

HSC3057

RESEARCH METHODS AND ISSUES IN HEALTH SCIENCE

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CLASS NUMBER: 12131	MONDAY	2 ND PERIOD	830A-920A	ROOM: CG-011
CLASS NUMBER: 12132	MONDAY	3 RD PERIOD	935A-1025A	ROOM: CG-011
CLASS NUMBER: 12133	MONDAY	5 TH PERIOD	1145A-1235P	ROOM: CG-011
CLASS NUMBER: 12134	TUESDAY	2 ND PERIOD	830A-920A	ROOM: CG-024
CLASS NUMBER: 12135	TUESDAY	3 RD PERIOD	935A-1025A	ROOM: CG-024
CLASS NUMBER: 12136	TUESDAY	5 TH PERIOD	1145A-1235P	ROOM: CG-011
CLASS NUMBER: 25814	WEDNESDAY	2 ND PERIOD	830A-920A	ROOM: CG-011
CLASS NUMBER: 25815	WEDNESDAY	3 RD PERIOD	935A-1025A	ROOM: CG-011
CLASS NUMBER: 25813	WEDNESDAY	5 TH PERIOD	1145A-1235P	ROOM: CG-011

Prerequisites

Sophomore standing, PSY2012, STA2023, and Health Science, Public Health, or Communication Sciences and Disorders major or Applied Brain Science minor.

Course Overview

This course introduces research methods in health science, focusing on the principles and practices essential for conducting and evaluating research. Students will explore both qualitative and quantitative methodologies, understanding how to design studies, collect data, and analyze results in health-related contexts. Material will be delivered by way of recorded lectures, class discussion, and small group work. Key topics include sampling, measurement, ethical considerations, and the use of statistical tools to assess outcomes. By the end of the course, students will be equipped to critically evaluate research studies and apply research techniques in various health science fields.

Relation to Program Outcomes

This course introduces, reinforces, and assesses the Health Science major Student Learning Outcome 4 (Critical Thinking) - Develop and apply critical analysis skills to contemporary health issues; as well as introduces and reinforces the Public Health major Student Learning Outcome 3 (Critical Thinking) - Identify, critically evaluate and interpret, and propose strategies, solutions, and interventions to address public health challenges.

Course Objectives

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

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

Blended Learning

What is blended learning and why is it important? A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you? You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

Course Materials and Technology

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 helpdesk@ufl.edu, or

Going to <https://helpdesk.ufl.edu>

Requirements/Evaluation

Syllabus Quiz (3 Points, 3% of Total Grade) Students complete a 6-question syllabus quiz about the course material. Students may take the quiz as many times as necessary until the due date to earn the 100%.

Introduction Video (2 Points, 2% of Total Grade) Students will submit a brief video introducing themselves. Specific instructions will be provided on Canvas.

Exams (40 Points, 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 Thursday evenings during week 8 (3/6) and week 15 (4/24). Each exam day, students will have the option to sign up to take the exam at either 5p or 7p. During those weeks, class will be optional and serve as a review. Students attending class those days will become eligible for exam remediation the following week.

In-Class Assignments (20 Points; 2 Points Each, 20% of Total Grade) Each week, students will participate in either a class discussion, or an individual/group worksheet activity. Following class discussions, each student will submit a 200-word (minimum) *Reaction Paper* before midnight the day after class regarding a topic of the instructor's choosing. If a student cites material to support their reaction, an APA formatted citation should be included. On *Worksheet* days, students will begin by individually completing a worksheet (via Canvas). After 20 minutes, students will convene in their groups to compare/discuss their answers, followed by the instructor reviewing the answers. Students receive full credit for uploading their worksheet prior to the due date. Note: You must attend class to be eligible to complete any class activity. Students excused from class are not permitted to complete the in-class assignment but will be provided a make-up assignment to earn the points.

Professionalism (5 Points, 5% of Total Grade) Students are expected to arrive on time and come to class fully prepared with necessary materials and completed assignments. All interactions—whether with the instructor or peers—should demonstrate courtesy, active listening, and professionalism, avoiding disruptions or inappropriate behavior. When engaging in class discussions, group work, and other activities, students should contribute thoughtfully and respect differing perspectives. Students are required to have their cell phones put away throughout the duration of class.

Perusall Lecture Engagement (20 Points, 4 Points Each, 20% of Total Grade) As part of the research study, students will complete a Perusall training and watch/engage with four course lectures through Perusall, an interactive social learning platform designed to foster active learning and collaboration. Perusall enables students to interact with lecture materials by: (1) *community content*, (2) *engaging actively*, and (3) *peer interaction*. Half of the class sections will use Perusall during weeks 4–7, while the other half will use it during weeks 11–14. Your section’s schedule for Perusall activities will be announced at the start of the semester. Students must complete a brief training module two weeks before their assigned Perusall lectures. This training will explain how to navigate the platform and successfully participate in Perusall-based assignments.

Research Study Questionnaires (10 Points, 2 Points Each, 10% of Total Grade) To support the research study and enhance your learning experience, students will complete brief questionnaires at three points during the semester: Week 1, Week 8, and Week 15. The Community of Inquiry (COI) is designed to measure students’ perceptions of social, cognitive, and teaching presence in the course (Weeks 1 and 15 only). Additionally, the Students Course Engagement Questionnaire (SCEQ) gauges a student’s engagement with course material, activities, and overall learning experiences (Weeks 1, 8, and 15). Your responses will provide valuable insights into how the course design impacts student learning and engagement, contributing to both the research study and potential improvements to the course.

Point Breakdown / Grading Scale

Syllabus Quiz	3 Points Total	A	93-100 Points	=	4.00
Introduction Video	2 Points Total	A-	90-92.9 Points	=	3.67
Exams (x2)	40 Points Total	B+	87-89.9 Points	=	3.33
In-Class Activities (x10)	20 Points Total	B	83-86.9 Points	=	3.00
Professionalism	5 Points Total	B-	80-82.9 Points	=	2.67
Perusall Lecture Engagement (x4)	20 Points Total	C+	77-79.9 Points	=	2.33
Research Study Questionnaires (x5)	10 Points Total	C	70-76.9 Points	=	2.00
		D+	67-69.9 Points	=	1.33
Total Points	100 Points	D	63-65.9 Points	=	1.00
		E	Less than 63 Points	=	0.00

More information on UF grading policy may be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Class Policies

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.

Class Attendance

Attendance is required, and students are expected to attend their designated class section each week. Attendance will be recorded, and students with excused absences will have the opportunity to complete a makeup assignment. However, to maintain consistency and accountability, students who miss class—whether their absence is excused or unexcused—may not complete or submit the in-class assignment for that day (reaction paper or worksheet). Students who do not attend class but submit the in-class assignment will be considered in violation of the student honor code.

Classroom Etiquette

Students are expected to maintain professionalism in all interactions with the course instructor and teaching assistants. Punctuality is essential—arrive on time, come prepared, and remain respectful throughout class. This includes avoiding behaviors that disrupt the learning environment, such as excessive talking, creating background noise, or distracting classmates. Cell phones must be turned off or silenced and stored away before class begins. If you have a personal reason for needing your phone during class, notify the instructor in advance. On designated class discussion days, the use of technology, including laptops, tablets, and other devices, is prohibited unless explicitly authorized by the instructor.

Academic Dishonesty

Instances of cheating or inappropriate behavior will not be considered violations of the Student Honor Code and will result in disciplinary action.

- *Cheating* - includes using unauthorized sources of information and providing or receiving unauthorized assistance on any form of academic work or engaging in any behavior specifically prohibited by the faculty member. This includes sharing questions and material covered on quizzes. It also includes using unauthorized materials during exams.
- *Plagiarism* - includes the copying of language, structure, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment. If you want to self-check your work, use Turn It In.
- *Unauthorized Possession or Disposition of Academic Materials* - includes the unauthorized selling, trading, or purchasing of quizzes or other academic work (including homework and activities); stealing another student's work; unauthorized entry to or use of material in a computer file; and using information from or possessing exams that an instructor did not authorize for release to students.
- *Falsification* - any untruth, either verbal or written, in one's academic work.
- *Facilitation* - knowingly assisting another to commit an act of academic misconduct.

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: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

Late Submissions

Late in-class assignments will not be accepted. All class assignments are due by 1159 PM the day after your class meets. For example, if your section meets on Tuesday during 2nd period, your assignment for that week must be submitted no later than Wednesday at 1159 PM. It is your responsibility to ensure that the correct assignment is submitted to Canvas on time. Canvas allows you to resubmit assignments before the deadline if you mistakenly upload an incorrect file. However, failure to submit the correct assignment before the deadline will result in a zero, as submitting the wrong file is treated as a non-submission. Carefully double-check your submission to avoid penalties and ensure you receive credit for your work.

Make-Ups 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, (f) court-imposed legal obligations, or (g) professional development opportunities. For circumstances a. and b., students must contact the faculty via email within 48 hours of the missed exam/assignment, 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 the student will be given 1 week to complete the make-up. Please refer to UF's absence policy to ensure you meet UF policy on make-up work: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencestext>. Failure to upload an in-class assignment 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.

Recording Within the Course

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

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.html>

College Policies and Additional Academic Resources

Inclusive Learning Environment Policy

Public health and health professions are based on the belief in human dignity and on 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."

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 that may interfere with their academic performance. 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.

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need or visit the [Student Health Care Center website](#).

University Police Department: Visit [UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the [UF Health Emergency Room and Trauma Center website](#).

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-2734450.

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.

General Resources

[Career Connections Center:](#) Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

[Library Support:](#) Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center:](#) Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

[Writing Studio:](#) 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information.](#)

On-Line Students Complaints: [View the Distance Learning Student Complaint Process](#)

Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information.](#)

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 feedback in a professional and respectful manner 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)

Research Study / Perusall Schedule

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
12131 (M2) 12135 (T3) 12136 (T5) 25814 (W3) 25813 (W5)	COI + SCEQ	Training		Perusall	Perusall	Perusall	Perusall	SCEQ							COI + SCEQ
12132 (M3) 12133 (M5) 12134 (T2) 25815 (W3)	COI + SCEQ							SCEQ	Training		Perusall	Perusall	Perusall	Perusall	COI + SCEQ

Week 1: January 13 – January 17

	Review Syllabus Review Course Research Study and Perusall	Syllabus Quiz Introduction Video COI and SCEQ Assessments
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Week 2: January 20– January 24

L1: Differentiating Quantitative and Qualitative Research L2: Quantitative Research Validities Optional Check-In Quiz	No Class	Complete Perusall Training (certain sections only)
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Week 3: January 27 – January 31

L1: Research Variables L2: Writing Research Hypotheses L3: Search Engine Strategies Optional Check-In Quiz	Discussion: Why Humans Are Bad at Research	Upload Reaction Paper
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Week 4: February 3 – February 7

L1: General Designs for Examining Causality L2: Choosing Experimental or Observational Designs Video: Last Week Tonight with John Oliver Optional Check-In Quiz	Discussion: Mis/Disinformation in Healthcare Research	Upload Reaction Paper
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Week 5: February 10 – February 14

L1: Understanding External Validity L2: Probabilistic Sampling L3: Non-Probabilistic Sampling Optional Check-In Quiz	Individual/Group Worksheet	Upload Worksheet
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Week 6: February 17 – February 21

L1: Deeper Look at Experimental Designs L2: Threats to Internal Validity Optional Check-In Quiz	Discussion: The Dangers of Demographic Variables	Upload Reaction Paper
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Week 7: February 24 – February 28

L1: Deeper Look at Observational Designs L2: Calculating Odds Ratios and Relative Risks Optional Check-In Quiz	Individual/Group Worksheet	Upload Worksheet
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Week 8: March 3 – March 7

	Content Review (Optional) <i>*Only students attending the content review are eligible for exam remediation*</i>	Exam 1: Thursday March 6 at 5p or 7p SCEQ Assessment (after exam)
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Week 9: March 10 – March 14

L1: Types of Data L2: Measuring Variable Optional Check-In Quiz	Discussion: Why Most Assessments Are Flawed	Upload Reaction Paper Complete Perusal Training (certain sections only)
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Week 10: March 17 – March 21

SPRING BREAK

Week 11: March 24 – March 28

L1: Choosing the Correct Statistical Test Optional Check-In Quiz	Discussion: The NIH Budget is What?	Upload Reaction Paper
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Week 12: March 31 – April 4

L1: Statistical Significance Testing L2: Effect Sizes and Confidence Intervals Optional Check-In Quiz	Individual/Group Worksheet	Upload Worksheet
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Week 13: April 7 – April 11

L1: Qualitative Research Validities L2: Qualitative Approaches and Coding L3: Ways to Ensure Qualitative Trustworthiness Optional Check-In Quiz	Individual/Group Worksheet	Upload Worksheet
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Week 14: April 14 – April 18

L1: Research Ethics L2: Writing Clinical Questions and PICO L3: Clinical Trial Phases Optional Check-In Quiz	Discussion: Henrietta Lacks and the HeLa Line	Upload Reaction Paper
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Week 15: April 21 – April 25

	Content Review (Optional) <i>*Only students attending the content review are eligible for exam remediation*</i>	Exam 2: Thursday April 24 at 5p or 7p COI and SCEQ Assessments (after exam)
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