

## UNDERGRADUATE RESEARCH METHODS

APK4050 ~ 3 CREDITS ~ SPRING 2021

**INSTRUCTOR:**

**Matt Terza Ph.D.**

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Preferred Method of Contact: email



**OFFICE HOURS:**

M 3:00-3:50, R 11:45-12:50 (Virtual via Zoom)  
or by appointment if necessary

**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:**

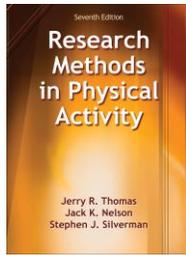
Provides an understanding of basic research methods and techniques used in applied physiology and kinesiology. Students will demonstrate their knowledge of the course materials by analyzing, interpreting and summarizing research writing in professional journals and by planning a research study. Credits: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

**PREREQUISITE KNOWLEDGE AND SKILLS:**

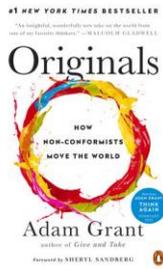
APK major with 3, 4, 6 or 7 classification

**REQUIRED AND RECOMMENDED MATERIALS:**

**Required Books:**



Thomas, Jerry, Nelson, Jack, and Silverman, Stephen. *Research Methods in Physical Activity* Human Kinetics, 7<sup>th</sup> Ed. (2015) ISBN 978-4504-7044-5



Grant, Adam, *Originals: How Non-Conformists Move the World* Penguin Books, (2016) ISBN: 9780143128854 (pbk)

### Required Software:

Microsoft Office 2010 or later

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

**COURSE FORMAT:** This course will meet 3 times a week live. Traditional classroom section will meet face to face in FLG280. This session will be attended live by the online section via Zoom meeting which may be accessed through the Canvas course shell.

### 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. Please let me know your name is 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](https://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:**

#### **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/>.

**Covid-Related for Face to Face:**

- We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.
- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies](#).

**Privacy:** For online course with recorded materials a statement informing students of privacy related issues such as:

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

## GETTING HELP:

### Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact [umatter@ufl.edu](mailto: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](mailto: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 (3)	100 pts each = 200 pts	200/1000 = 20%
Final Exam	100 pts each = 100 pts	100/1000 = 10%
Quizzes (10)	30 pts each = 300 pts	300/1000 = 30%
Assignments (8)	Var pts each = 270 pts	300/1000 = 30%
Oral Presentation	30 pts	30/1000 = 3%
Participation/Attendance	100 pts	100/1000 = 10%
<b>Total</b>	<b>1000 pts</b>	<b>100%</b>

### ***Assessment Proctoring Via Honorlock***

Honorlock will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software or schedule an appointment in advance.

Honorlock is available 24/7 and all that is needed is a computer, a working webcam, and a stable Internet connection.

**Exams For Online Sections AND Face to Face Sections:** Lecture exams will be timed Honorlock proctored Canvas quizzes scheduled during your registered section time.

To get started, you will need Google Chrome and to download the Honorlock Chrome Extension. You can download the extension at [www.honorlock.com/extension/install](http://www.honorlock.com/extension/install) When you are ready to test, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device. Good luck! Honorlock support is available 24/7/365. If you encounter any issues, you may contact them by live chat, phone (855-828-4004), and/or email ([support@honorlock.com](mailto:support@honorlock.com)).

**Lecture Exams (2)** – There are 2 non-cumulative lecture exams during the semester which will be multiple choice, numeric entry (stats), and short answer exams that assess objectives covered in the lecture content of the course.

**Final Exam** – The final exam is a cumulative multiple choice, numeric entry (stats), and short answer exam cover lecture content objective from across the semester.

**Assignments** – There will be approximately 8 assignments throughout the semester related to the course project of designing and writing up an experimental research study in the area of human health and performance.

**Quizzes** – There will be 10 canvas quizzes throughout the semester. These quizzes will test knowledge AND application of the associated lecture content and the assigned reading. These quizzes are individual quizzes yet open book/notes. Typically, you will have 1 attempt and 1 hour to complete the quiz (some exceptions to these constraints towards greater leniency may apply so please read the quiz cover page before beginning an assessment.)

**Oral Presentation** – In the last week of the semester each student will be asked to give a 3-5 minute oral presentation on either their course project.

**Attendance and Participation** – Attendance and participation are expected and comprise an overt portion of your grade. Attendance will be taken. Unless the absence is excused failure to attend class will result in a 5 pt deduction from your attendance and participation score (100 pts possible). Discussion participation is expected but will not be tracked explicitly unless necessitated by low participation. If you do not

participate consistently volitionally you are likely to be called on when discussion questions are posed and failure to respond may result in attendance/participation point deductions. Discussion questions are posted weekly on the module page for you to consider before attending lecture.

**Extra Credit** – No extra credit is given in 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.

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	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A	90.00-100%	4.0
B+	87.00-89.99%	3.33
B	83.00-86.99%	3.0
B-	80.00-82.99%	2.67
C+	77.00-79.99%	2.33
C	73.00-76.99%	2.0
C-	70.00-72.99%	1.67
D+	67.00-69.99%	1.33
D	60.00-66.99%	1.0
E	0-59.99%	0

## WEEKLY COURSE SCHEDULE:

This syllabus and schedule are 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.

Week	Dates	Module	Lecture Topic
1	Jan 11 - Jan 15	S+1	Course Overview and Personal Introduction Introduction to Research Methods Discussion 1: Science and Philosophy
2	Jan 18 - Jan 22	2	Monday Jan 18 Holiday Search Engines and Reference Software Discussion 2: Writing and Introductions
3	Jan 25 - Jan 29	2	Reviewing the Literature Publication and the Peer Review Process Discussion 3: Originals - Creative Destruction
4	Feb 1 - Feb 5	3	General Research Design Topics Discussion Discussion 4: Article 1 Review and Critique
5	Feb 8 - Feb 12	3	General Research Design Sampling Discussion 5: Originals - Blind Inventor and one-eyed inventors
6	Feb 15 - Feb 19	4	Ethics - Protection of Human and Animal Subjects Ethics - Scientific Integrity and collegiality Discussion 6: Originals - Out on a limb
7	Feb 22 - Feb 26	4	Ethics - Institutional Integrity and Social Responsibility Exam 1 Ethics - Flex Day Review
8	Mar 1 - Mar 5	5	Exam 1 Experimental Design 2 Peer Review
9	Mar 8 - Mar 12	5	Experimental Design 3 TBD Discussion 7: Originals - Fools Rush In
10	Mar 15 - Mar 19	5	Experimental Design TBD Discussion 8: Originals Rethinking Group Think
11	Mar 22 - Mar 26	6	Statistics 1 Spring Recharge Day - No Class Excel Demo and t-test assignment
12	Mar 29 - Apr 2	6	Statistics 2 Review Exam 2 (Session 2)

13	Apr 5 - Apr 9	6	<b>Statistics 2</b> <b>Statistics 3</b> <b>Discussion 9: Article Review 3</b>
14	Apr 12 - Apr 16	7	<b>Scientific Communication</b> <b>Excel Demo Graph Generation</b> <b>Discussion 10: Originals - Rocking the boat and keeping it steady</b>
15	Apr 19 - Apr 23	7	<b>Student Presentations</b> <b>Student Presentations</b>
16	Apr 13 - Apr 17		<b>Final Exam APK4050 – Section 22929 &amp; 26101 - 4/28/2021 @ 3:00 PM - 5:00 PM</b>