

**HS 360 - Research Design and Methods for the Health Sciences**

Prof. Timothy Halkowski

Office Hours: M 3.30-4.30, W 3.30-4.30 & by appt.,  
via email, Zoom, or phone

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**Course Description:** Design, experimental methods and critical interpretation of research publications in the health sciences. Topics include review of biomedical research publications, research ethics, and evidence-based healthcare. Conduct a group research project, demonstrating the steps in conducting research, protocol development, data collection and data analysis, and presenting research results.

**Pre-requisite Courses:** HS 301 or MATH 355 and/or Consent of Instructor

**Required Textbook**— K. Jacobsen (2012). *Introduction to Health Research Methods*. 1st Ed.  
There will also be **supplementary required reading assignments** posted on Canvas.

**Course goals:**

When this course ends, learner participants will be able to:

- Describe importance of evidence-based research informing Health Care providers' decision-making abilities for improving health of individuals, communities, groups and the nation.
- Describe various methodologies & study designs for research application.
- Demonstrate appropriate ethical and professional behaviors relating to conducting research.
- Critically review scientific literature.

**Course Competencies:**

By the conclusion of this course, learner participants will:

- Complete Institutional Review Board (IRB) protection of human subjects training.
- Apply ethical concepts related to conducting research.
- Identify various research study designs & methodologies.
- Write research hypotheses/ null hypotheses and/or research questions / statements.
- Write a research proposal.
- Analyze research studies
- Complete a review of the scientific literature.
- Identify appropriate tools for collecting data.
- Develop research tools.
- Collect research data.
- Analyze research findings.
- Collaboratively present research findings.

**Core abilities:**

- Communicate Effectively Verbally & In Writing
- Think Critically & Creatively
- Exercise Problem-Solving Skills
- Work Collaboratively in Diverse Teams

**Assessment Evidence (What will your course grade be based on?)**

<u>Assignment</u>	<u>Percentage of course grade</u>
<b>Weekly exercises</b>	30%
<b>Midterm assignments:</b> Annotated bibliography	15%
Web tutorial for human subjects protection via CITI program	10%
I.R.B. proposal	10%
<b>Final exam assignment:</b> Abstract	15%
Poster	10%
Final reflection	10%
<b>Total course grade</b>	<b>100%</b>

**Grading Scale:**

Final letter grades will be awarded as follows:

<b>A:</b> 94-100%	<b>C:</b> 73-76%
<b>A-:</b> 90-93%	<b>C-:</b> 70-72%
<b>B+:</b> 87-89%	<b>D+:</b> 65-69%
<b>B:</b> 83-86%	<b>D:</b> 60-64%
<b>B-:</b> 80-82%	<b>F:</b> 59% or below
<b>C+:</b> 77-79%	

**Class Policies**

This course will use Canvas throughout the semester to distribute materials, conduct online quizzes/ discussions, and inform students of syllabus changes become familiar with Canvas and make it a point to check the course page on Canvas regularly.

Tips for Success

- Communicate early and often regarding class conflicts, assignments, and any questions regarding this course.
- Take advantage of your resources.
  - Create study groups with your peers.
  - Utilize the Tutor & Learning Center (<http://www.uwsp.edu/tlc/Pages/default.aspx>)

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<u>Date</u>	<u>Topic/s</u>	<u>Readings</u>	<u>Assignments</u>
Jan 26, 28	Purpose, topic, reviewing the lit., focusing the research question	Jacobsen, pgs 1-24	Exercise 1
Feb 2, 4	Study approaches & Reviews	Jacobsen, pgs 33-41	Exercise 2
Feb 9, 11	Research Ethics	Jacobsen, pgs 151-168	Exercise 3
Feb 16, 18	Developing a proposal	Jacobsen, pgs 97-103	Exercise 4
Feb 23, 26	Selecting a sample population	Jacobsen, pgs 105-123	Exercise 5
Mar 2, 4	Developing a questionnaire	Jacobsen, 125-137	Exercise 6
Mar 9, 11	Surveys & Interviews	Jacobsen, pgs 139-146	Midterm projects
Mar 16, 18	- Annotated bibliography - Web tutorial for human subjects protection via CITI program - I.R.B. proposal		<b>Midterm projects due March 18th</b>
<b>Mar 23, 25</b>	<b>Spring Break</b>		
Mar 30, Apr 1	Descriptive statistics	Jacobsen, pgs 187-196	Exercise 7
Apr 6, 8	Descriptive statistics	Jacobsen, pgs 187-196	Exercise 8
Apr 13, 15	Comparative statistics	Jacobsen, pgs 197-210	Exercise 9
Apr 20, 22	Comparative statistics	Jacobsen, pgs 197-210	Exercise 10
Apr 27, 29	Project - article writing	Jacobsen, pgs 223-230	Final projects
May 4, 6	Project - citations	Jacobsen, pgs 231-238	Final projects
May 11, 13	Project - posters	Jacobsen, pgs 249-258	Final projects
<b>May 19, 5pm</b>	- Abstract - Poster - Final reflection		<b>Take home Final exam due</b>

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### Health Protection when on campus

**Face Coverings:** At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the [Disability and Assistive Technology Center](#) to discuss accommodations in classes. Please note that by university policy unless everyone is wearing a face covering, in-person classes cannot take place. Failure to adhere to this requirement could result in formal withdrawal from the course.

Other Guidance: **Please monitor your own health each day** using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service.

As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.

Maintain a minimum of 6 feet of physical distance from others whenever possible.

Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.

Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.

Please keep these same healthy practices in mind outside the classroom.

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### 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 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 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 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> 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](mailto: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](mailto:dos@uwsp.edu). Diversity and College Access is available for resources and support of all students: <https://www.uwsp.edu/dca/Pages/default.aspx>.

**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.

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

Copyright infringement 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.



Lecture materials and recordings for Professor Halkowski's HS 360 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.

