HHD 1031: Research in Sports Science (Fall 2024)
University of Pittsburgh
School of Education
Department of Health and Human Development
Health, Physical Activity, and Exercise Program

Instructors:	Chris Kline, PhD and Brian Galla, PhD
Class Schedule:	Tu/Th 11:00AM-12:15PM (sec 1030) or 1:00PM-2:15PM (sec 1035)
Class Location:	130 Trees Hall
Office Hours:	by appointment
Email:	chriskline@pitt.edu and gallabri@pitt.edu

LEARNING OBJECTIVES

Understand the process and ethics of research.
Learn how to read and interpret scientific research articles.
Understand the design, strengths, and weaknesses of different study types.
Propose, test, and report a research study question.

REQUIRED SOFTWARE

Excel (available for free through software downloads at my.pitt.edu)

GRADING

Attendance (10%): Students are expected to attend every class and participate in discussions. The instructors will take attendance during each class. Absences will be excused only with prior permission from the instructor. (Showing up to class late or leaving early—without prior permission—will result in half attendance points.)

Exam 1 (30%): The first exam will cover material from classes 1 to 13.

Exam 2 (30%): The second exam will cover material from classes 15 to 22.

Group Lab Report (20%): Groups will submit a lab report on a research topic developed during the semester.

Group Presentation (10%): Groups will showcase findings from their lab report to the class in a 10-minute presentation.

Grading Scale: Your final grade will be calculated by dividing the number of points earned by the number of points possible, weighted by each section.

A+	≥	**97%**	**C+**	=	**77-79.99%**
A	=	**94-96.99%**	**C**	=	**74-76.99%**
A-	=	**90-93.99%**	**C-**	=	**70-73.99%**
B+	=	**87-89.99%**	**D+**	=	**67-69.99%**
B	=	**84-86.99%**	**D**	=	**64-66.99%**
B-	=	**80-83.99%**	**D-**	=	**60-63.99%**
			F	<	**60%**

THE FINE PRINT

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. A minimum sanction of a zero score for the assignment will be imposed for any assignments that violate these obligations, with possible additional consequences, including failure of the course for the semester.

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

Use of cell phones during class will not be permitted. Please silence your phones during the class period.

SCHEDULE OF CLASSES

The following course schedule may change at the discretion of the instructors. We will notify students via Canvas about any changes made to the schedule. All class materials will be made available on Canvas before each class.

Date	Topic	Assignments
Class 1 8/27 Kline/Galla	**Introduction to Research** **Parts of a Research Paper** Lab: Basic Research Concepts	
Class 2 8/29 Galla	**Research Ethics** Lab: Case Studies in Research Ethics	Class 2 Online Lecture and Lab
Class 3 9/3 Kline	**Measurement in Research I** Lab: Measuring Physical Activity	Class 3 Online Lecture and Lab
Class 4 9/5 Kline	**Basic Statistical Concepts and Measurement in Research II** Lab: Statistics used to test Validity and Reliability	Class 4 Online Lecture and Lab
Class 5 9/10 Galla	**Survey Research I** Lab: Survey Research Statistics Sampling and Population Statistics	Class 5 Online Lecture and Lab
Class 6 9/12 Kline	**Measurement in Research III** Lab: Measurement Article Review 'Validity of reliability of the Fitbit Zip as a measure of preschool children's step count' Sharp et al. 2017	Class 6 Lab
Class 7 9/17 Galla	**Survey Research II** Lab: Survey Research Article 'Trends in meeting physical activity guidelines among urban and rural dwelling adults' by Whitfield et al. 2019	Class 7 Online Video and Lab
Class 8 9/19 Kline	**Conducting Literature Searches**	Class 8 Online Lecture and Lab
Class 9 9/24 Galla	**Survey Research III** Lab: Group Survey Decision	*Bring Questionnaire for Group Lab Report to Class*
Class 10 9/26 Kline	**Epidemiological Research I** Lab: Inferring Cause and Effect from Epidemiological Study Designs	Class 10 Online Lecture and Lab

SCHEDULE OF CLASSES (CONT'D)

Date	Topic	Assignments
Class 11 10/1 Galla	**Associations and Predictions** Lab: Correlations and Linear Regression	Class 11 Online Lecture and Lab
Class 12 10/3 Kline	**Epidemiological Research II** Lab: Epidemiological Study Article 'Steps per day and all-cause mortality in middle-aged adults…' by Paluch et al. 2021	Class 12 Lab
Class 13 10/8 Galla	**Exam 1 Review**	
Class 14 10/10 Kline	Class 14 **Exam 1**	
Class 15 10/17 Kline	**Experimental Research I** Lab: Internal/External Validity	Class 15 Online Lecture and Lab
Class 16 10/22 Galla	**Group Comparisons** Lab: Group Comparisons	Class 16 Online Lecture and Lab
Class 17 10/24 Galla	**Experimental Research II** Lab: Strengths and Weaknesses of Experimental Designs	Class 17 Online Lecture and Lab
Class 18 10/29 Kline	**Experimental Research III** Lab 17: Randomized Crossover Study Article 'Energy expenditure in vinyasa yoga vs. walking' by Sherman et al. 2017	Class 18 Lab
Class 19 10/31 Galla	**Experimental Research IV** Lab 18: Randomized Controlled Trial Article 'Polarized training has greater impact on key endurance variables than threshold, high intensity, or high volume training' by Stoggl and Sperlich 2014	Class 19 Lab

SCHEDULE OF CLASSES (CONT'D)

Date	Topic	Assignments
Class 20 11/5 Galla	***Election Day – Remote Class*** **Systematic Review & Meta-Analysis I** Lab: Interpreting Quality and Results of a Meta-Analysis	Class 20 Online Lecture and Lab *Complete Lab Outside Class*
Class 21 11/7 Kline	**Systematic Review & Meta-Analysis II** Lab: Meta-Analysis Article Review 'Impact of resistance training on blood pressure and other cardiovascular risk factors' by Cornelissen et al. 2010	Class 21 Lab
Class 22 11/12 Kline	**Exam 2 Review**	*Complete Online Qualtrics Survey for Group Lab Report*
Class 23 11/14 Galla	**Exam 2**	
Class 24 11/19 Kline/Galla	**Designing a Research Study** Lab: Writing your Group Lab Report – Introduction and Method	
Class 25 11/21 Kline/Galla	**Performing and Reporting a Research Study** Lab: Writing your Group Lab Report – Results and Discussion	
Class 26 12/3 Kline/Galla	Meetings with instructors to complete Group Lab Report	*Group Lab Report First Draft Due by 11:59PM*
Class 27 12/5 Kline/Galla	Meetings with instructors to work on presentations	
Class 28 12/10 Kline/Galla	Group Presentations	*Group Lab Report Final Version Due by Class Time*