

UNDERGRADUATE RESEARCH METHODS

APK4050 ~ 3 CREDITS ~ FALL 2019

INSTRUCTOR:

Matt Terza Ph.D.

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Office Phone: 352-294-1716

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Preferred Method of Contact: email

OFFICE HOURS:

T 2:00-3:00, R 3:00-4:00 or by appointment

I also have an open door policy. If you come by randomly without an appointment or not during these times and my door is open you are welcome to talk to me but if my door is closed please respect my time to work and prepare for class.

MEETING TIME/LOCATION:

Section 24729: M, W, F | Period 8 (3:00 PM - 3:50 PM) FLG 280

Final Exam: 4/29/2020 @ 7:30 AM - 9:30 AM FLG 280

COURSE DESCRIPTION:

Provides an understanding of basic research methods and techniques used in applied physiology and kinesiology. Students will demonstrate their knowledge of the course materials by analyzing, interpreting and summarizing research writing in professional journals and by planning a research study. Credits: 3

PREREQUISITE KNOWLEDGE AND SKILLS:

APK major with 3, 4, 6 or 7 classification

REQUIRED AND RECOMMENDED MATERIALS:

Recommended Textbook:

Research Methods in Physical Activity et al. Human Kinetics

Require Learning Platform:

TopHat

Require Software:

Microsoft Office 2010 or later

Zotero (We will download and install in class and it's FREE)

COURSE FORMAT: This course will meet for three sessions a week. Usually two session will be lecture and the third session will either be an assessment or a group work activity.

COURSE LEARNING OBJECTIVES:

1. Identify the steps involved in scientific method
2. Identify issues related with methodology and discuss guidelines to enhance scientific rigor and reproducibility
3. Describe methods and discuss issues related to research ethics and responsible conduct of human and animal research
4. Outline the processes related to manuscript writing/submission/review/publication, authorship and journal impact factors
5. Conduct a literature search and manage references
6. Critique and present primary research articles
7. Formulate a research question/hypothesis and design a research study to address the question
8. Choose appropriate statistical tools to analyze data
9. Visually and verbally represent data and describe experimental design and results

CLASS LEARNING ENVIRONMENT

It is important to the learning environment that you feel welcome and safe in this class; and that you are comfortable participating in class discussions and communicating with me on any issues related to the class. If your preferred name is not the name listed on the official UF roll, please let me know as soon as possible by e-mail or otherwise. I would like to acknowledge your preferred name, and pronouns that reflect your identity. Please let me know how you would like to be addressed in class, if your name and pronouns are not reflected by your UF-rostered name. I welcome you to the class and look forward to a rewarding learning adventure together.

You may also change your "Display Name" in Canvas. Canvas uses the "Display Name" as set in myUFL. The Display Name is what you want people to see in the UF Directory, such as "Ally" instead of "Allison." To update your display name, go to one.ufl.edu, click

on the dropdown at the top right, and select "Directory Profile." Click "Edit" on the right of the name panel, uncheck "Use my legal name" under "Display Name," update how you wish your name to be displayed, and click "Submit" at the bottom. This change may take up to 24 hours to appear in Canvas. This does not change your legal name for official UF records. <https://elearning.ufl.edu/student-help-faqs/>

COURSE AND UNIVERSITY POLICIES:

ATTENDANCE POLICY: Attendance is expected for every session to obtain important content that you will be assessed on. Additionally you will receive credit via TopHat for attending and answering questions that will count towards your attendance and participation grade. You will need a 90% attendance/participation score to receive the full 50 pts for this grade category. TopHat Attendance: Attendance will be taken via TopHat exactly when class begins. If you are late to class there will be no make up for miss the attendance. There may also be participation questions throughout the lecture that will count towards your attendance/participation grade. Attendance/participation points cannot be made up for either excused or unexcused absences (barring long term health related absences), but the 90% threshold is there as a buffer for excused absences.

Red Days: Days on the syllabus schedule bolded in Red are days for which attendance is will allow you to get full marks on an assignment or assessment. Excused absences will not affect your grade for these days, but the assessment or assignment must be made up. Not attending class on these days will cause loss of points or a zero on the assignment/assessment listed for that day.

Excused and unexcused absences:

Excused Absence: An excused absence is missing class or an assessment for an approved reason (see list below) with appropriate documentation. For an absence to be excused documentation of the excuse must be provided and the instructor must be notified at least 2 weeks in advance for all planned excused absences (e.g. interview, wedding) although extenuating circumstances will be considered (e.g. funeral, illness). In the case of illness (or other more emergent situations) notice must be given prior to the absence.

Excusable Absences: In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, and professional conferences), military obligation, severe weather conditions, religious holidays, and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved.

Unexcused Absences: An unexcused absence is missing class or an assessment for a non-approved reason or because of late notification of an excusable absence.

Reasons that will not be excused: general wedding attendance (not in the wedding party), family vacations, traffic or otherwise poor planning, multiple assessments in one day.

*Notification (documentation as evidence may be provided after but you have to let me know that you will be missing BEFORE the absence) of an excused absence MUST be given to the instructor before the absence or assessment occurs *even in the case of illness*.

*The application of these guidelines is up to the instructor's discretion especially for specific cases which may involve ambiguity.

PERSONAL CONDUCT POLICY: Students are expected to exhibit behaviors that reflect highly upon themselves and our University. UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult the instructor or TA in this class.

EXAM MAKE-UP POLICY: Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

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/>.

GETTING HELP:

Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 352-392-1575
- Sexual Assault Recovery Services (SARS) - Student Health Care Center, 392-1161
- University Police Department, 392-1111 (or 9-1-1 for emergencies)
<http://www.police.ufl.edu/>

Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>

GRADING:

Table 1: Point Breakdown of Course Components

Evaluation Components (number of each)	Points Per Component	Approximate % of Total Grade
Lecture Exams (2)	100 pts each = 200 pts	$200/700 = 28.6\%$
Quizzes (5/6)	40 pts each = 200 pts	$200/700 = 28.6\%$
Assignments (8)	Var pts each = 150 pts	$150/700 = 21.4\%$
Course Project and Presentation	100 pts	$100/700 = 14.3\%$
Participation/Attendance	50 pts	$50/700 = 7.1\%$

Lecture Exams – Each exam (Midterm and Final) will consist of ~40 questions. Questions will be multiple choice and true/false. Students are not permitted access to any kind of materials or notes during these exams. Exam questions are generated by the course instructor and the majority of focus should be given to the lecture notes when studying. Students will take exams in the same room where weekly meetings are held and will be allowed 50 minutes to complete the exam.

Assignments – There will be approximately 8 assignments throughout the semester which will include check point assignments for completing progress on your course project.

Lecture Quizzes – There will be 6 ~bi-weekly 30-40 minute multiple choice quizzes that will test conceptual knowledge and quantitative skills covered over the previous two weeks. The lowest quiz grade will be dropped.

Group Work Days – On days where time is provided for group work and assignments attendance is mandatory or you are liable to lose points on your final project and the assignment.

Extra Credit – No extra credit is guaranteed for this course

GRADING SCALE: Assessment scores will be posted directly to Canvas. Exam and quizzes will be graded within approximately 1 week from the latest proctored assessment given (i.e. if there are makeup exams/quizzes that occur after the scheduled date). Other assignments may take longer in order to evaluate and provide more comments and feedback.

Once a grade is posted students have two weeks to come to office hours to dispute an error in grading.

Exams and quizzes may be review during office hours throughout the semester.

More detailed information regarding current UF grading policies can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Any requests for additional extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (i.e., asking for preferential treatment) and will be handled accordingly.

Letter Grade	Points Needed to Earn Each Letter Grade	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A	630-700	90.00-100%	4.0
B+	609-629.99	87.00-89.99%	3.33

Grade	Score Range	Percentage Range	Quality Points
B	581-608.99	83.00-86.99%	3.0
B-	560-580.99	80.00-82.99%	2.67
C+	539-559.99	77.00-79.99%	2.33
C	511-538.99	73.00-76.99%	2.0
C-	490-510.99	70.00-72.99%	1.67
D+	469-489.99	67.00-69.99%	1.33
D	420-468.99	60.00-66.99%	1.0
E	≤ 419.99	0-59.99%	0

WEEKLY COURSE SCHEDULE:

* – Bring laptop to Class

Red Text – Attendance will affect grade on an assignment or assessment directly

Week	Dates	Module	Lecture Topic	Assignment Due
1	Jan 6 - Jan10	1 – Getting Started 2 – Introduction to Research Methods	2 Introduction to Research Methods 2 Theories and Hypotheses	
2	Jan 13 - Jan17	3 – Reviewing the Literature	Literature Reviews *Group Work: Assignment 1 (Friday)	Student Profile and Group (Wednesday)
3	Jan 20 - Jan 24	3 – Reviewing the Literature	Reading Articles Writing an Introduction Quiz 1 (Friday)	Assignment 1 (Friday)
4	Jan 27 - Jan 31	4 – General Research Design	Experimental Design 1 *Group Work: Individual Article Reviews (Friday)	Article Review 1 (Friday)
5	Feb 3 - Feb 7	5 – Research Ethics	Research Ethics Quiz 2 (Friday)	
6	Feb 10 – Feb 14	5 – Research Ethics	Research Ethics *Group Work: Individual Article Reviews (Friday)	Article Review 2 (Friday)
7	Feb 17 – Feb 21	6 – Experimental Design	Experimental Design 2 Group Work: Intro Peer Review (Wednesday) Quiz 3 (Friday)	Intro Peer Review (Wed)

8	Feb 24 - Feb 28	6 – Experimental Design	Experimental Design 2 Review Exam 1	Introduction Draft (Mon)
	Mar 2 – Mar 6		SPRING BREAK	
9	Mar 9 – Mar 13	6 – Experimental Design 7 – Statistics	Experimental Design 3 *Group Work: Methods (Wednesday) Descriptive Statistics	
10	Mar 16 – Mar 20	7 – Statistics	Inferential Statistics Part 1 Quiz 4 (Friday)	
11	Mar 23 – Mar 27	7 – Statistics	Working With Excel *Group Work: T-test (Wed) Inferential Statistic Part 2	Methods Draft (Mon)
12	Mar 30 - Apr 3	7 – Statistics	Inferential Statistics Part 2-3 Quiz 5 (Friday)	
13	Apr 6 - Apr 10	8 – Scientific Communication	Presenting Results *Group Work: Statistical Plan and Results (Wednesday) Interviews (Friday)	T-test (Mon)
14	Apr 13 - Apr 17	8 – Scientific Communication	Discussion and Conclusions Quiz 6 (Wednesday) Project Presentations (Friday)	
15	Apr 20 - Apr 24	8 – Communicating Scientific Results	Project Presentations Review	Final Submission (Sun April 26)
Final Exam (Not Comprehensive) Final Exam: 4/29/2020 @ 7:30 AM - 9:30 AM				

This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However the professor reserves the right to modify, supplement and make changes as the course needs arise. This includes exam dates and lecture topics that may change depending on class progress.