Research Methodology & Statistics in Counseling Psychology

PSY 01572 Section 1 (Spring 2020; 3 hrs)

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Office: My Greenhouse

**Office Hours:** By appointment

**Class Information**

Due to a world-wide pandemic, the format of the course has changed. This updated syllabus reflects that fact. Because this course was a flipped classroom already, few massive changes are required. You are still expected to watch videos online, take the online quizzes and tests, and read the designated chapters. The class exercises and benchmarks, however, will take place virtually through Zoom.

**Required Course Materials**

Cuttler, C., Jhangiani, R. S., & Leighton, D. C. *Research Methods in Psychology - 4th American Edition* (10th Ed.)*.* Kwantlen Polytechnic University. Available at <https://open.umn.edu/opentextbooks/textbooks/research-methods-in-psychology-3rd-american-edition>

**Supplemental Reading**

These mandatory readings will be supplied on blackboard.

Aronson, J. K., et al. (2019). Key concepts for making informed choices. Nature. doi: 10.1038/d41586-019-02407-9

Fife, D. F., & Rodgers, J. L. (2019). Exonerating EDA: Resolving the Replication Crisis Using the EDA/CDA Gradations. Unpublished Manuscript.

Fife, D.F., Sullivan, N., Lund, M., & Young, C. (2019). Grassroots Research: A Not-So-Quiet Methodological Revolution. Unpublished Manuscript.

Shadish, Cook, & Campbell (2002). *Experimental and Quasi-Experimental Designs, Chapters 2-3.* Houghton Mifflin.

**Objectives of the Course**

Basically, this course is to teach you to be a research Jedi. How do you design experiments? Bam! That’s what I’m going to teach. How do you evaluate evidence? Bam! How do you design non-experimental research? Bazinga. By the end of this course, you’ll be able to know the answers to life’s deepest mysteries, including

* What should be considered in designing and conducting psychological research?
* In what ways do current research paradigms suck?
* What procedures, methods, and tools are used to collect and analyze psychological data?
* How can I find peace and happiness in life? (Hint: learn statistics and do research).
* How do designs and methods influence the inferences and conclusions that can be made?

**Course Expectations**

* **Attendance and preparedness** is necessary. Really though. This ain’t your mother’s research methods course. (Does your mother actually teach research methods? If so, you’re probably unusually prepared for this). You really have to prepare, otherwise you’re going to get left behind. You MUST watch the videos and read the material in advance. And don’t be late. If you are late more than three times and absent more than twice, I have the freedom to dock you a letter grade.
* Professionalism: All students must act in a professional manner throughout the term, no matter how immature I act. I have my job, people. You’re not there yet ;) In all seriousness, I do want you to have a good time and be relaxed in the classroom. But, that doesn’t mean you’re not required to have academic integrity, strong interpersonal communication, pristine attendance, and be conscientious.
* Access to a computer with an Internet connection. You will be expected to use **Blackboard and Microsoft Word,** and probably Facebook, where you will share with your friends my awesome videos so I can be YouTube famous and quit my day job. Ok, not really. I have too much fun in my day job. But a little extra cash would be nice**.** Due to Covid-19, we’ll also utilize Zoom for virtual class.
* Read the material and watch the videos. A like, subscribe, and comment would be nice too. Low key.

**Course Instruction**

I’m a bit non-traditional. I hate lecturing to a sleepy (or sleeping) crowd. I’m quite antsy, by nature, and hated sitting and listening as a student. I also despise lecturing. So I got smart, see. I decided to *record* my “lectures” in advance. Then I don’t have to listen to myself talk over and over. That’s quite convenient, you see, for that means Covid-19 can’t stop us!

So, I don’t have to listen to myself drone on over and over. But you can! That’s the advantage of videos: you can listen as many times as you need to get the material. Then, you will take a quiz that covers that week’s material. Next, when we get to virtual class, we have discussions about the material, practice different research scenarios, review learning objectives, etc. I’d then recommend you watch the videos *again*. Why? Because it inflates my view counts, of course. But it also helps you solidify the material. And, arguably, that’s more important.

I guess.

So, in short, watch the videos and read the material in advance. Take the quizzes. Come to virtual class and participate. Then watch the videos again. Then, in several weeks or months or years, you’ll be able to tell people you personally knew the YouTuber Dustin the Fife.

**Assessments**

As part of your evaluation, you are required to have assessments, or benchmarks. For this semester, these benchmarks are…

* Elevator Pitch
* Research hypothesis/question
* Intended methodology
* Statistical analysis plan
* Everything together

**Course Assignments/Assessments**

There are five means by which I will assess your performance in the class:

**1. Weekly Quizzes (12×5 points).** Each week, you will be asked to complete a quiz on blackboard that tests your comprehension of that week’s reading. These are by the start of class. You are free to work together on these quizzes, provided you also read and understand that week’s reading.

**2. Mid-term (40 points).** There will be one midterm during the semester. This will take place on the week of **March 11th**. It will be a combination of multiple choice, short answer, fill in the blank, and essay.

**3. Final (60 points).** The final is the same format as the mid-term and the date and time will be determined by the university part-way through the semester.

**4. Discussion Boards (12×5 point).** Each week you are required to post one question to the discussion board. Even if you don’t have a question, make one up! Sometimes conjuring questions helps deepen understanding. You are also required to reply to at least one

**5. Benchmarks (5×15 point).** During the semester, we will have five “benchmarks”: small assignments that contribute to your final paper. These include: (1) writing an elevator pitch, (2) a research hypothesis or question, (3) intended methodology, (4) statistical analysis plan, and (5) everything together.

**Grading**

Each assignment is worth the points mentioned above, for a total of 100 points. The grade breakdown is as follows:

|  |  |
| --- | --- |
| **Grade** | |
| A | (93%-100%) |
| A- | (90%-92.9%) |
| B+ | (87%-89.9%) |
| B | (83%-86.9%) |
| B- | (80%-82.9%) |
| C+ | (77%-79.9%) |
| C | (73%-76.99%) |
| C- | (70%-72.99%) |
| D+ | (67%-69.99%) |
| D | (63%-66.99%) |
| D- | (60%-62.99%) |
| F | (0%-59.99%) |

**Canvas**

Canvas will be heavily used in this course! The site will allow you to check your grades, access class materials, and take the quizzes assignments. All assignments must be submitted through Canvas. It is the student’s responsibility to ensure that their Word document has been successfully submitted. You should be able to see your assignment in the preview screen. If you do not successfully submit your assignment before the deadline it will be marked late and points will be deducted.

**Attendance and Class Participation**

This course is a virtual course. However, virtual class attendance is expected (by your professor AND fellow teammates) and **necessary** to do well in the class (e.g. B+ or higher). It is **EXTREMELY IMPORTANT** that you attend all virtual class meetings and complete all readings and assignments on time. We will move very quickly through the course material. If you fall behind, it will be very difficult for you to catch up. Yes, missing one class typically sets students behind. If you work diligently in this course, attending EVERY class, making sure you understand each chapter and concept at the time we are covering it in class and completing all assignments on time, you will probably do well in the course. If you miss class, procrastinate, and avoid seeking help until you have no idea what is going on, you will **not** do well in the course. If you miss virtual class, you are responsible for all material covered in class and any announcements or assignments given in class. Also, please keep in mind that even excused absences can potentially negatively affect your grade since you’re still missing valuable course material.

**Missing or Late Assignment Policy**

Late assignments will be docked at a rate of 15% per 24 hour period from when the assignment was due. Beyond six days, missing assignments cannot be made up.

**Academic Integrity**

Each student is required to be familiar with the academic integrity policy. Below is an excerpt from Rowan’s academic integrity policy:

“The integrity of academic programs is imperative to Rowan University’s mission. While acknowledging the social and collaborative nature of learning, the University expects that grades awarded to students will reflect individual efforts and achievements. All members of the Rowan community are responsible for understanding what constitutes academic dishonesty; upholding academic integrity standards and encouraging others to do likewise; and knowing the procedures, rights and obligations involved in the Academic Integrity Policy. Academic dishonesty, in any form, will not be tolerated. Students who commit an act of academic dishonesty are subject to disciplinary sanctions up to and including expulsion from the university.”

This includes incidence of the following: cheating, plagiarism, fabrication, and academic misconduct. For more information, please see the University’s full academic integrity policy: Academic Integrity Policy

All of the following are considered plagiarism:

•Failing to cite the source of all facts in a written assignment, even if you put the information in your own words.

•Using language that is too similar to your sources even if you cite them appropriately (including direct quotes without the use of quotation marks).

•Using the same sentence structure as your sources (e.g. substituting words with synonyms), even if you cite it appropriately.

Any student that violates the academic integrity policy in this course will have a minimum penalty of receiving a 0 on the assignment, no matter how many points it is worth. Additionally, I will submit an official Report of an Academic Integrity Violation to the Provost’s office.

**Incomplete Policy**

Students who miss coursework at the end of the semester (e.g. final project, final exam) due to **extreme circumstances** may be eligible to receive an incomplete (IN).Students must request an incomplete for missing work ASAP, receive permission from me, and complete the official incomplete form. Work must be completed by the end of the following semester.

**Accommodations for Students with Disabilities**

Your academic success is important.  If you have a documented disability that may have an impact upon your work in this class, please contact the professor immediately.  Students must provide documentation of their disability to the Academic Success Center in order to receive official University services and accommodations. The Academic Success Center can be reached at 856-256-4234.  The Center is located on the 3rd floor of Savitz Hall.  The staff is available to answer questions regarding accommodations or assist you in your pursuit of accommodations.

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| **Week** | **Date** | **Topic** | **Benchmarks** | **Reading** |
| Week 1 | 25-Jan | Finding & Reading Articles/Developing Hypotheses/APA Format |  | [Purdue OWL's APA](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/in_text_citations_the_basics.html) |
| Week 2 | 1-Feb | The science of psychology |  | Chapter 1 |
| Week 3 | 8-Feb | Overview of the research process | Elevator Pitch | Chapter 2 |
| Week 4 | 15-Feb | Ethics |  | Chapter 3 |
| Week 5 | 22-Feb | Validity | Research Question/Hypothesis | [Experiment Basics](https://opentextbc.ca/researchmethods/chapter/experiment-basics/) |
| Week 6 | 1-Mar | Psychological Measurement |  | Chapter 4 |
| Week 7 | 8-Mar | MIDTERM |  |  |
| Week 8 | 15-Mar | Experimental Methods |  | Chapter 5 |
| Week 9 | 22-Mar | t-tests/ANOVAs |  |  |
| Week 10 | 29-Mar | Nonexperimental Research |  | Chapter 6 |
| Week 11 | 5-Apr | Survey Research |  | Chapter 7 |
| Week 12 | 12-Apr | Correlation/Regression |  |  |
| Week 13 | 19-Apr | Quasi-experimental Designs | Intended Methodology | Chapter 8 |
| Week 14 | 26-Apr | Factorial Designs 1 | Statistical Analysis Plan | Chapter 9 |

\*\*Tentative Course Schedule--any changes will be announced\*\*

Videos accompanying the topics are posted at the following playlist:

<https://www.youtube.com/playlist?list=PL8F480DgtpW-9Av1YmB-b2MksyrwOZ5sy>