Auburn University

College of Education

School of Kinesiology

Fall 2021

August 16 – December 3, 2021

1. Course Number: KINE7010

Course Title: Research Methods

Credit Hours: 3 semester hours

Class: MWF 11-12pm

Pre-Requisites: None

Co-Requisites: None

1. Instructor: Dr. Melissa Pangelinan, Ph.D.

Office: 168 School of Kinesiology Building (301 Wire Road)

Email: [melissa.pangelinan@auburn.edu](mailto:melissa.pangelinan@auburn.edu)

Office Hours: Th 11-12pm or by appointment via Zoom <https://auburn.zoom.us/j/89552391659>

1. Course Materials: Textbook: *Research Methods in Kinesiology and Health Sciences,* Susan Hall and Nancy Getchell. All course materials will be provided on Canvas.

1. Course Description: The purpose of this course is to train students in research approaches in kinesiology and physical activity. Emphasis is placed on understanding the scientific method, reviewing and critiquing the literature, technical writing, and research ethics. This is not a statistics class, but we will take the approach of including descriptions and examples of commonly used statistical procedures. Additional online material will be available to provide supplementary information regarding statistics. There will be occasions when it will be necessary to bring your laptop to class. There will be a great deal of student participation and class discussion.

1. Course Objectives / Student Learning Outcomes: At the end of this course, students will:
   1. Understand the different types of research (observational, experimental, qualitative, quantitative) that is conducted in kinesiology and physical activity.
   2. Have the skills to extract critical information from research articles and interpret tables/figures.
   3. Develop a research proposal that provides the concisely summarizes the foundation for the research, research questions, study aims, hypotheses, and significance of the study.
   4. Confidently present a research proposal so that the audience understands the foundation for the research, research questions, study aims, hypotheses, and significance of the study.
2. Student Learning Expectations:
   1. All students are expected to contribute to their own learning as active and well-prepared participants. Weekly modules will provide various opportunities for reading, reflection, applied experiences, collaboration, writing, and presenting.
   2. Please review the course schedule for days in which you are attending face-to-face and days in which you will meet with your group members face-to-face or virtually (either during the scheduled meeting time or outside class time).
   3. Your interactions via the discussion board, in class, and during your group meetings should always remain respectful. Please see Course Policies below for more details.
3. Requirements & Evaluation:
   1. Discussion/Participation (30%): Discussion questions will be posted on CANVAS. You will be required to post a response to a discussion question AND comment/like on another student’s post. In-class participation involves answering questions in class and participating in group activities.
   2. Quizzes (5%): Quizzes will be posted on CANVAS based on the book/lecture material.
   3. Oral Presentation of Research Proposal (25%): There are deadlines set for drafts of the PPT.
   4. Written Research Proposal (40%): There are deadlines set for drafts of the different components of the research proposal:
      1. Research topic (5 points),
      2. Submission of specific aims for peer review (5 points),
      3. Peer review of the specific aims (10 points),
      4. Peer review of the research presentation (10 points),
      5. Final draft (70 points).
   5. Grading Scale (100 possible points): A = 90-100%; B = 80-89%, C = 70-79%; D = 60-69%; F < 60%
   6. Late Assignments/Absences: Assignments turn in late will lose 10% of their maximum grade per day. If you are unable to attend class and therefore cannot turn in an assignment because of an emergency, you must notify me by email BEFORE class. If a due date conflicts with a religious holiday, you must notify me no later than 1 week prior to the class date. Every effort will be made to accommodate such a situation.
4. Course Policies
   1. Participation – Participation during each class session is necessary for student engagement and learning. As such, students are expected to be on time and stay for the full course duration, unless the student has contacted me in ADVANCE via email and has received an email from me confirming the absence.
   2. Plagiarism – Students are to uphold the University Academic Honesty Code. Please refer to the Student Policy eHandbook for more details: [www.auburn.edu/studentpolicies.](http://www.auburn.edu/studentpolicies)

**\*\*\* NOTE: Students should use the free version of Grammarly.com or a similar website to ensure that you have not plagiarized any material from your primary sources.\*\*\***

* 1. Statement of Student Accommodations – Student who request accommodations are asked to submit their approved accommodations through AU Access and arrange a meeting during the first week of class. If you have not established accommodations through the Office of Accessibility, but need accommodations, please make an appointment with the Office of Accessibility (1228 Haley Center, 334-844-2096).
  2. Classroom Policies / Professionalism – Students are expected to be on‐time, prepared (i.e., read the material for class and responded to online discussion posts), and respectful during class. Texting, emailing, or engaging in activities unrelated to class will not be tolerated.
  3. Diversity Statement: We are committed to creating an open, diverse, and inclusive academic and social environment.
  4. COVID-Related Policies: In the event that I experience an illness or COVID-related issue, the alternative instructor will be Emily Munn ([eem0012@auburn.edu](mailto:eem0012@auburn.edu)). In the event that you experience an illness or COVID-related absence:
     1. Notify me in advance of your absence, if possible
     2. Provide me with medical documentation, if possible
     3. Contact me and your group members if you are unable to keep up with your coursework or adhere to due dates outlined below
     4. If remaining in the class and fulfilling the necessary requirement becomes impossible due to illness or other COVID-related issues, please let me know ASAP so that we can discuss your options

1. Course Schedule

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| --- | --- | --- | --- |
| Date | Topic | Research Proposal Benchmarks | Additional Resources |
| M – 8/16 | Review of the syllabus and Ch. 1 – What is research? |  |  |
| W – 8/18 | Ch. 1 – The scientific method - ONLINE LECTURE |  |  |
| F – 8/20 | Ch. 1 – Types of research |  |  |
| M – 8/23 | Ch. 3 – Reviewing and critiquing the scientific literatures | Review discussion board regarding research topics to form groups |  |
| W – 8/25 | *Guest lecture by Todd Shipman meet at Mell* | SEND RESEARCH TOPICS TO DR. P FOR APPROVAL! | <https://www.youtube.com/watch?v=hXvoKE6_wQo> |
|  | Ch. 3 – Literature searches and literature review (see link under additional resources) | Set up slack channel for your group to organize responsibilities and communicate about the research project | <https://www.youtube.com/watch?v=lw8HPXJP1VA> |
| M – 8/30 | Ch. 4 – Developing a research proposal | Schedule a meeting with Dr. P to review your topic and get help with literature search |  |
| W – 9/1 | Ch. 4 – Developing a research proposal | Split up literature search between group members  -Weekly goal: update spreadsheet with at least 3 relevant articles per group member |  |
| F – 9/3 | ONLINE LECTURE – Developing a reference management system (see link under additional resources) | <https://www.youtube.com/watch?v=XTfVCiksapk> |
| M – 9/6 | NO CLASS – LABOR DAY |  |
| W – 9/8 | Components of a research proposal |  |
| F – 9/10 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations | Identify key themes in the articles (e.g., similar methods, similar findings) |  |
| M – 9/13 | Ch. 4 – Specific aims and hypotheses |  |
| W – 9/15 | Ch. 4 – Methodology |  |
| F – 9/17 | ONLINE LECTURE – CITI Certification – Dr. P is available for consultations |  | Crash course statistics #12 |
| M – 9/20 | Ch. 2 – Writing style | Outline the specific aims |  |
| W – 9/22 | Fine tune your specific aims and hypotheses |  |
| F – 9/24 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |
| M – 9/27 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations | Add details for each paragraph in the specific aims |  |
| W – 9/29 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |
| F – 10/1 | Ch. 6 – Understanding research – experimental | Crash course statistics #9 |
| M – 10/4 | Ch. 6 – Understanding research – experimental | SUBMIT DRAFT OF SPECIFIC AIMS FOR PEER REVIEW |  |
| W – 10/6 | Ch. 7 – Understanding research – descriptive |  | Crash course statistics #10 |
| F – 10/8 | NO CLASS – FALL BREAK |  |  |
| M – 10/11 | Ch. 7 – Understanding research – descriptive | SUBMIT PEER REVIEW OF SPECIFIC AIMS |  |
| W – 10/13 | Ch. 8 – Understanding research – qualitative | Incorporate feedback from peer review and add details to PPT draft |  |
| F – 10/15 | Ch. 9 – Understanding research – other |  |
| M – 10/18 | Writing the background section | Outline the background section |  |
| W – 10/20 | Ch. 10 – Descriptive statistics | Crash course statistics #3, 4 |
| F – 10/22 | Ch. 10 – P-values | Crash course statistics #21 |
| M – 10/25 | Ch. 11 – Correlation and Regression | Add details to each paragraph of the background section and add details to the PPT | Crash course statistics #8, 32 |
| W – 10/27 | Ch. 12 – T-Tests | Crash course statistics #26, 27 |
| F – 10/29 | Ch. 12 – Analysis of Variance (ANOVA) | Crash course statistics #33, 34, 35 |
| M – 11/1 | Writing a methods section | Write the methods section and add details to the PPT |  |
| W – 11/3 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |
| F – 11/5 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |
| M – 11/8 | Writing the expected results section and creating figures | Write the expected results section and add details the PPT  SUBMIT PPT TO DR. P FOR REVIEW (11/12) |  |
| W – 11/10 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |
| F – 11/12 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |
| M – 11/15 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations |  |  |
| W – 11/17 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations | Practice research presentations |  |
| F – 11/19 | MEET/ZOOM WITH GROUP – Dr. P is available for consultations | Practice research presentations |  |
| M – 11/22 | NO CLASS – THANKSGIVING BREAK |  |  |
| W – 11/24 | NO CLASS – THANKSGIVING BREAK |  |  |
| F – 11/26 | NO CLASS – THANKSGIVING BREAK |  |  |
| M – 11/29 | ZOOM – Research Presentations and Peer Review of Research Presentations  <https://auburn.zoom.us/j/89552391659> | SUBMIT FINAL RESEARCH PROPOSAL |  |
| W – 12/1 | ZOOM – Research Presentations and Peer Review of Research Presentations  <https://auburn.zoom.us/j/89552391659> |  |  |
| F – 12/3 | ZOOM – Research Presentations and Peer Review of Research Presentations  <https://auburn.zoom.us/j/89552391659> |  |  |