

HS 360
Research Design & Methods for the Health Sciences (3 cr)

(GEP: Comm in the Major)
Spring, 2017 (Sem II 2016~17)

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Class Meeting: Section 2 JO T/Th 2:00~3:15 CPS 233

Office Hours: As posted outside office, or schedule appointments.

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:

Prereq: 301 or MATH 355 and/or Consent of Instructor

Texts:

Jacobsen (2012). Introduction to Health Research Methods. 1st Ed. (Text Rental).

Other supplemental materials will be used & supplied throughout class.

Core abilities:

- Communicate Effectively ~verbally & in writing
- Think Critically & Creatively
- Exercise Problem-Solving Skills
- Work Collaboratively in Diverse Teams

Course Goals:

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

- 1) Explore importance of evidence-based research informing HC providers' decision-making abilities for improving health of individuals, communities, groups and the nation.
- 2) Explore various methodologies & study designs for research application.
- 3) Demonstrate appropriate ethical and professional behaviors relating to conducting research.
- 4) Critically review scientific literature.
- 5) Develop appreciation for the scope & complexity of the research process & conducting research.

Course Competencies:

By the conclusion of this course, learner participants will:

- 1) Complete Institutional Review Board (IRB) protection of human subjects training.
- 2) Apply ethical concepts related to conducting research.
- 3) Identify various research study designs & methodologies.
- 4) Write research proposals.
- 5) Write research hypotheses/ null hypotheses and/or research questions / statements.
- 6) Analyze research case studies.
- 7) Determine appropriateness of design & methodology selection for conducting research.
- 8) Complete a review of the scientific literature.
- 9) Identify appropriate tools for collecting data.
- 10) Develop research tools.
- 11) Collect research data.
- 12) Analyze research findings.
- 13) Collaboratively present research findings.
- 14) Apply appropriate communication skills~ active listening, appreciative inquiry & conflict resolution skills as necessary.
- 15) Demonstrate ethical & professional behavior as future HC professionals & researchers.
- 16) Reflect on personal strengths and weaknesses as future HC researchers.

SHCP Program Graduate Outcomes:

By the conclusion of the academic program in the SHCP, graduates clearly demonstrate the following skills, knowledge, attitudes & behaviors: (* Indicates Outcomes addressed in this course).

*Critical Thinking

*Communication

*Collaboration

*Professionalism

Final Course Outcome/Artifacts: Institutional Review Board (IRB) training completion certificate; class presentation including research findings; Research & Case Study Analyses, Develop Research Proposals, Hypotheses/Null Hypotheses; Literature Review; Conduct research including: identify appropriate research methodology, collect, analyze and disseminate research findings (Documentation addresses the following SHCP Program Outcomes: 1-4).

Professional Growth:

During professional career development, being able to DOCUMENT your talents & abilities can aid in your career search as a future health care professional. Documenting "hidden" skills you might possess is important as you prepare for leaving school and actively pursuing positions in the workforce or graduate school. Various artifacts, including literature reviews, research proposals and IRB training certification along with other artifacts (research, work & class assignment examples) can be used for *demonstrating several skills during professional development, including: If you are considering a career as a future health care leader or position as an organizational manager, these are critically important to provide in competitive, accredited and nationally recognized organizations.*

- **Organizational skills.** *Do your artifacts reflect you have organized them well?*
- **Writing skills.** *Do your artifacts demonstrate you can accurately describe projects, and use writing skills to perform such job functions as filling out materials lists, etc.?*
- **Neatness.** *Do your artifacts demonstrate concern for neatness and workmanship?*
- **Communication.** *Do your artifacts demonstrate your ability to communicate your thoughts and ideas clearly, both in writing, orally, and non~ verbally?*
- **Conflict Resolution.** *Do your artifacts demonstrate your ability to resolve conflict in healthy and productive ways?*

- **Critical thinking & problem solving.** *Do your artifacts document your ability to not only following instructions, but you can think critically about problems and assignments, and that you can analyze problems and solve them appropriately?*
- **Teamwork.** *Do your artifacts show that you can work as part of a **team**?*
- **Community service.** *Do your artifacts document concern for the well-being of the overall community?*
- **Leadership.** *Do your artifacts indicate your leadership abilities?*
- **Non-bias.** *Do your artifacts indicate you are capable working in a non-biased atmosphere, including others from all races, members of the opposite sex, etc.?*
- **Day-to-day job skills.** *Do your artifacts identify skills you have developed including day-to-day job skills including good attendance, punctuality, reliability, etc.?*
- **Research skills.** *Do your artifacts demonstrate your ability to acquire and apply information from a variety of sources such as technical and reference manuals, libraries, and the internet?*
- **Technology skills.** *Do your artifacts demonstrate adaptability & comfort working in a world of rapidly changing technologies, and computer literacy?*

Writing is a means of learning. When written assignments have deductions, you will revise your work as part of the writing process. You are only evaluated against yourself for your written coursework. Your ongoing progress & improvement in your writing skills is one focus of this course.

Course Grades & Developmental Artifacts:

This is a communication in the major course. As such, the majority of your course grade is determined through writing & oral presentation assignments. The instructor suggests beginning assignments early, and using various campus resources available for improving your writing skills & presentation abilities. These options will be discussed in class. Additionally, following any guidelines provided by the instructor can maximize your performance on all course assignments & work.

Research Materials~

Research Proposal	10%	
IRB~ Protection of Human Subjects Training	5%	
Case Study Review	5%	
Written Literature Review	<u>25%</u>	45%

Exercises~

Systematic Review Exercise	2.5%	
Research Questions/Hypotheses/Null Hypotheses	5%	
CWG~ Questionnaire Development	<u>5%</u>	12.5%

Examinations~

Quizzes (2 online)	5%	
Comprehensive Final	<u>5%</u>	10%

Team Development~

CWG Research Project	20%	
CWG Research Presentation	10%	
Active class discussion & attendance	<u>2.5%</u>	32.5%
		100%

The Tutoring & Learning Center is located in the Library. TLC is on the lower level, room 018. You may be able to see a tutor without an appointment, but it's *best to call ahead for help with specific courses*. It is **STRONGLY ADVISED** you seek assistance in the writing center!! TLC Regular hours:9:00 - 4:00 Monday – Thursday 9:00 - 12:00 Fridays
http://www.uwsp.edu/tlc/writing_reading_tutorials.shtm#Writing

Attendance:

Each class period will begin with discussion of current news concerning Research. You may use newspapers, news broadcasts from radio or television, the internet, discussion groups, for discussion etc. Guidelines for active class discussion are provided in the syllabus. Actively participating in course discussions is expected and requires your attendance at all course sessions as we consider the global nature of research. Absence from class is *only excused* with written documentation (doctor's excuse, printed obituaries, coaches' note for games). Please respect your classmates & faculty by letting them know if you are unable to attend class. Attendance & participation point scale:0 absences~ 100 ; 1 ~ 90 ; 2 ~ 80 ; 3 ~ 70 ;4 ~ 60 ; 5 ~ 50 ; 6 ~ 40 ; 7 or >~ 0. Participation in class discussion is expected. Failure to participate in class discussions will result in deduction of point value based on level of participation or lack thereof.

Cooperative Work Group (CWG), Research Project & Presentations:

Health care professions require teamwork and cooperation at all times to support client needs. Throughout the semester, you will be required to act as a team with various cooperative workgroup (CWG) members. Groups will conduct research and present their findings. Incorporating case studies & literature reviews can aid in supporting the concepts included within the topical area. Guidelines will be provided for group & teamwork. You will complete both a self & peer evaluation performance of all group members. Groups will make one major presentation during the course. Student groups will be assigned various HC research topics. Presentations will be made to the class. Lack of participation will result in a deduction of points, up to 100% of grade earned by the group members.

Grading Scale:

Total point value places participants into grading categories listed below. Grades are based on actual achievement, and are **NOT rounded**: Percentages provided are of total possible course points earned.

Proficient

A 94-100%

A- 92-93%

Emerging

B+ 89-91%

B 86-88%

B- 83-85%

Basic

C+ 81-82%

C 75-80%

C- 70-74%

Undeveloped

D 65-69%

F below 65%

Guidelines for Your Personal Course Success

Performance Based~ It's about learning!!

Your success is the main goal of any learning experience. In performance-based learning, we carefully identify what you need to be able to do as a result of a learning experience. Next we determine how you can show that you have learned these skills. Finally, we plan learning activities that will help you develop the target skills, knowledge, and attitudes.

Benefits for you:

1) You will learn skills and knowledge that you can & will apply, rather than outlines of information.

2) We tell you right up front WHAT you will learn, how we expect you to show WHEN you have learned, and HOW you may go about learning. This helps you plan how to invest your time & energy.

3) You know the standards for evaluation before the assessment. You earn a grade according to how well you perform the skills rather than according to how well others in the class perform. You are not graded on a curve--you are evaluated based on your individual performance.

4) You are actively involved in the learning. We design learning activities and assignments that teach you to solve problems and to learn on your own.

5) When you complete a learning experience, you have documentation showing the skills and knowledge you have learned. You can use this information when you seek employment, admission to further education, advanced standing or transfer of credit.

Basic Terminology:

Core Ability - A broad capability that you will develop throughout a course, program, or major, rather than in one specific lesson. Core abilities include skills that everyone needs to succeed, such as problem solving and communication.

Competency (objectives)- A major skill, knowledge, or attitude that you will learn as a result of a given learning experience.

Learning Activities -Statements that describe strategies for learning skills, knowledge, and attitudes. (You might think of them as learning assignments.)

Performance Evaluations - Directions for completing a required assignment and a scoring guide telling you how your performance of a skill or the product you create will be evaluated.

Discussion ~ Participation Guidelines & Evaluation

Discussion Participation:

A component of your grade will be based on **active participation** in class. Your grade for class participation will be based on the **frequency and quality** of your contributions in both F2F and online environments (Desire 2 Learn). Quality participation is considered as thoughtful and concise contributions that demonstrate critical thinking related to the course material. Contributions of low quality or those that are long-winded paragraphs of excerpts from course materials or other sources will not ensure a good grade. Furthermore, comments such as "I agree" or "Yes/No" will not contribute toward the frequency of your participation.

Grade of A : All criteria for 'B.' Illustrates a synthesis of knowledge by relating previous knowledge and/or experience with current knowledge and/or experience. Demonstrates leadership in discussion to facilitate course objectives. Provides supporting references to support his/her perspective.

Grade of B : Actively participates in discussions. Frequently presents issues for discussion and actively responds to other students' comments. Comments demonstrate critical thinking and thorough comprehension of course content. Encourages feedback from other students.

Grade of C : Occasionally presents issues and comments during discussion. Feedback demonstrating critical thinking is limited.

Grade of D Minimal participation in discussions. Comments may resemble "I agree" or "Yes/No" responses. No demonstration of critical thinking.

Grade of F No participation in class discussions.

You will receive a participation grade each week. At the end of the course, the grades will be averaged for an overall grade and corresponding point value.

Class Discussions: You are expected to contribute each class. Contributions should pose a question or questions to your colleagues promoting critical thinking related to the topic at hand. Time during class can be used to discuss issues related to the course materials, case studies, research articles or other relevant topics introduced by the instructor or other

colleagues. Class discussion promotes critical thinking and exchanging of information through thoughtful interaction between the classes learner participants. Your contributions can and should include professional and personal information and experiences relevant to the course content. Failure to participate in class discussion will result in deduction of point value based on level of participation or lack thereof.

Academic Honesty & 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
6. 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.

Academic dishonesty 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 for more information.

Late Work

Work not submitted by established deadlines is subject to penalty. From the score earned, penalties will be assessed as follows: 1 day=1 FULL letter grade; 2 days=2 FULL letter grades; 3 days beyond established deadline=automatic failure. Revised work is due within 2 weeks of materials being returned to you by class facilitator, or as per group consensus with facilitator.

Cellular Phones

As a courtesy to others, cellular phones are to be shut off and stored during class periods. If cell phones are being observed used during class sessions, you will be asked to cease. Repeat offenses will result in loss of points from class participation for that day.

UWSP Policies

Learners with questions regarding affirmative action, equal opportunity, harassment, or information about any other college policies may refer to the current college catalog or student handbook.

ADA Statement

In compliance with the Americans with Disabilities Act, students are encouraged to register with UWSP Disability Services for assistance with accommodations. It is the student's responsibility to voluntarily and confidentially disclose information regarding the nature and extent of a disability. The college cannot assume responsibility for providing accommodations or services to students who have not identified themselves as having a qualifying disability. Disabilities Services is located on campus at 103 Student Services Center, 1108 Fremont Street, UW-Stevens Point, Stevens Point, WI 54481.

Accreditation

UWSP is nationally accredited. As part of accreditation processes, your work is routinely used to illustrate achievement of performance and learning outcomes. If you do not want your course materials used for this process, please inform your course facilitator at the beginning of the semester. All information is used in aggregate, and not segregated. Work may be used as examples illustrating achievement of accreditation requirements.

Additional Course Resources & Reference Texts:

Murphy, T. (2004). Case Studies in Biomedical Research Ethics, 1st Ed. ISBN: 13: 978-0262632867 ISBN-10: 0262632861. Excerpted and utilized as a reference and as practical exercises.

Hoffman, A. (2010). Scientific Writing & Communication: Papers, Proposals & Presentations, 1st Ed. ISBN: 978-0-19-539005-6. Excerpted and utilized as a reference and as practical exercises.

Makely, S. (2009). Professionalism in Health Care: a Primer for Career Success, 3rd Ed. ISBN: 978-0-13-515387-1. Excerpted and utilized as a reference and as practical exercises.

Rosenberg, M. (2005). We Can Work It Out: Resolving Conflicts Peacefully and Powerfully, ISBN:978-1-892005-12-0. Excerpted online as reference and lessons in conflict management.

The course facilitator reserves the right to make changes to syllabi, or course content at their discretion anytime during the semester. Any in class announcements (either verbal or written) are considered an official addendum to the syllabus. It is the students' responsibility to know what changes have been made. It is also the students' responsibility to check official UWSP email, and/or D2L frequently for course announcements.