

## Fisheries Research

**Course:** Water 483/683, Fall 2019, 3 credits

**Description:** Introduction to field and laboratory fishery research. Principles of designing research projects, testing hypotheses, sampling fish, analyzing fishery data, reporting results in both written and oral forms, and defending research.

**Lectures:** Wednesday and Friday, 11:00-11:50, TNR 359

**Laboratory:** Wednesday, 2:00-3:50, TNR 351

**Instructor:** Joshua K. Raabe, PhD

**Contact Information:** joshua.raabe@uwsp.edu, TNR 174, 715-346-2689 (office phone)

**Office hours:** Wednesday, 9:00-11:00; by appointment (e-mail first); or if door is open

**Goal:** My overall goal is for students to increase their understanding of the fisheries research process and to further develop their writing and oral communication skills.

**Objectives:** By the end of the semester, students should be able to:

1. Design a fisheries research project with appropriate methods and analyses
2. Critique and discuss scientific papers
3. Prepare a scientific paper in the format of a professional fisheries journal
4. Prepare and present an oral seminar on the topic of their research in the format of a scientific meeting
5. Orally defend their research in the format of a thesis defense

**Communication:** Students are expected to routinely check their UWSP e-mail and Canvas course site for updates and materials.

**Canvas:** <https://uwstp.instructure.com/courses/222289>

**Textbooks:** 1. Zale, A.V., D.L. Parrish and T.M. Sutton, editors. 2012. Fisheries Techniques, Third Edition. American Fisheries Society, Bethesda, Maryland.  
2. Jennings, C.A., T.E. Lauer and B. Vondracek, editors. 2012. Scientific communication for natural resource professionals. American Fisheries Society, Bethesda, Maryland.

**Additional Materials:** Additional lecture and lab materials will be available on Canvas. Text and handouts are to be read *prior* to attending lecture and lab.

**Grade Breakdown:** Grades will be determined based on each student’s total points from assignments at the end of the semester. The table below shows point totals broken down by category and associated grades with +/- determinations.

Category	Points	Grade	Points	Percentage
<b>Paper</b>				
Title & Objectives	15			
Introduction	50			
Methods	50	A	790 - 850	93 - 100.0%
Results	50	A-	765 - 789	90 - 92.9%
Discussion	50	B+	739 - 764	87 - 89.9%
Abstract	15	B	705 - 738	83 - 86.9%
Final	180	B-	680 - 704	80 - 82.9%
Peer Reviews	40	C+	654 - 679	77 - 79.9%
<b>Assignments</b>				
Oral presentation	100	C	620 - 653	73 - 76.9%
Oral defense	80	C-	595 - 619	70 - 72.9%
Quizzes/Participation	120	D+	569 - 594	67 - 69.9%
		D	510 - 568	60 - 66.9%
		F	≤ 510	≤ 59.9%
<b>Total</b>	<b>850</b>			

**Research Paper (410 points):** Each student will write a scientific research paper that examines a fisheries or related dataset. The paper will be edited as if it were submitted to a scientific, peer-reviewed journal. Each portion of the manuscript will be turned in separately over the course of the semester. In addition to a grade for each section, detailed feedback will be provided so the student can incorporate those comments into the final version. The paper will be graded on its completeness of thought, clarity of writing, organization and formatting, appropriateness of data analysis, interpretation of results, depth of discussion, use of literature, and that the student challenged themselves.

**Paper - Peer Review (40 points):** Students will be assigned a partner (or group of 3) to discuss projects and review each other’s research papers twice during the semester. This provides an opportunity to improve papers, learn about other projects and providing constructive feedback, and help each other through the process. Grades will be based on timeliness (i.e., submit draft and review by deadline), review thoroughness, and student evaluations of the quality of the review.

**Oral Presentation (100 points):** Each student will give an oral presentation on his or her research paper. I will use a modified American Fisheries Society criteria for evaluating oral presentations, including organization, clarity of visual aids, verbal presentation, and length. The critique will be returned to the student for use in preparing future presentations.

**Oral Defense (80 points):** During the final exam period, each student will orally defend his or her research paper during a 30-minute period that resembles a Master's thesis defense.

**Assignments (100 points):** A series of homework assignments related to lecture topics provide practical experience in the use and interpretation of fishery statistics and to the scientific writing process. Each exercise either involves a basic analysis and several interpretive questions or an exercise to assist you in writing scientifically.

**Quizzes / Discussion / Participation (120 points):** As upper class students I expect you to be prepared and actively participate in lectures and laboratories. Points will be tied to Canvas quizzes on reading materials, attendance and participation in certain class activities, and overall participation throughout the semester. Please keep in mind that the quality of your educational experience in this course will be directly related to the amount of time you invest in preparation and the extent to which you become involved in class.

**Due Dates / Late Policy:** Research paper and other assignments can be turned in during online (preferred) until midnight on the due date. I will state due dates on each assignment and on Canvas. *All assignments will be 15% for each full day late* (e.g., 3 points/day for 20 point assignment), so please turn in assignments in a timely manner to avoid point reductions or a score of zero.

**Research Paper – Assistance:** In addition to working with me and your peer review partner(s), the The Writing Lab in the Tutoring-Learning Center (TLC) offers free one-on-one help with papers at any point in the writing process, from outlining to checking a completed paper before submission. The writing tutors are UWSP students who have done well in their classes and who are here to share their successful writing habits to help others succeed. Drop in room LRC 018 or call (715) 346-3568 for an appointment.

<http://www.uwsp.edu/tlc/Pages/writingReadingTutorials.aspx>

**Classroom Environment:** I want everyone to feel comfortable and willing to participate in this course and will work to keep a positive classroom environment. Please contact me if you have any issues with a classmate or me. In addition, UWSP values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, they developed a set of expectations for all students and instructors, known as the *Rights and Responsibilities* document. Additional information:

<http://www.uwsp.edu/dos/Documents/Right%20and%20Responsibilities.pdf>

**Student Feedback:** To help improve this course and my teaching throughout the semester, I will ask for feedback and you can always talk to or email me. You also can provide *anonymous* feedback through an online survey (link below and also on D2L). I will try to incorporate all constructive, well-stated suggestions and critiques. I also greatly appreciate completed UWSP course evaluations at the end of the semester.

<https://www.surveymonkey.com/r/FWFRKK7>

**Academic Integrity:** I expect all students to strictly adhere to the high level of conduct and academic integrity at UWSP. All forms of plagiarism, cheating, and academic dishonesty are prohibited; violations will follow UWSP procedures. I reserve the right to use plagiarism software on assignments. The minimum penalty for a violation of academic integrity is failure (score of zero) of the assignment, but penalties can be stricter. For more information, please see the UWSP “Student Academic Standards and Disciplinary Procedures” section of the *Rights and Responsibilities*, Chapter 14:

<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>

**Disability Policy:** If you are a student with disabilities, we will work together to accommodate any disabilities according to UWSP policies and the Americans with Disabilities Act (ADA), a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. Students must register with UWSP Disability and Assistive Technology Center, provide proper documentation, and contact me at the beginning of the semester. For more information, please visit the links below and the Disability and Assistive Technology Center, located on the 6th floor of the Learning Resource Center (the Library).

<http://www4.uwsp.edu/special/disability/>

<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf>

**Safety Procedures:** *Medical emergency:* call 911 or use the hallway red emergency phone, offer assistance if trained and willing, guide emergency responders to victim. *Tornado warning:* move to the second floor hallway until advised otherwise. *Fire alarm:* calmly evacuate building, meet in courtyard near library stairs, notify me or emergency command personnel of any missing individuals. *Active shooter:* Run/Escapes, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders. Additional details and information:

[www.uwsp.edu/rmgt](http://www.uwsp.edu/rmgt)