| <u>Course Features</u>   |
|--|
| Course Requirements  |
| Course Grading Weights.  |
| Course Rules and Regs.   |
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| Course Reading   |
| Course Calendar  |
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| T.A.   |
| Distributed Competencies   |
| Pic of Caleb   |
|  |
| Pic of Josh  |
| <u>MadelynHope</u>   |
| Pic of Samuel  |
| Jen and boys   |
| <u>JustinSavannah</u>  |
| Curly  |
| Dr. Ben Stephens Psych 3100-Advanced Experimental Psychology Fall 2020 |

# Course Description

This course provides an introduction to basic principles of research in psychology. You will primarily <u>do</u> psychology in this course, rather than simply read about it. Research is both exciting and exacting. We hope the course will give you an appreciation of both qualities.

The course is designed to help you master five major aspects of doing research:

- 1. Design of experiments
- 2. Execution of experiments
- 3. Scientific writing
- 4. Computer analysis of results
- 5. <u>Critique of research</u>

The class and lab meetings will be online, synchronous, and will not be recorded. We will use Zoom for our meetings, and so you will need to be connected and ready when the class/lab meeting is scheduled to begin. I will typically send the Zoom link to you via email prior to each meeting.

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# Course requirements

Exams. There will be three take-home exams. All contain short answer and application items.

Papers. There will be three papers on each of the experiments. You will be learning the American Psychological Association style of scientific reports, which is the standard for journal articles in psychology. The three short papers will focus on subsections of a journal article, i.e. Methods, Results, Discussion. A final long paper will be a complete write-up of your independent project. An acceptable IRB proposal is prerequisite for an acceptable final paper. Failure to meet prerequisites will result in a grade of zero on the final paper.

Laboratory assignments. Each student must assist in designing and running a portion of the subjects in each experiment. Some of the experiments will be run in the scheduled lab, while the other labs will be scheduled more flexibly (e.g. whenever you can convince a friend to be in the experiment). You must complete your portion of the experiment on schedule, since the entire class will rely on your data.

Homework assignments. Homework will be assigned and graded on a regular basis to motivate you to keep-up with the reading. The 10 pt grading scale ranges from excellent (9-10) to no-response (0).

<u>Participation</u>. We will track and evaluate participation by noting your questions and

comments during class and by asking rounds of questions in class. Each student's daily participation will be scored from excellent (9-10) to no-response (0).

Class attendance. As in most classes, new material will be presented in the classroom. Unlike most classes, we often will make decisions jointly about the design of experiments in class. Your contribution is important, so come to class. Unexcused non-responses for assignments will result in a zero. (See Course Rules and Regs.)

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# Rules and Regs.

This may be one of the more demanding courses in Psychology. The material can be conceptually difficult, and you must produce on a daily basis. Every day or so, something is due in this class. It would be a serious mistake to get behind in the work. Therefore, to motivate you to complete your work on time, the following policies are in effect, consistent with University guidelines.

Missed exams, papers, labs, homework and participation will result in a grade of zero unless the absence is documented and constitutes a University approved absence. (Documentation must be written, e.g. a doctors excuse, notice of jury duty, notification of Covid19-related issues or IT-related issues, etc.) Whether you choose to attend class via Zoom or in person, you will need to log in to Zoom so everyone can hear your comments and questions, (This may change depending on the reliability of classroom audio/video systems).

However, if you are sick, or have other Covid19 or IT issues, and you email by 7:00 a.m. the day of class (7:00am for lab), you do not need to have documentation in order to have the absence excused (you must still make-up the missed work/assignments/test/etc....except for participation, for which a "make-up" will not be required). This "email" excuse may be used only for illness and Covid19/technical issues, and for a maximum of four times. Subsequent absences will required written documentation.

Homework and lab assignments are docked 2 pts if they are not posted by the specified time, 4 pts if they are not posted before meeting times, and 10 points if they are not posted by midnight on the due date.

Incomplete assignments are graded with a zero weight associated with the missing portions of the assignment.

Laptops are required for each class, and may be used only for remote viewing of class and discussion, note-taking and other assigned tasks. Browsing, checking email or texts, or other distracting use of laptops or mobile devices is not permitted during class or lab. Violations of this rule will lower participation grades.

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## **Grading System:**

Clemson University's grading system is described in the 2016-2017 Undergraduate Announcements, p. 25-27. Grades of A, B, C, D, F, I, P, NP and W may be given in accordance with academic regulations. For more information on this grading system, please see the Registrar's web site at http://www.registrar.clemson.edu/html/finalGrades.htm.

#### **Academic Integrity:**

The following is the official statement on academic integrity. Please consider placing this statement in your syllabus, or at a minimum, please reference in the *Undergraduate Announcements* and call your students' attention to it.

"As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a

Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form."

When, in the opinion of a course instructor, there is evidence that a student has committed an act of academic dishonesty, the instructor must make a formal written charge of academic dishonesty, including a description of the misconduct to Dr. Jeff Appling, Associate Dean of Undergraduate Studies. The reporting instructor may, at his/her discretion, inform each involved student privately of the nature of the alleged charge. In cases of plagiarism (I.B.2.) instructors may use the Plagiarism Resolution Form

available from the Office of Undergraduate Studies. <u>Instructors using this form for the first time</u> must consult with Dr. Appling (656-3022) prior to meeting with the student.

<u>Instructors suspecting a violation of the academic integrity policy should not assign a grade penalty until the process is complete</u>. For suspected academic dishonesty outside the course setting, please consult with the Associate Dean of Undergraduate Studies.

Instructors should include a class policy on submission of work that has been turned in for credit for a previous course.

Please call 656-3022 with any questions about academic integrity.

# **Class Rolls:**

Students can use iROAR to add courses through August 23, to drop courses without record through August 30, and to drop with a *W* grade through October 21.

Students that have not attended class by the second week, after the last day to add a class (August 23), should be removed from the roll using the enrollment correction form: <a href="http://www.registrar.clemson.edu/html/facultyForms.htm">http://www.registrar.clemson.edu/html/facultyForms.htm</a>

The Clemson University Title IX (Sexual Harassment) statement must be included: Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran's status, genetic information or protected activity in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at <a href="http://www.clemson.edu/campus-life/campus-services/access/title-ix/">http://www.clemson.edu/campus-life/campus-services/access/title-ix/</a>. Mr. Jerry Knighton is the Clemson University Title IX Coordinator. He also is the Director of Access and Equity. His office is located at 110 Holtzendorff Hall, 864.656.3184 (voice) or 864.656.0899 (TDD).

## **Attendance Policy:**

The academic resources of Clemson University are provided for the intellectual growth and development of students. Class attendance is critical to the educational process; therefore, students should attend scheduled courses regularly if they are to attain their academic goals.

In the event of an emergency, the student should make direct contact with the course instructor, preferably before a class or an exam takes place. Students should speak with their course instructors regarding any scheduled absence as soon as possible and develop a plan for any make-up work. It is the student's responsibility to secure documentation of emergencies, if required. A student with an excessive number of absences may be withdrawn at the discretion of the course instructor.

Course instructors must implement fair grading procedures and provide an opportunity to make up missed assignments and examinations that does not unfairly penalize the student when an excused absence is accepted. Such make-up work shall be at the same level of difficulty with the missed assignment or examination. Course instructors shall hold all students with excused absences to the same standard for making up missed assignments and examinations. While course instructors should seek to make reasonable accommodations for a student involved in University-sponsored activities, students should understand that not every course can accommodate absences and that absences do not lessen the need to meet all course objectives.

Absence from class is detrimental to the learning process, so course instructors may use reasonable academic penalties which reflect the importance of work missed because of unexcused

absences. <u>Course instructors who penalize students for unexcused absences must specify</u> <u>attendance requirements as related to grading in the course syllabus and must keep accurate</u> <u>attendance records</u>. Course instructors are obligated to honor exceptions to the university attendance policy for students covered by the Americans with Disabilities Act, as verified through paperwork issued by Student Accessibility Services.

# **Notification of Absence:**

The Notification of Absence module in Blackboard (<a href="http://bb.clemson.edu">http://bb.clemson.edu</a>) allows students to quickly notify instructors (via an email) of an absence from class and provides for the following categories: court attendance, death of family member, illness, illness of family member, injury, military duty, religious observance, scheduled surgery, university function, unscheduled hospitalization, other anticipated absence, or other unanticipated absence. The notification form requires a brief explanation, dates and times. Based on the dates and times indicated, instructors are automatically selected, but students may decide which instructors will receive the notification. This does not serve as an "excuse" from class, and students are encouraged to discuss the absence with their instructors, as the instructor is the only person who can excuse an absence. If a student is unable to report the absence by computer, he/she may call the Dean of Students Office for assistance.

Faculty members should feel free to call the Dean of Students for help in considering the validity and sufficiency of the documentation provided by students. The Dean of Students Office also assists students in identifying appropriate methods of documenting absences and assists families in using the electronic Notification of Absence system when students are unable to do so themselves.

# **Grading:**

It is very important for the success of our students that exams and other forms of graded work be evaluated and returned in a timely manner.

# **Mid-term Grades:**

No later than five days before the last day students can drop courses without receiving final grades (October 21), instructors of every undergraduate course shall make available for each student (a) the student's numerical course grade or (b) that student's letter ranking to date in that course (A-F or P/NP). More frequent feedback is strongly encouraged.

Both student and instructor are to recognize that this feedback reflects the student's performance up to that point in time, and as such, that student's final course grade may change based upon subsequent coursework performance(s).

## **Last Week of Classes:**

No examinations, other than laboratory examinations, are permitted on the last two days classes (December  $1_{\text{st}}$  & 2nd)

## **Final Examinations**

At their own discretion, instructors may excuse from the final examination, all students having the grade A on the coursework prior to the final examination. For all other students, examinations are required in all subjects at the end of each semester, except in courses in which final examinations are not deemed necessary as approved by the department faculty.

Final examinations <u>must</u> be given (or due) on the dates and at the times designated in the final examination schedule, except in laboratory and one-credit-hour courses where the final exam will be given at the last class meeting. All courses that do not specify a standard day of the week and meeting time are not assigned a final exam date and time, and the final exam must be given during the examination week at a date and time announced by the instructor. This time must be stipulated in the syllabus at the beginning of the term.

Circumventing the designated date/time for a final examination via consenting signatures from students

for a different date/time, though freely agreed to, is a violation of the final examination policy.

## **Posting of Grades**

The United States Family Educational Rights and Privacy Act (FERPA) prohibits the public distribution of grades or graded work. This is commonly understood to include posting grades by student names, initials, or student number. It is also understood to include placing of graded material in a public place where students go through the material to find their own graded work.

Faculty use iROAR to submit grades at the end of each academic term. Follow the steps below. (Note: Grades recorded in Blackboard are outside the official grade collection system.)

#### **Emergency Procedures**

Emergency procedures have been posted in all buildings and on all elevators. Students should be reminded to review these procedures for their own safety.

#### **Copyright Statement**

Materials in some of the courses are copyrighted. They are intended for use only by students registered and enrolled in a particular course and only for instructional activities associated with and for the duration of the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act. Students should be reminded to refer to the Use of Copyrighted Materials and "Fair Use Guidelines" policy on the Clemson University website for additional information: <a href="http://www.clemson.edu/library/">http://www.clemson.edu/library/</a>

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*Research Methods, Statistics, and Applications* 2nd edition, by Kathrynn A. Adams and Eva K. Lawrence.

In addition to this text, readings may be assigned as needed.

Dr. Ben Stephens Psych 3100-Advanced Experimental Psychology Fall 2021 TA - Stephanie Six

# Course Calendar

| Da<br>te | Topic in class        | Read<br>before<br>class | Due:<br>Posted to<br>Website by<br>7:00<br>a.m. <u>before</u><br>Class | Lab: Due post website by end of lab period |
|----------|-----------------------|-------------------------|--|--|
| 8/1      | Course overview       | CH 1                    | CH1 HW -<br>Define   |  |
|          | Science in society    | IV and DV               | independen<br>t variable   |  |
|          | <u>Laptop study</u>   |                         | and dependent  |  |
|          | Participation scoring |                         | variable. G  |  |
|          | <u>Demo</u>           |                         | example of each in a   |  |
|          | Coffee                |                         | study about footballHo w to do HW                                      |  |
|          |                       |                         | Post your<br>HW to<br>Canvas   |  |
|          |                       |                         | Check your<br>verify that<br>your SPSS<br>Citrix app<br>works. Us      |  |

| 8/2 | Scientific Method  Laptop study                                | Ch 1 Laptop study | e SPSS to calculate the mean and standard deviation of these scores 88, 78, 82, 80, 93, and 65. Export SPSS output to an excel file and post it to Canvas  HW CH 1 Define three terms, give example of each as applies to the article concerning Multitaskin g with Laptop Study Upload to | Design EX 1, Post Method Protocol (10 HW pts)  LOS w Likert  How to Google Forms  https://www.youtube.com/watch?v=fXQDFhKFuTU  Part II Assign- See Canvas Part III Assign - See Canvas |
|-----|--|-------------------|--|--|
|     |  |                   | Upload to<br>Canvas<br>10 HW pts   |  |
| 8/2 | Validity, Reliability and Measurement  L.O.S. Want More Money? | Ch 3              | HW Ch 3  Define three terms, give example of how each  |  |

|     |  |   | might apply to a study on Multitaskin g on laptops in class. (10 HW pts)   |  |
|-----|--|---|--|--|
| 8/3 | Describing your sample  Water                    | Ch5                                       | HW CH 5 Define three terms, give example of each in a baseball or football study (10 HW pts)  Topic I (10 HW pts) Experiment al Design e.g. LOS, S nakes | Data Collect, Post data file (10 LAB pts)  CT Assess (10 pts)  |
| 9/2 | Causal claims  DWT  Shocking                     | Ch 9                                      | CH 9 HW<br>Define<br>three<br>terms, give<br>example in<br>a baseball<br>or football<br>study  |  |
| 9/7 | Writing  Methods format etc  Beyond descriptives | Ch 6 and 7 Append ix B (Metho ds section) | HW CH 6<br>and 7 HW<br>pick 3<br>terms,<br>define each<br>term, and<br>apply each  | Cronbach alpha example, LOS Results (10 HW pts)  Practice data set tasks CH 3  https://statistics.laerd.com/spss- tutorials/cronbachs-alpha-using- |

|     |                     | Method         |                      | spss-statistics.php                               |
|-----|---------------------|----------------|----------------------|---|
|     |                     | s rubric       | study.               |   |
|     |                     | Method         |                      | https://statistics.laerd.com/spss-                |
|     |                     | s <u>style</u> |                      | tutorials/independent-t-test-                     |
|     |                     |                |                      | using-spss-statistics.php                         |
|     |                     |                |                      |   |
|     |                     |                |                      | Results paragraph example                         |
|     |                     |                |                      |   |
|     |                     |                |                      | Draft of Method section                           |
| 9/9 | Independent Groups  | Ch 10          | Review C             |   |
|     | macpenaent Groups   | (up            | h                    |   |
|     |                     | ` -            |                      |   |
|     |                     | p. 328)        | 10                   |   |
|     | Cuitiana            | p. 328)        | list 6 terms         |   |
|     | <u>Critique</u>     |                |                      |   |
|     |                     |                | needing clarificatio |   |
|     |                     |                | n. Define            |   |
|     |                     |                |                      |   |
|     |                     |                | each from            |   |
|     |                     |                | text, give           |   |
|     |                     |                | example              |   |
|     |                     |                | from text,           |   |
|     |                     |                | indicate             |   |
|     |                     |                | nature of            |   |
|     |                     |                | confusion            |   |
|     |                     |                |                      |   |
|     |                     |                | <u>Sample</u>        |   |
| 9/1 | Exam I (15% grade)  |                |                      | Lit Search ( Topic II 10 HW pts)                  |
| 4   |                     |                |                      | 210 2 00 2 01 ( 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 9/1 | Dependent Groups    | CH 10          | Method               |   |
| 6   | Dependent Groups    | (p 328 -       |                      |   |
| 0   |                     |                | LOS (5%              |   |
|     |                     | 355)           | ,                    |   |
|     |                     | Ch 11          | grade due            |   |
|     |                     |                | in class             |   |
|     |                     |                | hard copy)           |   |
|     |                     |                | May adjust           |   |
|     |                     |                | due dates if         |   |
|     |                     |                | Move-in              |   |
|     |                     |                | week is              |   |
|     |                     |                | issue                |   |
| 9/2 | Building a proposal | CH 2           |                      | Two posts (10 HW pts)                             |
| 1   | Design Snake Lab    | _              | HW CH                | 1 ( · · · · · · · · · · · · · · · · · ·           |
| -   | NPR                 |                | Pick 4               | 1) Data Collect Snake                             |
|     | Backus              |                | terms from           | ppt hamster                                       |
|     | Dackus              |                |                      |   |
|     |                     |                | CH 9, 10,            | Post excel graph and statement of                 |

|     |   |      | or 2 that are confusing. Define each term and indicate what the nature of the confusion is. (10 HW pts)  | Proposal Development- Post 1) possible manipulations, 3) possible DVs, and 3) is your proposal an experiment? |
|-----|---|------|--|---|
| 9/2 | Descriptive research  Brains  | Ch 4 | HW Pick 4<br>terms from<br>CH 4 that<br>are<br>confusing.<br>Define<br>each term<br>and<br>indicate<br>what the<br>nature of<br>the<br>confusion<br>is. (10 HW<br>pts) |   |
| 9/2 | Writing Results  Dependent ANOVA  http://www.ted.com/talks/ben_gol dacre_battling_bad_science  More illusions |      |  | Data Anal (10 HW pts) <u>Laerd</u> Project Materials (10 HW pts) Proposal development <u>CITI</u>             |
| 9/3 | Review  | 10   | HW: 6<br>terms from<br>CH 10, 11,<br>2, and<br>4. What<br>part of the  |   |

|           |  |                                    | concept is confusing?   |  |
|-----------|--|------------------------------------|---|--|
| 10/<br>5  | Exam II (10% grade)  | CH 10<br>(p328-<br>355),<br>11,2,4 |   | Data Collect Proposal development (Topic III) Finalize project materials CITI 10 HW pts  |
| 7         | Factorial Design   | CH 12                              | Results<br>section due<br>(5% grade<br>due in class<br>hard copy)   |  |
| 10/<br>12 | Fall Break   |                                    | FB  | FB   |
| 10/14     | Factorial Design   | CH 12                              | HW Pick 4 terms from CH 12 that are confusing. Define each term and indicate what the nature of the confusion is. (10 HW pts) |  |
| 10/19     | Correlational design  Conclusions: Writing Discussion  Discussion paper: outline | Ch 8 p<br>227 -<br>239             | Post CITI certification (10 pts)  HW Pick 4 terms from CH 8 that are confusing. Define each term and indicate what the        | Data Anal <u>Laerd</u> (Optional - 10 HW pts)  Prepare <u>IRB Form</u> , <u>Info</u> <u>Letter</u> (Required - 10 HW pts)  Proposals |

| 10/21     | Non-parametric                                  | CH 13<br>p 437-<br>458                                   | nature of the confusion is. (10 HW pts)  Topic III and proposal ppt (10HW pts)  |                     |
|-----------|---|--|---|---------------------|
| 10/<br>28 | Proposals                                       |  | Proposals (<br>10HW pts)  | Proposals           |
| 10/28     | Generate final IRB proposals                    |  | Discussion<br>section<br>due (5%<br>grade due<br>in class<br>hard copy)   |                     |
| 11/2      | Writing Introduction  How to decide  Cuddy Talk | Ch 15  | HW Pick 4<br>terms from<br>CH 15 that<br>are<br>confusing.<br>Define<br>each term<br>and<br>indicate<br>what the<br>nature of<br>the<br>confusion<br>is. (10 HW<br>pts) | Individual meetings |
| 11/4      | Review  | CH<br>12,8,13<br>,15,<br>Propos<br>als,<br>Cuddy<br>Talk | HW: 6<br>terms<br>shaky (10<br>pts) - What<br>part of<br>definition<br>confusing?   |                     |
| 11/9      | Exam III (10% grade)                            |  |   | Individual meetings |

| 11/<br>11 | Final Report and App B p 547-555 | Intro Draft (10 pts)                 |                     |
|-----------|----------------------------------|--------------------------------------|---------------------|
| 11/<br>16 | IM                               | Prelim<br>Methods<br>due (10<br>pts) | Individual meetings |
| 11/<br>18 | IM                               | Prelim<br>Results (10<br>pts)        |                     |
| 11/<br>23 | CAT Assessment (10 pts)          | ppt draft<br>due (10pts)             | Individ Meet        |
| 11/<br>25 | Thanksgiving                     |                                      |                     |
| 11/<br>30 | Final Presentations (2%)         | final ppt<br>due                     | Final Presentations |
| 12/<br>2  | Final Presentations              |                                      |                     |
| 12/<br>3  |                                  | Final<br>Report (30<br>%)            |                     |

# **Portfolio: Demonstration of Distributed Competencies**

See <a href="http://www.clemson.edu/academics/programs/eportfolio/competency/">http://www.clemson.edu/academics/programs/eportfolio/competency/</a>

This course helps you to meet some requirements for your distributed competencies, so you should be putting documents that satisfy these competencies in your general education portfolio. Please put the following documents in the following sections of your portfolio:

# **Ethical Judgment**

-- Your IRB proposal with a rational statement explaining how your project exemplifies ethical judgement.

Reasoning, Critical Thinking, and Problem-Solving

| Your research proposal and final research paper with a rational explaining |
|--|
| how your project exemplifies critical thinking.                            |
|  |

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