

HSC3057

RESEARCH METHODS AND ISSUES IN HEALTH SCIENCE

Instructor: Mike Moorhouse, PhD

Office: HPNP, Room 4148

Office Hours: Tuesdays/Wednesdays 4p-5p, or by Appointment

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CLASS NUMBER: 12875	TUESDAY	3 RD PERIOD	9:35A-10:25A	ROOM: HPNP, G-312
CLASS NUMBER: 12876	TUESDAY	4 TH PERIOD	10:40A-11:30A	ROOM: HPNP, G-312
CLASS NUMBER: 12877	TUESDAY	8 TH PERIOD	3:00P-3:50P	ROOM: COMMUNICORE, CG-11
CLASS NUMBER: 12878	WEDNESDAY	4 TH PERIOD	10:40A-11:30A	ROOM: HPNP, G-312
CLASS NUMBER: 12879	WEDNESDAY	5 TH PERIOD	11:45A-12:35P	ROOM: HPNP, G-312
CLASS NUMBER: 12880	WEDNESDAY	8 TH PERIOD	3:00P-3:50P	ROOM: COMMUNICORE, CG-11

Course Overview

This course provides an overview of common methodological approaches used for health science research, and learn how to obtain, decipher, and critique research for clinical practice. We will use various instructional methods including online lectures, group work, class discussion, quizzes, and exams.

Course Objectives

It is expected that by the end of this course students will be able to:

1. Define the major tenets of quantitative and qualitative research approaches.
2. Compare and contrast the key features of comparison and observational research designs.
3. Determine the appropriate statistical test for parametric and non-parametric studies.
4. Calculate odds ratios and relative risks for observation studies.
5. Interpret test significance, confidence intervals, and effect sizes.
6. Define probabilistic and non-probabilistic sampling techniques.
7. Summarize basic ethical considerations when conducting human subject research.

Course Materials

Textbook There is no required textbook for this course however students will be required to view all online material including lectures and videos prior to class.

Technology Required Equipment: Computer with high-speed internet access, and use of a supported browser with Lockdown Browser capability. To access this course on Canvas, you will use your Gatorlink ID and password to login.

For technical support for this class, please contact the UF Help Desk by:

- Calling (352) 392-HELP (option 2),
- Emailing learning-support@ufl.edu, or
- Going to lss.at.ufl.edu/help.shtm

Requirements/Evaluation

Syllabus Quiz (4 Points, 4% of Total Grade) Students complete an 8-question syllabus quiz about the course material. Students may take the quiz as many times as necessary to earn the 100%.

Introduction Video (3 Points, 3% of Total Grade) Students will submit a brief video introducing themselves. Specific instructions will be provided on Canvas.

Exams (20 Points Each, 40% of Total Grade) Students will take 2, 40-question multiple choice exams. All questions will be taken directly from recorded lectures and class discussion; and each question is worth .5 points. Exams will be administered as in-person assembly exams in the HPNP building on Wednesday evenings during week 8 (2/28) and week 16 (4/24). During those weeks, class will be optional and serve as a review. Students attending class those days are eligible for exam remediation the following week. ***Any student caught cheating on an exam will, at minimum, receive a zero for the exam, lose a full letter grade in the course (minus 10%), and be reported to UF's Dean of Students Office.***

Check-In Quizzes (2 Points Each, 20% of Total Grade) Prior to the week of class, students will complete a 4-question quiz covering that week's material (e.g., lectures, videos). Each quiz is worth 2 points and the lowest two quiz grades (of the 12 quizzes taken) will be automatically dropped. Students are free to use their notes and/or reference the recorded lectures to complete the quizzes. There are no time limits for the quizzes, but each quiz is due the Sunday before class by 11:59p.

In-Class Activities (3 Points Each, 33% of Total Grade) During class, students will participate in either: (1) a class discussion, (2) an individual/group work activity, or (3) a trivia bowl. Following class discussion days, each student will submit a 150-word (minimum) Reaction Paper before midnight the day of class regarding a topic of the instructor's choosing. On individual/group work activity days, students will begin by completing an electronic worksheet (via Canvas). After a period of time, students will convene in their groups to compare/discuss their answers, followed by the instructor reviewing the answers. All students will receive full credit for the worksheet regardless of their "score." For trivia bowl days, students will form into their teams and compete in a quiz game. A new group member will rotate in will rotate in for the next question until all team members have participated. After the quiz bowl ends, teams will work together to submit one exam question based upon the instructor's prompt. The group must have their question submitted before midnight the day of class. Only 11 of the 12 Activities (reaction papers, electronic worksheets, and proposed exam questions) will be needed to fulfill the total points toward your grade. Note: You must attend class to be eligible to complete any class activity. ***Students who do not attend class but upload a Reaction Paper, complete the Ind/Grp Worksheet, or are included on an Exam question submission will, at minimum, receive a zero for the assignment (cannot be dropped), lose a full letter grade in the course (minus 10%), and be reported to UF's Dean of Students Office.***

Point Breakdown / Grading Scale

Syllabus Quiz	4 Points	A	93-100 Points	=	4.00
Introduction Video	3 Points	A-	90-92.9 Points	=	3.67
Exam 1	20 Points	B+	87-89.9 Points	=	3.33
Exam 2	20 Points	B	83-86.9 Points	=	3.00
Check-In Quizzes	20 Points	B-	80-82.9 Points	=	2.67
In-Class Activities	33 Points	C+	77-79.9 Points	=	2.33
		C	70-76.9 Points	=	2.00
Total Points	100 Points	D+	67-69.9 Points	=	1.33
		D	63-65.9 Points	=	1.00
Extra Credit	5 Points	E	Less than 63 Points	=	0.00

General Information and Policies

Professionalism

Students are expected to conduct themselves in a professional manner in all communication with the course instructor and teaching assistants. Moreover, students are expected to arrive to class on-time and be respectful during class (e.g., no excessive talking/background distractions, no cell phone use, or distracting classmates).

Academic Honesty

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Violations of the Honor Code at the University of Florida will not be tolerated and will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code: www.dso.ufl.edu/sccr/process/student-conduct-honor-code/.

Collaboration Policy

Unless otherwise stated by written instructions, the preparation of all coursework should be done individually. If you are unsure about what level of collaboration is appropriate, ask the instructor before beginning any graded assignment.

Technology Policy

The use of any technology in class, including cell phones, computers, tablets, etc., is prohibited unless otherwise instructed by the instructor. All technology should be put away once class starts. Should you need to keep your cell phone on hand due to a personal reason, please inform the instructor prior to class.

Late Submission Policy

Check-In Quizzes will not be accepted after the deadline unless the student has an excused absence or been granted permission by the instructor. As a reminder, Check-In Quizzes are due the Sunday before the week of class by 11:59p. Conversely, In-Class Activities will be accepted for half credit (1 point) 24 hours after the due date. All assignments are due the day of class by 11:59p.

It is your responsibility to check that the correct assignment has been submitted to Canvas on time. If you submit the wrong assignment, Canvas allows you to resubmit the correct assignment before the deadline. Submitting the wrong Reaction Assignment and In-Class Assignment will be considered the same as not submitting the assignment at all and you will receive zero credit.

Make-Up Policy for Excused Absences

Make-ups may be granted for any portion of the class if based upon one of the following circumstances: (a) illness, (b) serious family emergencies, (c) military obligation, (d) religious holidays, (e) participation in official university activities, or (f) court-imposed legal obligations. For circumstances a. and b., students must contact the faculty via email within 48 hours of the missed exam/quiz/activity, and the faculty may request the student provide medical or other forms of documentation to validate the make-up.

For all other circumstances, students must contact the faculty at least 72 hours prior to the anticipated missed day and provide reasonable documentation confirming the obligation/activity. The instructor will provide make-up materials to the student and be given 1 week to complete the make-up.

Missed Exams/Check-In Quizzes, or failure to upload In-Class Activities due to severe weather or poor internet connectivity will be reviewed on a case-by-case basis. If you are unable to access consistent internet, please email the instructor ahead of time (if possible); otherwise email the instructor at the earliest time possible.

Positionality Statement

As a white, heterosexual, cisgender, able-bodied male, I recognize that my privilege insulates me from experiencing social and systemic discrimination, racism, oppression, rejection, or micro aggressions that many people have and continue to experience in their daily lives. This privilege is an inescapable part of my “identity” – something that has allowed me to never have to prove myself because of my sex or be uneasy walking into a room where no one looks like me or deny my authentic self for fear that family and friends will reject me. Moreover, my privilege has allowed me to navigate life largely unaffected by discriminatory practices, prejudicial policies, and implicit/explicit bias.

My lens, my values, my motivations have all been heavily influenced by my upbringing and my own lived experiences related to self-worth and inferiority. It is these experiences that drive me to champion diversity, equity, and inclusion inside and outside the classroom. I believe that we are all an intersection of vertical and horizontal identities that should be celebrated and affirmed, rather than hidden or oppressed. To that end, I strive to make safe and affirming spaces for all students regardless of race, ethnicity, sexual orientation, gender identity, or disability status; and hope to grow by becoming more educated and better understanding of the impact of social injustices.

Inclusive Learning Environment Policy

The College of Public Health and Health Professions believes in human dignity and respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida’s Non-Discrimination Policy, which reads, “The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans’ Readjustment Assistance Act.” If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu.

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling & Wellness

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center (352) 392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: www.counseling.ufl.edu. Online and in-person assistance is available.
- U Matter, We Care website: www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on

Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at (352) 392-0627 or check out the web site at: www.shcc.ufl.edu/.

- Crisis intervention is always available 24 hours a day, 7 days a week from the Alachua County Crisis Center at: www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx, or call (352) 264-6789.

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Policy Related to Guests Attending Class

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy: <http://facstaff.php.ufl.edu/services/resourceguide/getstarted.htm>

Online Faculty Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give professional and respectful feedback is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Calendar

*Subject to Change

	Before Class	During Class
Week 1	None	Syllabus Review Complete Syllabus Quiz Complete Introduction Video
Week 2	Watch: Research Paradigms Watch: Basic Quantitative Research Variables Watch: Last Week Tonight with John Oliver Complete: Check-In Quiz	Discussion: Why Humans Are Bad At Research? Complete Reaction Paper
Week 3	Watch: General Designs for Examining Causality Watch: Choosing A General Designs Complete: Check-In Quiz	Quiz Bowl: Research Variables, General Research Designs Group Question Submission
Week 4	Watch: Formulating Clinical Questions: PICO Watch: Searching Databases For Literature Complete: Check-In Quiz	Discussion: EBM in a World of Mis/Disinformation Complete Reaction Paper
Week 5	Watch: Sampling Strategies Watch: Understanding Generalizability Complete: Check-In Quiz	In-Class Assignment: Sampling In-Class Individual/Group Worksheet
Week 6	Watch: Experimental Designs Watch: Threats to Internal Validity Complete: Check-In Quiz	In-Class Assignment: Experimental Designs and Threats In-Class Individual/Group Worksheet
Week 7	Watch: Clinical Trials Watch: Observational Designs Complete: Check-In Quiz	Quiz Bowl: Sampling, Threats to Interval Validity, Clinical Trials Group Question Submission
Week 8	None	Content Review (Optional) Exam 1

Week 9	Watch: Types of Data Watch: Measuring Variables Complete: Check-In Quiz	Discussion: How Demographic Variables Are Limiting Complete Reaction Paper
Week 10	Spring Break	None
Week 11	Watch: Statistical Significance Testing Watch: Effect Sizes and Confidence Intervals Complete: Check-In Quiz	In-Class Assignment: Interpreting Results In-Class Individual/Group Worksheet
Week 12	Watch: Choosing the Correct Statistical Test Complete: Check-In Quiz	Quiz Bowl: SST, Effect Sizes, CIs, Choosing Correct Test Group Question Submission
Week 13	Watch: Critiquing Research Articles Watch: Presenting Research Complete: Check-In Quiz	In-Class Assignment: Evaluate an Article In-Class Individual/Group Worksheet
Week 14	Watch: Qualitative Research Watch: Conducting Interviews or Focus Groups Complete: Check-In Quiz	Quiz Bowl: Qualitative Research, Interviews/Focus Groups Group Question Submission
Week 15	Watch: Research Ethics Complete: Check-In Quiz	Discussion: Henrietta Lacks Complete Reaction Paper
Week 16	None	Content Review (Optional) Exam 2