techniques, and Correlations* Enhanced Eighth Edition. Burlington, MA. Jones & Bartlett Learning; 2017

**Recommended Texts & Other Readings:** Journal articles will be provided and used as needed in Canvas.

## \*Course Learning Outcomes

Students will be able to:

* CLO 1: Ensure effective quality assurance.
* CLO 2: Assess new techniques, equipment, and/or procedures to determine efficacy and viability.
* CLO 3: Explain the theory related to common clinical chemistry tests.
* CLO 4: Correlate test results with diseases
* CLO 5: Explain the impacts of enzymes/hormones on clinical results.
* CLO 6: Explain the relationship between physiology and clinical chemistry.

You will meet the outcomes listed above through a combination of the following activities in this course:

* Test our knowledge quizzes
* At the Bench discussion questions
* Create a course project case study.
* Case studies
* Worksheets

## Course Structure

This course will be delivered entirely online through the course management system Canvas. You will use your UWSP account to login to the course from the [Canvas Login Page](https://www.uwsp.edu/canvas/Pages/default.aspx). If you have not activated your UWSP account, please visit the [Manage Your Account](https://www.uwsp.edu/infotech/Pages/Account/Manage-Your-Account.aspx) page to do so.

## \*Attendance

Students are required to set up an appointment with the instructor using the online office hours process during the following weeks.

Week 1 Introductions

Week 4 Check In

Week 8 Check In

Week 12 Check In

Week 15 Check In

*The instructor reserves the right to add additional dates as deemed necessary to ensure successful progress in the course. Students are encouraged to check in with the instructor with questions and to work proactively.*

## \*Topic Outline/Schedule

**Important Note:** Refer to the Canvas course home page for pertinent information. Activity and assignment details will be explained in detail within each week's corresponding Module. As tasks come due, they will appear in your “to do” list. If you have any questions, please contact your instructor.

|  |  |  |
| --- | --- | --- |
| **Week** | **Topic** | **Due Date** |
| 1, 2 | Welcome & Introductions,  Module 1: Thyroid and Parathyroid |  |
| 3, 4 | Module 2: Liver Function |  |
| 5, 6 | Module 3: Renal Function, Pancreatic Function, GI Function |  |
| 7, 8 | Module 4: Adrenal and Gonadal Function |  |
| 9, 10 | Module 5: Cardiac Function |  |
| 11, 12 | Module 6: Trace Elements and Toxicology |  |
| 13, 14 | Module 7: Quality Control/Quality Assurance |  |
| 15 | Module 8: Final Course Project |  |
| 16 | Final Course Project Due |  |

## Student Expectations

In this course you will be expected to complete the following types of tasks.

* Communicate via email
* Complete basic internet searches
* Download and upload documents to the LMS
* Read documents online
* View online videos
* Participate in asynchronous online discussions
* Complete quizzes/tests online
* Upload documents to Canvas to submit an assignment

# Technology

## Canvas Support



Click on the   button in the global (left) navigation menu and note the

options that appear:

|  |  |
| --- | --- |
| Support Options | Explanations |
|  | Use **Ask Your Instructor a Question** sparingly; technical questions are best reserved for Canvas personnel and help as detailed below. |
|  | **Chat**ting **with Canvas Support (Student)** will initiate a *text chat* with Canvas support. Response can be qualified with severity level. |
|  | **Contact**ing **Canvas Support via email** will allow you to explain in detail or even upload a screenshot to show your particular difficulty. |
|  | Calling the Canvas number will let Canvas know that you're from UWSP; phone option is available 24/7. |
|  | **Search**ing **the** [**Canvas guides**](https://community.canvaslms.com/docs/DOC-10701) connects you to documents that are searchable by issue. You may also opt for [**Canvas video guides**](https://community.canvaslms.com/docs/DOC-3891)**.** |
|  | If you have an idea for Canvas that might make instructions or navigation easier, feel free to offer your thoughts through this **Submit a Feature Idea** avenue. |

*All options are available 24/7; however, if you opt to email your instructor, s/he may not be available immediately.*

* Self-train on Canvas through the [Self-enrolling/paced Canvas training course](https://uws.instructure.com/enroll/FNRAL8)

## Course Technology Requirements

* View this website to see [minimum recommended computer and internet configurations for Canvas](https://community.canvaslms.com/docs/DOC-10721).
* You will also need access to the following tools to participate in this course.
  + webcam
  + microphone
  + printer
  + a stable internet connection (don't rely on cellular)

## Protecting your Data and Privacy

UW-System approved tools meet security, privacy, and data protection standards. For a list of approved tools, visit this website. <https://www.wisconsin.edu/dle/external-application-integration-requests/>

Tools not listed on the website linked above may not meet security, privacy, and data protection standards. If you have questions about tools, contact the UWSP IT Service Desk at 715-346-4357.

Here are steps you can take to protect your data and privacy.

* Use different usernames and passwords for each service you use
* Do not use your UWSP username and password for any other services
* Use secure versions of websites whenever possible (HTTPS instead of HTTP)
* Have updated antivirus software installed on your devices

## Technology Support

* Visit with a [Student Technology Tutor](https://www.uwsp.edu/tlc/Pages/techTutoring.aspx)
* Seek assistance from the [IT Service Desk](https://www.uwsp.edu/infotech/Pages/ServiceDesk/default.aspx) (Formerly HELP Desk)
  + IT Service Desk Phone: 715-346-4357 (HELP)
  + IT Service Desk Email: [techhelp@uwsp.edu](mailto:techhelp@uwsp.edu)

# Grading Policies

## Completing Assignments

**All assignments for this course will be submitted electronically through Canvas unless otherwise instructed.** Assignments must be submitted by the given deadline or special permission must be requested from instructor *before the due date*. Extensions will not be given beyond the next assignment except under extreme circumstances.

All discussion assignments must be completed by the assignment due date and time. Late or missing discussion assignments will affect the student’s grade.

## Graded Course Activities

Click the **Assignments** link in Canvas to access assignment listing, categories and weights as applicable. Click the **Syllabus** link to see a chronological listing of assignments. Click the **Grades** link to see current grades. Overall assignments and accompanying points are listed below:

### Derivation of Course Grades:

Test Your Knowledge – 20%

Case Study – Immunology final project – 25%

At the Bench – 20%

Worksheets – 10%

Assigned Case study – Immunohematology final project – 25%

## Late Work Policy

Be sure to pay close attention to deadlines—there will be no make-up assignments or quizzes. Late assignments will be accepted as follows:

1 day late - No penalty

2 days late - 75% of the earned grade

3 days late - 50% of the earned grade

4 days late – No points awarded

Discussion due dates remain firm due to the nature of interaction that must take place for an active discussion. Please contact your instructor with questions and concerns.

## \*Letter Grade Assignment

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

|  |  |
| --- | --- |
| **Letter Grade** | **Percentage** |
| A | 93-100% |
| A- | 90-92% |
| B+ | 87-89% |
| B | 83-86% |
| B- | 80-82% |
| C+ | 77-79% |
| C | 73-76% |
| C- | 70-72% |
| D+ | 67-69% |
| D | 60-66% |
| F | 0-59% |

## Participation

Students are expected to participate in all online activities as listed on the course calendar.Please be *a*ctively involved in discussions, projects, work is being submitted on time, etc.

## Viewing Grades in Canvas

Points you receive for graded activities will be posted to Grades. Click on the Grades link to view your points. Grades will update each time a grading session has been completed, typically 1 week following the completion of an activity. You will see a visual indication of new grades posted on your Canvas home page under the link to this course.

# Other Policies

## Absences due to Military Service

As stated in the UWSP Catalog, you will not be penalized for class absence due to unavoidable or legitimate required military obligations, or medical appointments at a VA facility, [not to exceed two (2)](https://www.uwsp.edu/veteran-services/Pages/short-term-leave.aspx) [weeks](https://www.uwsp.edu/veteran-services/Pages/short-term-leave.aspx) unless special permission is granted by the instructor. You are responsible for notifying faculty members of such circumstances as far in advance as possible and for providing documentation to the Office of the Dean of Students to verify the reason for the absence. The faculty member is responsible to provide reasonable accommodations or opportunities to make up exams or other course assignments that have an impact on the course grade. For absences due to being deployed for active duty, please refer to the [Military Call-Up Instructions for Students](https://www.uwsp.edu/veteran-services/Pages/Call-Up-Guidelines.aspx).

## Academic Honesty Policy & Procedures

**Student Academic Disciplinary Procedures**

UWSP 14.01 Statement of principles

The board of regents, administrators, faculty, academic staff and students of the university of Wisconsin system believe that academic honesty and integrity are fundamental to the mission of higher education and of the university of Wisconsin system. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others’ academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions.

UWSP 14.03 Academic misconduct subject to disciplinary action.

(1) Academic misconduct is an act in which a student:

(a) Seeks to claim credit for the work or efforts of another without authorization or citation.

(b) Uses unauthorized materials or fabricated data in any academic exercise.

(c) Forges or falsifies academic documents or records.

(d) Intentionally impedes or damages the academic work of others.

(e) Engages in conduct aimed at making false representation of a student's academic performance; or

(f) Assists other students in any of these acts.

(2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

## Clery Act

The US Department of Education requires universities to disclose and publish campus crime statistics, security information, and fire safety information annually. Statistics for the three previous calendar years and policy statements are released on or before October 1st in our [Annual Security Report](https://www.uwsp.edu/dos/clery/Documents/ASR-ASFR.pdf). Another requirement of the Clery Act is that the campus community must be given timely warnings of ongoing safety threats and immediate/emergency notifications. For more information about when and how these notices will be sent out, please see our [Jeanne Clery Act](https://www.uwsp.edu/dos/clery/Pages/default.aspx) page.

## Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

## Confidentiality

Learning requires risk-taking and sharing ideas. Please keep your classmates’ ideas and experiences confidential outside the classroom unless permission has been granted to share them.

## Copyright infringement

This is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act. Each year students violate these laws and campus policies, putting themselves at risk of federal prosecution. For more information about what to expect if you are caught, or to take preventive measures to keep your computing device clean, visit our [copyright page](http://libraryguides.uwsp.edu/copyright?hs=a).

## Dropping UWSP Courses

It is the student’s responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP [Academic Calendar](https://www.uwsp.edu/regrec/Pages/calendars.aspx) for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student’s family.

## Drug Free Schools and Communities Act

The Drug Free Schools and Communities Act (DFSCA) requires institutions of higher education to establish policies that address unlawful possession, use, or distribution of alcohol and illicit drugs. The DFSCA also requires the establishment of a drug and alcohol prevention program. The Center for Prevention lists information about alcohol and drugs, their effects, and the legal consequences if found in possession of these substances.[Center for Prevention – DFSCA](https://www.uwsp.edu/dos/aoda-ipv/Pages/dfsca.aspx)

## \*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.  The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

*If modifications are required due to a disability, please inform the instructor and contact the* [*Disability and Assistive Technology Center*](https://www.uwsp.edu/datc/Pages/default.aspx) *to complete an Accommodations Request form.  Phone: 346-3365 or Room 609 Albertson Hall.*

## FERPA

The [Family Educational Rights and Privacy Act](https://www.uwsp.edu/regrec/Pages/ferpa.aspx) (FERPA) provides students with a right to protect, review, and correct their student records. Staff of the university with a clear *educational need to know* may also have to access to certain student records. Exceptions to the law include parental notification in cases of alcohol or drug use, and in case of a health or safety concern. FERPA also permits a school to disclose personally identifiable information from a student’s education records, without consent, to another school in which the student seeks or intends to enroll.

Lecture materials and recordings for [CLS 451] are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or share lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities.  Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor’s express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

## Help Resources

|  |  |  |  |
| --- | --- | --- | --- |
| **Tutoring** | **Advising** | **Safety and General Support** | **Health** |
| Tutoring and Learning Center helps with Study Skills, Writing, Technology, Math, & Science. 018 Albertson Hall, ext 3568 | Academic and Career Advising Center, 320 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 |

## Inclusivity Statement

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 using this [link](https://www.uwsp.edu/dos/Pages/Bias-Hate-Incident.aspx). You may also contact the Dean of Students office directly at [dos@uwsp.edu](mailto:dos@uwsp.edu).

## Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if a maximum of 2 modules are left to complete in the course. All incomplete course assignments must be completed by the end of the next semester.

## Netiquette Guidelines

Netiquette is a set of rules for behaving properly online. Your instructor and fellow students wish to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual. Working as a community of learners, we can build a polite and respectful course community.

The following netiquette tips will enhance the learning experience for everyone in the course:

* Do not dominate any discussion.
* Give other students the opportunity to join in the discussion.
* Do not use offensive language. Present ideas appropriately.
* Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting.
* Popular emoticons such as ☺ or / can be helpful to convey your tone but do not overdo or overuse them.
* Avoid using vernacular and/or slang language. This could possibly lead to misinterpretation.
* Never make fun of someone’s ability to read or write.
* Share tips with other students.
* Keep an “open-mind” and be willing to express even your minority opinion. Minority opinions have to be respected.
* Think and edit before you push the “Send” button.
* Do not hesitate to ask for feedback.
* Using humor is acceptable

Adapted from:

Mintu-Wimsatt, A., Kernek, C., & Lozada, H. R. (2010). *Netiquette: Make it part of your syllabus*. Journal of Online Learning and Teaching, 6(1). Retrieved from <http://jolt.merlot.org/vol6no1/mintu-wimsatt_0310.htm>

Shea, V. (1994). Netiquette. Albion.com. Retrieved from: <http://www.albion.com/netiquette/book/>.

## Religious Beliefs Accommodation

It is UW System policy ([UWS 22](https://docs.legis.wisconsin.gov/code/admin_code/uws/22)) to reasonably accommodate your sincerely held religious beliefs with respect to all examinations and other academic requirements.

You will be permitted to make up an exam or other academic requirement at another time or by an alternative method, without any prejudicial effect, if:

* There is a scheduling conflict between your sincerely held religious beliefs and taking the exam or meeting the academic requirements; and
* You have notified your instructor within the first three weeks of the beginning of classes (first week of summer or interim courses) of the specific days or dates that you will request relief from an examination or academic requirement.
* Your instructor will accept the sincerity of your religious beliefs at face value and keep your request confidential.
* Your instructor will schedule a make-up exam or requirement before or after the regularly scheduled exam or requirement.
* You may file any complaints regarding compliance with this policy in the Equity and Affirmative Action Office.

## Title IX

UW-Stevens Point is committed to fostering a safe, productive learning environment. Title IX and institutional policy prohibit discrimination on the basis of sex, which includes harassment, domestic and dating violence, sexual assault, and stalking. In the event that you choose to disclose information about having survived sexual violence, including harassment, rape, sexual assault, dating violence, domestic violence, or stalking, and specify that this violence occurred while a student at UWSP, federal and state laws mandate that I, as your instructor, notify the Title IX Coordinator/Office of the Dean of Students.

Please see the information on the [Dean of Students webpage](https://www.uwsp.edu/DOS/sexualassault) for information on making confidential reports of misconduct or interpersonal violence, as well as campus and community resources available to students. For more information see the [Title IX page.](https://www.uwsp.edu/hr/Pages/Affirmative%20Action/Title-IX.aspx)