

# RESEARCH METHODS

Psy 3010-090      Fall 2019

## WHEN AND WHERE

### COURSE WEBSITE:

<https://utah.instructure.com/courses/575232>

This is a fully online course. There is no requirement to meet in person nor are you required to log in to the website at any particular time. However, to be successful in this course, you will need to participate weekly at a minimum and at times more than once per week.

You will be asked to work in groups of 4 students for the second 2/3 of the semester. Your group is not required to meet in person nor to work synchronously, but some groups choose to do so.

## COURSE MATERIALS

Our course is enrolled in the Campus Store's Inclusive Access program

(<https://www.campusstore.utah.edu/inclusiveaccess/>).

This means that you will have automatic access to course materials in an electronic form through Canvas at a reduced cost, and the charge for course materials will automatically be added to your tuition bill as a course fee of \$75.12. You do not need to do anything for this to happen.

- *Discovering the Scientist Within*, 2<sup>nd</sup> edition by Lewandowski, Ciarocco, and Strohmets LaunchPad version (ISBN: 9781319134693)

If you prefer to purchase the course materials yourself, you can opt out of the Inclusive Access program (<https://portal.verba.io/utah/login>) up until the add/drop day. You will pay more for the course materials if you purchase them on your own.

Automatic access is provided to all students for the first couple of weeks into the semester. If you opt out of the Inclusive Access program, you will need to purchase your own materials before automatic access to everyone is discontinued.

Within each weekly guide, you will find a link to the e-text so that you can read the assigned chapter for that week. You will also find links to any LaunchPad activities to be completed that week.

## PREREQUISITE

Psy 3000 Statistical Methods in Psychology (or an equivalent course) is a prerequisite for this course. If your stats skills are a little rusty, be sure to check out the Statistics Resources page in our course to get caught up to speed. You WILL need to perform statistical calculations in this course, and you will need to pass a statistics quiz to unlock the course material.

## INSTRUCTOR

Ali Froehlich, PhD

[fro@psych.utah.edu](mailto:fro@psych.utah.edu)

**OFFICE HOURS:** My office is located within the Faculty Center on the first floor of the Marriott Library. If you would like to meet with me, please send me an email to schedule a time. I love having the opportunity to meet my students in person.

## TA

Gabriela Perez Tamayo

[gabimpt@yahoo.com](mailto:gabimpt@yahoo.com)

If you would like to meet with Gabriela, please send her a message to arrange a time and place to meet.

## TIME COMMITMENT

Please note that this is a 4 credit course. According to U of U policy 6-100-III-B (<http://regulations.utah.edu/academics/6-100.php>), you should expect to allocate about 12 hours of your time per week on this course.

## COURSE OVERVIEW

This course is two parts packed into one. In order to truly understand the research process, you will need not only to learn about research methods concepts (such as different types of variables, the validity and reliability of a method, and various types of study designs, for example) but also to try your hand at designing your own research studies and writing up research reports. For that reason, throughout the course you will be assigned readings and activities on research methods concepts while also practicing what it is like to design and write up research studies.

Not planning to be a researcher when you grow up? No problem! While this course will give you a foundation for entering the research world, you will also learn how to be an informed consumer of research in your daily life, from looking up the latest on whatever ails you or the current nutritional fad to evaluating the trustworthiness of a website.

## COURSE OUTCOMES

By the end of this course, you will be able to...

1. interpret psychological phenomena through the lens of behavioral sciences research methodology.
2. describe the research process and the principle activities, skills, and ethics associated with the research process.
3. describe and compare the major study designs used in the behavioral sciences.
4. propose a research study and justify the rationale as well as the methodological decisions, including sampling and measurement.
5. design, conduct, and write up for publication your own research.
6. read, interpret, and evaluate the findings of other researchers.
7. effectively work with others in a group by applying experiences with difficulties that can arise with group work and discovered ways to work around those roadblocks.
8. critically evaluate the work of your peers.

This course also fulfills, in part, the learning outcomes set for the bachelor's degree in Psychology (<https://psych.utah.edu/undergraduate/>).

Further, it fulfills

- the University's Bachelor's Degree BS Quantitative Intensive learning outcomes (<http://ugs.utah.edu/general-education/requirements/qi.php>) and
- Upper Division Communication / Writing requirements (<http://ugs.utah.edu/general-education/requirements/cw.php>).

## COURSE ORGANIZATION

All of the information you will need for each week will be located within the Weekly Guides, which you can access from the Home page. Each week, be sure to locate and open that week's guide to get a summary of the week's events and a detailed list of things to do.

### LEARNING CONTENT & APPLICATION ACTIVITIES:

As mentioned above, this course is two parts rolled into one. One part involves going through the content of the course and completing activities that get you to apply and practice what you are learning (i.e., LaunchPad activities, practice and graded quizzes, and class discussions). This will be labeled as "Learning Content" and "Application Activities" within each weekly guide. Some weeks you will even see an "Extra Credit" section. Please note that each week you must complete all of that week's Application Activities before the Application Activities for the next week will unlock.

**RESEARCH PROJECT WORK:** The second part of this course involves designing research studies and writing up research reports. You will find information on the steps to take for this part of the course within the "Research Project Work" section of each weekly guide. I have also created a Research Projects Resource page, which combines all assignments, due dates, and instruction resources in one place. You can access this page by clicking on the Research Projects Resources button on the home page.

## ANNOUNCEMENTS & DISCUSSIONS

I will use the Announcements board to communicate unexpected information as it comes up. Please be sure to set up your Canvas notifications to be notified when a new Announcement is made. You will be held responsible for any information posted there.

The Discussions area is a place where we can interact as a class and where you all as students can share your ideas with each other. We will have regular class discussions that will guide you in applying (and for you to see how others apply) certain topics we are learning about. The Discussions area is a wonderful way for you to be connected with the rest of the class, which enhances learning.

## GROUP WORK

A few weeks into the semester, you will begin to work in a group of 4 students on assignments designed to help you plan out and conduct a study for your Final Report. Research in the real world is always completed in groups of peers, and so the group work aspect of this class is designed to give you that experience. I have also found that, particularly with an online class, students really benefit from working with each other to share ideas and collaborate efforts. Despite this, group work can sometimes be challenging- particularly when your project depends on cooperation with others. I understand this, and while the challenge of learning to work with others will help prepare you for that real world research experience, please know that I am here to help should any issues arise. Also note that assignments are set up and graded in a way that you can earn the score you want (regardless of the performance of your group members).

## GRADING

Links for assignments due each week will be located within the Guide for that week. Due dates, unless otherwise indicated, will fall on Sundays at 11:59pm. Do note, however, that for Project Group assignments, you must contribute to your group's assignment by the Wednesday before the assignment's deadline. Each point is equivalent to 1% of your final grade.

### QUIZZES (35 points total)

There will be seven multiple-choice quizzes, about one every other week.

Quizzes will mostly cover the material from the previous two weeks but will also include at least some questions from earlier weeks. Quizzes are open book and open material, but they are timed. Once you begin a quiz, you will be locked out of it at the end of that time, so do be sure to prepare for the quizzes *before* beginning them. You will not have time to look up the material during the quiz if you have not prepared for it.

Good news is that you can retake a quiz as many times as you like. Do note that each time the questions will change. The highest score will be applied to your final grade.

You should complete a quiz in the week it is assigned (by its due date) in order to stay on track in the course and not fall behind. However, most quizzes will remain available for up to two weeks later so that you can retake

them, and there will be no penalty for completing a quiz late. It is NOT recommended you wait until the "available until" date to take a quiz for the first time. You will not be allowed to take a quiz after its "available until" date.

35 points: 7 Quizzes (5 points each)

### DISCUSSION PARTICIPATION (6 points total)

Weeks that we do not have a quiz, we will have a class discussion. You are expected to contribute thoughtfully. Everyone will start the semester with 6 points for discussion participation. As we move through the semester, if participation in a discussion is of poor quality, you will lose the Discussion Participation point for that discussion.

### RESEARCH PROJECTS ASSIGNMENTS

(60 points total)

#### MINI REPORT (15 points)

The Mini Report will be a mini version of a full research report. This will be completed at the beginning of the semester to give you an opportunity to get your feet wet and get a sense of what is involved in writing up a report of a research study. It will also give me a chance to give you some initial feedback before you start working on the much larger Final Report. Before writing your Mini Report, you will be asked to participate in an online experiment as though you are a participant in the study you will write your report on. You will also be given some hypothetical data to analyze for your report.

#### PROJECT GROUP ASSIGNMENTS & FINAL REPORT (44 points total)

For the Final Report, you will work in groups of 4 to design a study that your group will eventually write up as a report. Before writing the report, your group will complete and submit a handful of assignments (Project Group assignments) aimed at guiding your group through the process of narrowing down a research topic to a testable hypothesis and then designing a research study to base your report on. You will even get to collect and analyze some data to see if your hypothesis was supported!

The first assignment is a simple introduction discussion. Following this initial discussion, four assignments will be completed together as a group. Each group should submit only one copy of each completed assignment (you will receive further instructions for how to go about doing this in the first assignment).

2 points: Project Group Introductions  
2 points: Group Formation assignment  
4 points: Research Topics assignment  
4 points: Hypothesis assignment  
5 points: Data Analysis assignment

After your group has completed these initial assignments, you will begin writing the Final Report. Each group member will write one section of the report (Introduction, Method, Results, or Discussion), and group members will be asked to peer review each other's sections. A complete Final Report will then be assembled and submitted by each individual for an individual grade.

3 points: Section Draft  
9 points: 3 Peer Reviews (3 points each)  
15 points: Final Report

## EXTRA CREDIT

You can earn extra credit towards your final grade in two ways. One is by participating in experiments run by the psychology department. This is a wonderful way to see what the research process is all about from the participant's point-of-view. You may earn 1 extra credit point for each hour of participation, *up to 3 points max*. Go to the Department of Psychology's Participant Pool website (<https://psych.utah.edu/research/>) for more information. All research participation must be completed by the last day of classes.

You may also receive additional points of extra credit by completing extra credit assignments that will be offered throughout the semester. I will post these assignments within the weekly guides as we cover certain topics. Extra credit assignments that are submitted after the due date can be turned in for up to half credit through the last day of classes.

Finally, we have multiple discussion boards dedicated to student questions, such as the Course Questions discussion board. If you are able to answer another student's question before I am able to get to it, and if your answer is of high quality, you will earn 1/2 point of extra credit for each question answered in this way.

**Please note:** You will be able to see when you receive extra credit for a given assignment. However, *extra credit will not be incorporated into the Total grade until the end of the semester*, when all other assignments have been graded. The reason is that funky things happen to the Total grade when extra credit is only partially completed. So, until I announce that extra credit has been added to the Total grade at the end of the

semester, just mentally add those extra credit points to your Total grade. Research participation will not show up in the grades until the end of the semester, but you can track your participation at the Department of Psychology's Participant Pool website (<https://psych.utah.edu/research/>).

## GRADING SCALE

A 100-93| A- 92-90| B+ 89-87| B 86-83|  
B- 82-80| C+ 79-77| C 76-73| C- 72-70|  
D+ 69-67| D 66-63| D- 62-60| E below 60

## STUDENTS WITH DISABILITIES

I am always learning how to make online course content and materials accessible to everyone. If you find it difficult to access this course or any of its content, please let me know so that I can make improvements for everyone.

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability & Access (<http://disability.utah.edu/>), 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

## SAFETY STATEMENT

The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit [safeu.utah.edu](http://safeu.utah.edu).

## OTHER STUDENT SUPPORT RESOURCES

- Center for Student Wellness: [wellness.utah.edu/](http://wellness.utah.edu/)
- Veterans Support Center: <https://veteranscenter.utah.edu/>
- LGBT Resource Center: <https://lgbt.utah.edu>

- University Writing Center:  
<https://writingcenter.utah.edu>
- English Language Institute:  
<https://continue.utah.edu/eli>
- Office of Equal Opportunity and Affirmative Action  
(sexual misconduct): <https://oeo.utah.edu>
- Utah Neurodiversity Workforce Program:  
<https://unwp.utah.edu/>

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact a Student Success Advocate for support (<https://asuu.utah.edu/displaced-students>).

Additional Campus Resources:  
<http://ctle.utah.edu/related/>

## COURSE CALENDAR & DUE DATES

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|--|---|
| <b>WEEK 1: AUG 19 – 25</b>                                 | <b>PSYCHOLOGY AS A SCIENCE: THINKING LIKE A RESEARCHER</b>                            |
| <i>Learning Content</i>                                    | Ch 1 Psychology as a Science: Thinking Like a Researcher                              |
| <i>Application Activities</i>                              | LaunchPad: A Scientific Look at Psychics<br>Class Discussion #1                       |
| <i>Extra Credit</i><br>due Sept 1                          | Introductions discussion  |
| <b>WEEK 2: AUG 26 – SEPT 1</b>                             | <b>THE RESEARCH PROCESS: IDEAS TO INNOVATIONS</b>                                     |
| <i>Learning Content</i>                                    | Ch 2 The Research Process: Ideas to Innovations                                       |
| <i>Application Activities</i>                              | LaunchPad: Determining Key Study Elements<br>Literature Review activity               |
| <b>WEEK 3: SEPT 2 – 8</b>                                  | <b>ETHICS</b>   |
| <i>Learning Content</i>                                    | Ch 3 Ethics; Ch 4, “APA-Style Papers” section pp. 108- 110                            |
| <i>Application Activities</i><br>due Sept 8                | LaunchPad: Being an Ethical Researcher<br>Quiz #1 (available until Sept 22)           |
| <i>Extra Credit</i><br>due Sept 15<br>due Sept 15          | Breaking Down a Journal Article activity<br>Basic Principles of the Belmont Report    |
| <b>WEEK 4: SEPT 9 – 15</b>                                 | <b>THE PSYCHOLOGIST’S TOOLBOX</b>   |
| <i>Learning Content</i>                                    | Ch 4 The Psychologist’s Toolbox   |
| <i>Application Activities</i>                              | LaunchPad: Is the Swagger-Meter 1.0 a Quality Measure?<br>Class Discussion #2         |
| <i>Research Project work</i><br>due Sept 15<br>due Sept 15 | Gender Perception Lab completed (ungraded)<br>Gender Perception Stats quiz (ungraded) |
| <b>WEEK 5: SEPT 16 – 22</b>                                | <b>QUALITATIVE RESEARCH</b>   |
| <i>Learning Content</i>                                    | Ch 5 Qualitative Research   |
| <i>Application Activities</i><br>due Sept 22               | LaunchPad: You’re Hired!<br>Quiz #2 (available until Oct 6)                           |
| <i>Research Project work</i><br>due Sept 22<br>due Sept 22 | Mini Report<br>Join a Project Group (ungraded)  |

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| <b>WEEK 6: SEPT 23 – 29</b>    | <b>OBSERVATIONAL RESEARCH</b>  |
| <i>Learning Content</i>        | Ch 6 Observational Research  |
| <i>Application Activities</i>  | LaunchPad: Is Public Affection a Public Affliction?<br>Class Discussion #3 |
| <i>Extra Credit</i>            |  |
| due Oct 6                      | Operational Definitions activity   |
| <i>Research Project work</i>   |  |
| due Sept 29                    | Project Group Introductions discussion                                     |
| <b>WEEK 7: SEPT 30 – OCT 6</b> | <b>SURVEY DESIGN AND SCALE CONSTRUCTION</b>                                |
| <i>Learning Content</i>        | Ch 7 Survey Design and Scale Construction                                  |
| <i>Application Activities</i>  | LaunchPad: Which Professor Should You Take?                                |
| due Oct 6                      | Quiz #3 (available until Oct 27)   |
| <i>Research Project work</i>   |  |
| due Oct 2                      | Group Formation Assignment Contributions discussion                        |
| due Oct 6                      | Group Formation assignment   |
| <b>WEEK 8: OCT 7 – 13</b>      | <b>FALL BREAK</b>  |
|                                |  |
| <b>WEEK 9: OCT 14 – 20</b>     | <b>TWO-GROUP DESIGN</b>  |
| <i>Learning Content</i>        | Ch 8 Two-Group Design  |
| <i>Application Activities</i>  | LaunchPad: To Multitask or Not to Multitask?<br>Class Discussion #4        |
| <i>Extra Credit</i>            |  |
| due Oct 27                     | Correlation activity   |
| <i>Research Project work</i>   |  |
| due Oct 16                     | Research Topics Assignment Contributions discussion                        |
| due Oct 20                     | Research Topics assignment   |
| <b>WEEK 10: OCT 21 – 27</b>    | <b>MULTIGROUP DESIGN</b>   |
| <i>Learning Content</i>        | Ch 9 Multigroup Design   |
| <i>Application Activities</i>  | LaunchPad: Dressing for Distress?  |
| due Oct 27                     | Quiz #4 (available until Nov 10)   |
| <i>Research Project work</i>   |  |
| due Oct 23                     | Hypothesis Assignment Contributions discussion                             |
| due Oct 27                     | Hypothesis assignment  |

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| <b>WEEK 11: OCT 28 – NOV 3 WITHIN-SUBJECTS DESIGN</b>    |  |
| <i>Learning Content</i>                                  | Ch 10 Within-Subjects Design   |
| <i>Application Activities</i>                            | LaunchPad: Left Out and Feeling Low<br>Class Discussion #5   |
| <b>WEEK 12: NOV 4 – 10 DIGGING DEEPER</b>                |  |
| <i>Learning Content</i>                                  | Digging Deeper Resource Page   |
| <i>Application Activities</i><br>due Nov 10              | LaunchPad: Giving Credit Where Credit Is Due<br>Quiz #5 (available until Nov 24)                             |
| <i>Research Project work</i><br>due Nov 10               | Study data collected (ungraded)  |
| <b>WEEK 13: NOV 11 – 17 FACTORIAL DESIGN</b>             |  |
| <i>Learning Content</i>                                  | Ch 11 Factorial Design   |
| <i>Application Activities</i>                            | LaunchPad: Can the News Influence Our Implicit Prejudice<br>Class Discussion #6                              |
| <i>Research Project work</i><br>due Nov 13<br>due Nov 17 | Data Analysis Assignment Contributions discussion<br>Data Analysis assignment                                |
| <b>WEEK 14: NOV 18 – 24 MIXED DESIGN</b>                 |  |
| <i>Learning Content</i>                                  | Ch 12 Mixed Design   |
| <i>Application Activities</i><br>due Nov 24              | LaunchPad: Do Speed Daters Become Pickier the Later It Gets?<br>Quiz #6 (available until Dec 5)              |
| <i>Research Project work</i><br>due Nov 24               | Section Draft submitted  |
| <b>WEEK 15: NOV 25 – DEC 1 SOURCES OF INFORMATION</b>    |  |
| <i>Learning Content</i>                                  | Sources of Information Resource page   |
| <i>Application Activities</i>                            | LaunchPad: The Structure of an APA-Style Paper<br>Activity: Sources of Information website quiz & discussion |
| <i>Research Project work</i><br>due Dec 1                | Peer Reviews   |

| WEEK 16: DEC 2 – 8            | WRAP UP                                    |
|-------------------------------|--|
| <i>Application Activities</i> |  |
| due Dec 8                     | Quiz #7                                    |
| <i>Extra Credit</i>           |  |
| due Dec 8                     | Research participation completed           |
| due Dec 8                     | End of Course Feedback Survey              |
| due Dec 8                     | Late extra credit assignments for ½ credit |
| <i>Research Project work</i>  |  |
| due Dec 8                     | Final Report                               |