



HSC 4730 – 0009: Applied Health Research Methods (3 credits)

Department of Health Sciences
College of Health Professions and Sciences, University of Central Florida

COURSE SYLLABUS

Professor:	Keith Brazendale, PhD, MSc	Term:	Spring 2022
Office:	HS II – 211	Class Days:	Tue/Thu
Email:	keith.brazendale@ucf.edu	Class Hours:	12:00PM-1:15PM
Telephone:	407-823-0786	Class Locations:	HS1 O126
Virtual Office	Tue: 9:30-12:00PM		
Hours:	Thu: 9:30-12:00PM		
	<i>or by appointment (e-mail to schedule)</i>		

Part 1 – Course Overview

I. Course Description

This course offers a comprehensive overview of the methods and skills needed to design and apply health research. The course will cover a broad range of research areas including: how to draft a research proposal/form a research question, design appropriate protocols to answer the research question, identify ethical research (e.g., IRB guidelines, patient safety and rights), and present and disseminate in a professional/scientific setting. Course content focuses on the research process spectrum from the conception of a research question, to the drafting of a proposal, to the presentation of said proposal at a research symposium.

HSC 4730 is designated as a Research-Intensive (RI) course. This designation will be noted on your transcripts. Your active engagement in the research and/or creative scholarship process will be the core of your learning experience in this course. A significant portion of your grade for **HSC 4730** will be derived from both your active participation in the research process and the tangible course-related project(s) that comes out of said project. If you have any questions about this designation, please ask your course instructor.

II. Course Objectives

Upon completion of this course, the student will be able to:

- Identify core concepts of health research methodologies
- Critically analyze published health research
- Articulate a human subjects health-related research question
- Design a human subjects research study in a health-related field
- Effectively present and discuss research concepts in a public forum

III. Course Prerequisites

Statistics and junior or senior standing

IV. Texts and Materials

- Title (RECOMMENDED):** Introduction to Health Research Methods: A practical guide (3rd Ed.)
Author: Jacobsen, KH
Publisher: Jones & Bartlett Learning, 2021

To enhance your learning experience and provide affordable access to the right course material, this course is part of an inclusive access model called First Day™. You can easily access the required materials for this course at a discounted price, and benefit from single sign-on access with no codes required in UCF Webcourses.



Please watch this 3-minute instructional video on how to set-up Day First Day™
<https://vimeo.com/306061595>

Please note: *UCF Student Accounts* will bill you at the discounted price as a course charge for this course.

V. Grades

Assessment	Points	Due Date(s)
Course Tasks		
Pre/Post Engagement Activity (5pts each)	10	Jan 14 th , Apr 29 th
Citi Certification	30	Feb 25 th
Article Reviews (3 @ 20 pts)	60	Feb 16 th , Mar 16 th , Apr 6 th
Examinations (2 @ 50 pts)	100	Mar 3 rd , Apr 14 th
Class Attendance	20	All semester
Final Project		
Team Research Proposal Document	150	Apr 21 st
Team Research Proposal Poster	50	Apr 21 st
%Effort (extra credit)	5 (max)	Apr 21 st
Total Points (excluding extra credit)	420	

Letter Grade	Scale (%)
A	90-100
B	80-89
C	70-79
D	60-69
F	<60

Please note the following:

- There is no +/- system for grades. For example, there is no B+ or A- grade. Those grades would be a B or an A, respectively. A 79 (C) will not be rounded to a (B). However, a 79.48 is rounded to 79.5, and will be rounded to an 80. Further, an "A" equates to **EXCELLENT** performance, a "B" equates to **GOOD** performance, a "C" equates to **AVERAGE** performance, a "D" equates to **BELOW AVERAGE** performance, and an "F" equates to **FAILING**.
- There is a university requirement for student engagement in this course. This needs to be completed by the first Friday of the semester by 11:59 pm.**
- If you do not complete this assignment by the date/time above, your financial aid might be affected. This assignment is worth 5 points. If you complete it by the due date and time all 5 points will be awarded. All late work will be given a 0. If you are a late add, giving me proof of the late addition will get you a 1-week extension. All scoring rules above apply with the new timeline for those individuals. More information can be found here: <http://online.ucf.edu/teach-online/resources/financial-aid>

VI. Academic Behavior Standards

- The University of Central Florida is committed to a policy of honesty in academic affairs. UCF faculty supports the UCF Creed.
 - Integrity* - practicing and defending academic and personal honesty - is the first tenet of the UCF Creed. This is in part a reflection of the second tenet...



- ii. *Scholarship*: - I will cherish and honor learning as a fundamental purpose of membership in the UCF community.
- b) Course assignments and tests are designed to have educational value. The process of preparing for, and completing, these exercises will help improve your skills and knowledge. Material presented to satisfy course requirements is therefore expected to be the result of your own original scholarly efforts.
- c) Plagiarism and cheating - presenting another's ideas, arguments, words or images as your own, using unauthorized material, or giving or accepting unauthorized help on assignments or tests - contradict the educational value of these exercises.
 - i. **Cheating**, whereby non-permissive written, visual, or oral assistance including that obtained from another student is utilized on examinations, course assignments, or projects. The unauthorized possession or use of examination or course related material might also constitute cheating.
 - ii. **Plagiarism**, whereby another's work is deliberately used or appropriated without any indication of the course, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials taken from another has plagiarized.
- d) A student who has assisted another in any of the aforementioned breach of standards shall be considered equally culpable. In cases of cheating or plagiarism, the instructor may take appropriate academic action ranging from loss of credit for a specific assignment, examination, or project to removal from the course with a grade of "F". Additionally, the instructor may request disciplinary action through the Dean of Students Office as outlined in The Golden Rule.

Statement on deployed active military student

- Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.

VII. Disability Access

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need disability-related access in this course should contact the professor as soon as possible. Students should also connect with Student Accessibility Services (SAS) <<http://sas.sdes.ucf.edu/>> (Ferrell Commons 185, sas@ucf.edu, phone 407-823-2371). Through Student Accessibility Services, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential access and accommodations that might be reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student.

VIII. Title IX

Title IX makes it clear that violence and harassment based on sex that interferes with educational opportunities is unlawful. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources, and information concerning reporting options at shield.ucf.edu. Perpetrators are subject to expulsion or termination and may also be subject to criminal penalties.

IX. Campus Safety Statement for Students

Emergencies on campus are rare, but if one should arise during class, everyone needs to work together. Students should be aware of their surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.



- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Students should make a note of the guide's physical location and review the online version at http://emergency.ucf.edu/emergency_guide.html.
- Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, students may need to access a first-aid kit or AED (Automated External Defibrillator). To learn where those are located, see <http://www.ehs.ucf.edu/AEDlocations-UCF> (click on link from menu on left).
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> and logging in. Click on "Student Self Service" located on the left side of the screen in the toolbar, scroll down to the blue "Personal Information" heading on the Student Center screen, click on "UCF Alert", fill out the information, including e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- Students with special needs related to emergency situations should speak with their instructors outside of class.
- To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing this video (<https://youtu.be/NIKYajEx4pk>).
- For COVID-19 information students can refer to the university's Emergency COVID Return Policy at <https://policies.ucf.edu/documents/PolicyEmergencyCOVIDReturnPolicy.pdf> and to the UCF Coronavirus site for more information at <https://www.ucf.edu/coronavirus/>.

X. Email Policy

In this class our official mode of communication is through email located inside Webcourses. All communication between student and instructor and between student and their classmates should be respectful and professional. **It is the student's responsibility to check the "coursemail" tool frequently.** You may also wish to create a Knight's Email account at www.knightsemail.ucf.edu for separate official communication from the university.

XI. Exams

There'll be **two** exams during the semester. The exam format will be multiple choice and true/false questions. Exams will be administered online via Webcourses and will **take place on the date presented in the course outline.**

Make-up exams will not be given unless there is an unforeseeable emergency (death in family, hospitalization, or some other equally pressing event), or activities related to university events, religious occasions, or military obligations. If this happens, you will need two things: **(a)** Expedient communication when this event happens and how/why it is affecting your presence at the exam(s) and **(b)** Formal and official documented proof of why you were absent must be offered. I will specify the time and date of make-up exams.

XII. COVID-19

I recognize and understand the difficult times we are all in. The COVID-19 pandemic impacts us all in many ways, including physically, mentally, emotionally, financially, academically, and professionally. I will work with you on challenges you may be encountering and to provide support to help you succeed. **However, please keep in mind that I will hold you accountable, especially in terms of class attendance, participation, and contributions.**

UCF expects that all members of our campus community who are able to do so get vaccinated, and we expect all members of our campus community to wear masks indoors, in line with the latest CDC guidelines.



Students who believe they may have been exposed to COVID-19 or who test positive must **contact UCF Student Health Services (407-823-2509)** so proper contact tracing procedures can take place. Students should not come to campus if they are ill, are experiencing any symptoms of COVID-19 or have tested positive for COVID-19.

Students should contact me as soon as possible if they miss class for any illness to discuss reasonable adjustments that might need to be made. When possible, students should contact me **before missing class**.

XIII. Changes to Syllabus

I reserve the right to make changes to the syllabus and course outline as deemed appropriate. Changes will be announced in Webcourses.

Part 2: Course Guidelines

I. Classroom Conduct:

I will conduct this class in an atmosphere of mutual respect. I encourage active participation in class. Each of us may have strongly differing opinions on the various topics of class discussions. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.

II. Electronic devices:

All electronic devices such as cell phones, etc. must be on silent. If there is an emergency, please leave the classroom to make a phone call.

III. Attendance, Lateness, and Class Participation:

I encourage you to attend and engage with all course material in order to attain the best possible experience from this class. **You will receive 20 points for attending 16 or more of the 23 available class sessions. No partial attendance will be given (i.e., present at 15 class sessions = 0 points). Attendance will be monitored using the 'UCF Here' app. There are 24 class sessions (excluding exams).**

IV. Please check Webcourses for announcements and pertinent information regularly (at least twice per week) in order to keep up to date with course material.

V. Article Review Task: Over the course of the semester you will complete 3 journal article reviews. I will assign you the peer-reviewed journal article. You must answer the questions pertaining to the article on Webcourses.

VI. Team Research Proposal:

Students will form a research team and will be required to produce a research proposal. This proposal must be health-related human subjects research and must propose primary data collection. On page 7 of this syllabus, you will find the **grading rubric** for the proposal. There are specific formatting requirements for this research proposal that are explained in the 'Proposal Writing Guide' - please pay attention to these.

Please refer to the **Proposal Writing Guide** and **previous 'sample' research proposals** as a framework when developing your proposal document.

All written documentation in this class is to follow the **American Medical Association (AMA)** for referencing peer-reviewed literature. Please use the following link to get familiar with the



formatting rules:

https://owl.purdue.edu/owl/research_and_citation/ama_style/index.html

Research Proposal Group Tasks: Throughout the course of the semester there will be class discussion and tasks that research teams will have to complete prior to class. These tasks/sessions are in place to help your group formulate a coherent, logical and informative research proposal so full participation is strongly encouraged and will be monitored.

VII. % Effort: At the end of your proposal your team is required to include a one-page document with each member's name and what % effort each put forth to develop the proposal document. It will include the names of team members (typed), the % effort they/you contributed to the creation/finalizing of the proposal, and each members' signature. The % effort across all members should sum up to 100%. If someone in the team does not agree with the % effort value being negotiated with the team, I will have to arbitrate the situation with the entire team. The decimal of that percentage (i.e. 20% = .20) will be multiplied by the integer, 5. This number will be your %effort grade on the research proposal and will be awarded as extra credit.

- i. **Please note:** Should you feel a team member is not contributing equally, I expect you to raise this concern with the individual first. If the problem persists, inform me. If I feel the issue is serious enough, I will call for a team meeting to address the concern. However, **do not wait until late in the semester to address the concern, and do not alter or change the '%Effort' unless agreed upon by every member of the team.**

VIII. Research Poster Presentations

- You are required to create a research poster for your research proposal.
- Please use the PowerPoint Poster template, previous examples of posters, and the document 'Tips on How to Construct a Quality Poster' as a guide for developing your poster. There will also be dedicated time in class where we will discuss research poster quality and presentation styles.
- The poster grading rubric can be found on **Page 8** of this syllabus.

'Research Symposium': Selected student groups will present their poster at the Department of Health Sciences Undergraduate Research Symposium where they will compete against students' from other sections of this class. The top 3 proposals from will be awarded gold, silver, and bronze certificates. Judges will be faculty from the CHPS who will score each poster and have time to ask each group questions regarding their research proposal/poster. This event will take place during/close to finals week (see course outline). **If you are selected to present at the symposium your group will be responsible for covering the cost of printing your poster (36" x 48"). Costs can vary from \$40-\$80.**

IX. CITI Certification

- Instructions on completing this task are posted to **Webcourses after Week 1 of class.**
- If you have already completed the certificates with another class, and **they have not expired**, you may upload these for this course assignment.

X. Readings

- Course readings are essential for a full understanding of the research process. You need to read/review the assigned chapters/articles ahead of class in order to earn the best possible grade and fully benefit from this course has to offer.



GRADING RUBRIC FOR RESEARCH PROPOSAL

PROPOSAL ITEM (150 pts total)	INSTRUCTOR GRADING CRITERIA: QUALITY SCALE			
	Complete/ Incomplete	LOW	AVERAGE	HIGH
Title Page (5 pts)	✓	N/A		
Structured Abstract (5 pts)	✓			
5 Keywords (5 pts)	✓			
Overall Abstract Quality (10 pts)	N/A	Abstract lacks <i>any</i> sort of coherence and presents irrelevant information and in the incorrect section.	Abstract contains <i>some</i> coherent statements but overall lacks conciseness and uses casual language.	Abstract is coherent, concise, and logical. Information presented is relevant and required.
Introduction (20 pts)	N/A	Introduction poorly constructed, lacks flow. Overall confusing and disjointed thoughts.	Introduction has some coherence and flow. Still lacking importance and significance of topic.	Introduction illustrates importance of topic and has logical and clear thought process.
Review (20 pts)	N/A	Review shows little attempt to review existing literature around topic of interest and lacks any additional thought.	Review shows some review of existing literature but does not elaborate on evidence presented.	Review shows comprehensive review of existing literature and provides critical thought.
Study Aim (5 pts)	N/A	Study aim not clearly presented and hard to disentangle	Study aim presented but using casual and careless language	Study aim clearly defined with intended variables of interest clearly defined
Study Design (5 pts)	N/A	Study design missing and/or confusing based on stated aims.	Study design stated but without any elaboration as to why it was chosen.	Study design clearly defined and justified and related to aims of proposal.
Protocol (20 pts)	N/A	Protocol disjointed, carelessly presented. Missing most components and detail on procedures	Protocol has some key elements but does not provide enough detail on study procedures.	Protocol clearly articulated in detail with all key components addressed and expanded upon
Measures (20 pts)	N/A	Insufficient information describing proposed measures, no justification of chosen method.	Some information describing measures, weak justification of chosen method.	Detailed information of measures, evidence-based justification of chosen method.
Data Analysis (10 pts)	N/A	No information given regarding data analysis or handling of key study variables.	Some information on proposed data analysis and description of key study variables.	Detailed explanation of key variables and analysis plan including statistical test information.
Expected Results (5 pts)	N/A	Little-to-no information presented on hypothesized results. A sentence or 2 on what researchers hope to find.	Some information presented on hypothesized results. Some attempt at figures but no hypotheses.	Detailed information presented on hypothesized results with figures and hypotheses statements. Secondary aims addressed.
Limitations (5 pts)	N/A	Missing study limitations, or minimal attempt at addressing study limitations.	Study limitations stated but without thought or logic.	Detailed and logical study limitations stated with rational provided.
Language and Grammar (5 pts)	N/A	Casual language with many grammatical mistakes throughout.	Some casual language with minor grammatical mistakes.	Scientific language throughout with little-to-no grammatical mistakes.
Formatting Requirements (5 pts)	N/A	Did not follow formatting instructions.	Some attention given to formatting instructions.	Specific attention given to formatting instructions.
Figures, tables and other content (5 pts)	N/A	No attempt made to incorporate content. Content not relevant to proposal.	Some attempt made to incorporate content but with lack of purpose.	Exemplary use of content, referred to in-text, and not over-used.



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POSTER GRADING RUBRIC

Subject to change

Review Areas	Points Awarded					Score
	5	10	15	20	25	
Organization and Content	<div>There is little logic to the organization of the information and/or the information presented is insufficient to support the premise of the proposal.</div> <div>➔</div> <div>The information is presented in a logical sequence and includes detailed information to support the premise of the proposal.</div>					
Visual Appeal and Mechanics	<div>Poster has minimal visual appeal and lacks use of any graphical content to support the research question.</div> <div>➔</div> <div>Poster is visually appealing with appropriate use of graphics, tables and figures related to the research question</div>					
Total (50 possible points)						



Week	Date	Topic	Readings/Events
1	Jan 11	Course Introduction & Expectations	Syllabus
	Jan 13	Research Overview	Ch. 1-4 Academic engagement assignment due Jan 14 th by 11:59pm complete 'Attitude Towards Research' Survey (pre)
2	Jan 18		
	Jan 20	Critical Thinking	Assigned reading: 'Storks Delivering Babies'
3	Jan 25	Study Designs	Ch. 7-14, 22
	Jan 27		
4	Feb 1	Guest Lecture: Shane Roopnarine, Subject Librarian	
	Feb 3	Reviewing Peer Reviewed Literature Class Workshop	<u>Research Proposal Team Selection Complete</u>
5	Feb 8	Study Designs	Ch. 7-14, 22
	Feb 10	Research Proposal Class Discussion 1	
6	Feb 15	Study Designs	Ch. 7-14, 22 Article Review 1 due Feb. 16 th by 11:59pm
	Feb 17	Sampling	Ch. 16-17
7	Feb 22	Developing your Research Proposal	Ch. 15, 25
	Feb 24	Instrumentation/Measures	Ch. 18-21 CITI Certification due Feb. 25 th by 11:59pm
8	Mar 1	Research Proposal Class Discussion 2	
	Mar 3	EXAM 1	
9	Mar 8	NO CLASS SPRING BREAK	
	Mar 10		
10	Mar 15	NO CLASS – READING DAY/PROPOSAL GROUP WORK Article Review 2 due Mar. 16 th by 11:59pm	
	Mar 17	Instrumentation/Measures	Ch. 18-21
11	Mar 22		
	Mar 24	Ethics in Research	Ch. 23 & 24
12	Mar 29	Research Proposal Class Discussion 3	



	Mar 31	Data Analysis	Ch. 26-29 Article Review 3 due Apr. 6th by 11:59pm
13	Apr 5		
	Apr 7		
14	Apr 12	Reporting, Writing, and Presenting Preparing a Research Poster	Ch. 31-35
	Apr 14	EXAM 2	
15	Apr 19	NO CLASS – READING DAY/PROPOSAL GROUP WORK	
	Apr 21	Research Proposal and Poster due by 11:59pm	
16	Apr 26	Department of Health Science Research Symposium (6:00-8:00pm)	
	Apr 28	<i>'Attitude Towards Research' Survey (post) due Apr 29th by 11:59pm</i>	