Assessment of Aquatic Systems (WATR 482/682), Spring 2022

Lecture: T/Th. 2:00-2:50 pm TNR 351 **Instructor:** Dr. Jered Studinski **Lab:** F 9:00-10:50 am TNR 351 **Email:** jered.studinski@uwsp.edu

Office: TNR 184 **Phone:** (715) 346-2832

Office Hours: M/T/W 10-11am, Th. 9-11 am, plus nearly any other time upon request

Description: Assessment and effects of physical and chemical pollution in the aquatic environment. Project oriented application of laboratory assays and field assessments and their interpretation using bacteria, invertebrates, aquatic plants and fish.

Learning outcomes: After completing this course, students will understand 1) the local and global threats to water quality, 2) the theory and application of water monitoring strategies, and 3) the application and interpretation of common water monitoring methods.

Required course materials: Waders, outdoor clothing, a good attitude, kindness.

Letter grades: Grades are rounded to the nearest whole percent. For example, an 89.51% = A-, while an 89.49% = B+.

100-92% = A 89-88% = B+ 79-78% = C+ 69-68% = D+ 59-0% = F 91-90% = A- 87-82% = B 77-72% = C 67-62% = D 81-80% = B- 71-70% = C- 61-60% = D-

Attendance/success policy: Attendance is expected, and you will not do well if you miss class. Missed lectures will translate into missed points on exams. Only with an excused absence (e.g., death of a family member, serious illness, hospitalization) will I nullify or allow you to make up missed exams. A makeup exam may differ in format from the original exam.

Tentative plan: Lecture and lab topics are ordered below. This course is in development; dates are difficult to predict.

Important dates

Jan. 24, Monday: First day of the semester

Mar. 21-25: Spring break

May 13, Friday: Last day of the semester

May 19, Thursday: Final exam period (presentations)

Graded items

Assignments (~7): ~10-20 pts each

Exam 1: ~100 pts

Exam 2: ~100 pts

Final report: ~70 points

Final presentation: ~30 points

Lecture topics

Lecture 1: Water use

Lecture 2: Review, characteristics of water

Lecture 3: Activity 1 followup and discussion

Lecture 4: Review, aquatic ecology

Lecture 5: Aquatic invertebrate ID

Lecture 6: Definition and theory of water quality assessment

Lecture 7: Pollutants and their impacts

Exam 1, ~100 points

Lecture 8: The basics of indices

Lecture 9: The specifics of indices

Lecture 10: Legislative framework

Lecture 11: Defining waters of the US

Lecture 12: Writing and presentation tips

Lecture 13: Guest lecture

Exam 2, ~100 points

Collecting and analyzing data, writing report and presentation

(~3 weeks)

Presentations (during final exam time)

Lab topics

Causes and solutions discussion

Stream discharge assignment

Aquatic invertebrate ID

Introduction to monitoring project, group formation, site selection

Periphyton and phosphorous assignment

Natural communities and trophic status assignment

Fish index application

Aquatic plant index application

Invertebrate index creation

Collecting and analyzing data, writing report and presentation

(~3 weeks)

Electronic devices: Put your phone away and talk to people around you. Pay attention to the lecture, take good notes, and ask questions. Be an active participant in your education. Taking notes on tablets and laptops is discouraged as research suggests it harms your course performance and the performance of those around you. However, if you must take notes electronically, please sit at the edges or back of the classroom.

Graduate students: Grades for the course follow the above guidelines. In addition, a 40-minute seminar on a selected and approved topic will be required. The seminar will be worth 50 points.

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 need 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 reporting here: https://www.uwsp.edu/dos/Pages/Anonymous-Report.aspx.

Title IX

UW-Stevens Point is committed to fostering a safe, productive learning environment. Title IX and institutional policy prohibit discrimination based on sex, which includes harassment, domestic and dating violence, sexual assault, and stalking. If 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 for information on making confidential reports of misconduct or interpersonal violence, as well as campus and community resources available to students.

Dean of Students: https://www.uwsp.edu/DOS/sexualassault/Pages/default.aspx

Title IX page: https://www.uwsp.edu/hr/Pages/Affirmative%20Action/Title-IX.aspx

Disability and Accommodations

In accordance with federal law and UW System policies, UWSP strives to make all learning experiences as accessible as possible. If you need accommodations for a disability (including mental health, chronic or temporary medical conditions), please visit with the Disability and Assistive Technology Center to determine reasonable accommodations and notify faculty. After notification, please discuss your accommodations with me so that they may be implemented in a timely fashion.

DATC contact info: datctr@uwsp.edu; 715/346-3365; 609 Albertson Hall, 900 Reserve Street

FERPA

The Family Educational Rights and Privacy Act (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.

Academic Integrity

Academic Integrity is an expectation of each UW-Stevens Point student. Campus community members are responsible for fostering and upholding an environment in which student learning is fair, just, and honest. Through your studies as a student, it is essential to exhibit the highest level of personal honesty and respect for the intellectual property of others. Academic misconduct is unacceptable. It compromises and disrespects the integrity of our university and those who study here. To maintain academic integrity, a student must only claim work which is the authentic work solely of their own, providing correct citations and credit to others as needed. Cheating, fabrication, plagiarism, unauthorized collaboration, and/or helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. Failure to understand what constitutes academic misconduct does not exempt responsibility from engaging in it. For more information on UWS chapter 14 visit: https://www.uwsp.edu/dos/Pages/Student-Conduct.aspx

Reporting Incidents of Bias/Hate

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: https://www.uwsp.edu/dos/Pages/Anonymous-Report.aspx. You may also contact the Office of the Dean of Students directly at dos@uwsp.edu. Diversity and College Access is available for resources and support of all students: https://www.uwsp.edu/dca.

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. 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 page at https://www.uwsp.edu/dos/clery.

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

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