

## Research Methods and Design

**Instructor:** Todd C. Baird, Ph.D.   **Contact:** Office - (626-7724) Cell - (920-4215)  
**Email-** (tbaird@weber.edu)           **Course Website:** <http://faculty.weber.edu/tbaird>  
**Office Hrs:** M,W, F (9:00-10:00 a.m.) T, TH (11:15-12:00) or by appointment

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### Required Texts:

- 1) Bordens, Kenneth S. & Abbott, Bruce B.(2005). *Research Design and Methods; A Process Approach*. 6th Ed. New York, NY: McGraw Hill.
- 2) Stanovich, Keith E. (2007). *How to think straight about psychology*. 8th Ed. New York, NY: Allyn & Bacon.

Aspects of the syllabus are subject to changes. These will be announced in class if they occur.

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### Course Objectives:

1. Students will acquire both conceptual and procedural knowledge about research methods, measurement, design, statistical, and presentational issues in psychology.
2. Students will develop and demonstrate beginning-level research skills by working in groups designing, carrying out, analyzing, writing-up, and presenting two different research projects.

### Requirements:

#### 1. Class Attendance and Participation.

Attendance for this course is mandatory. You are allowed to miss 3 class periods after which 10 points will be deducted from your grade for each absence. Each individual is invited and encouraged to participate in class discussions. Please do not either remain disconnected from discussions or monopolize class time. In order for you to participate and contribute effectively, please come to each lecture having read the associated materials in the text. You should come to class with at least one question about the material.

Mutual respect for each other is expected. With the advances in technology some students have spent class time on their laptops playing games or using their cell phone to text-message their friends. I have zero tolerance for this behavior and will invite you to leave the class should I observe any occurrence. Please turn off your phones as you come into class. If you have employment that requires you to be on-call please inform me of this so accommodations can be made. If a student continues to disrupt or disrespect others in the class he/she will be asked to withdraw from the course.

For issues related to student rights and responsibilities see the Student Rights and Responsibilities section on the Weber State University website <http://documents.weber.edu/ppm/6-22.htm>.

Services for Students with Disabilities (SSD) is located in room 181 of the Student Service Center. Any student requiring accommodations for this course must contact SSD. The following link will provide you with contact information <http://weber.edu/ssd>.

2. **Article Reviews.** Over the course of the semester you will be required to review three research articles. The first article we will read and critique together in class. The second article will be one you choose that is related to your large project (see below). You will read and critique this article outside of class and write up a two page summary. The format of this summary will be handed out in class and posted on the course website. The third article will be given to you in class and you will be required to read, critique, and summarize the research article within a set amount of time. Should you miss class it is your responsibility to get the article from me and make arrangements prior to the class you will miss. Late assignments will be deducted 5% per day that the assignment is late with no excuses except for death of a loved one, serious accident, or a similar reason (including weekend days).
3. **Examinations.** The exams will be available in the Social Science Testing Center, Lampros Hall Testing Center, Student Center Testing Center, and the Davis Campus Testing Center. The calendar (below) provides you with the dates of the exams. You will note that each exam is open for 3 days. Do not wait until the last day to take the exam. Do not ask for an extension unless you can validate an emergency, death of a loved one, or a similar event in your life. If you plan on being away on school or personal business during an exam you must arrange with me to take the exam prior to your departure. You are responsible for checking the hours of operation of the testing center for each exam date as they may vary. You may check the hours of operation by going to (<http://weber.edu/testingcenter.xml>). The first two exams consist of 50-65 multiple-choice questions. The third exam includes approximately 30 multiple choice questions as well as two essay questions. The majority of questions will be drawn from the text with the remaining coming from class lectures. The third or final written exam is not comprehensive.

Plagiarism and cheating will not be tolerated. If you are involved in either of these behaviors you will be referred to appropriate Weber State University authorities. As a *minimal* consequence, you will receive 0 points on that assignment or exam. For more information on student ethics please go to <http://documents.weber.edu/ppm16-22.htm>.

4. **Quizzes.** Four quizzes will be given on the Stanovich readings (see the calendar). Questions will include a few multiple-choice items but the majority will be short answer. Quizzes will be taken in class as indicated on the class schedule.

5. **Small Project.** We will plan and carry out one experiment as a class. This will include looking up two articles on each of the variables being studied writing an abstract and methods section, carrying out the experiment, entering data, analyzing data, and writing up the results. The write-ups need to be in APA format. More details will be given in class.
6. **Final Project.** Both in and out of class you will get together with your research group and design a larger study. This will require you to write a research proposal and submit the required paperwork to Weber State Universities Institutional Review Board. In addition to submitting the proposal for approval to the IRB, you will need to complete the required ethics tutorial required (approximately 2 hours online). After getting approval from the IRB to conduct your study you will gather your data and complete approximately an 8-10 page paper including an abstract, introduction, methods, results, and discussion sections. Again you will be required to run the appropriate statistics on the data using SPSS. The paper must be in APA format.
7. **Group Presentation.** In addition to the completion of a paper summarizing your final project, you will be required to give a group presentation in class. This will be a graded presentation.
8. **Oral Defense & Group Participation.** During the last week of class each student will schedule a fifteen-minute oral defense with the instructor. During this time I will briefly discuss with you the contribution of yourself and each of your group members (you will be asked to distribute among group members 100 points). The remaining time will focus on discussing your project. I will ask you questions related to your project and assess your understanding of research methods and design.

**Grading:** Your grade will be based on a percentage of all points possible. The total points possible and grade assignments will be as follows:

**Written Exams**

Exam #1:	100 Points
Exam #2:	100 Points
Exam #3:	100 Points

**Stanovich Quizzes**

Quiz 1	20 Points
Quiz 2	30 Points
Quiz 3	30 Points
Quiz 4	30 Points

**Article Reviews**

Article Review #1:	25 Points
Article Review #2:	25 Points

Article Review #3      25 Points  
**Project (Papers and Presentations)**

**Small Project**

Paper:                      25 Points

**Project #2**

Lit. Rev. & Proposal.    50 Points  
 Final Paper:              100 Points  
 Presentation:              20 Points

**Oral Defense/Final**

Participation              50 Points  
 Exam                        100 Points

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Total =                      890 Points

Your grade will be calculated using the following:  
 Your total points/890 x 100)= percentage

94-100 % = A              73-76 % = C  
 90-93 % = A-              70-72 % = C-  
 87-89 % = B+              67-69 % = D+  
 83-86 % = B                63-66 % = D  
 80-82 % = B-              60-62 % = D-  
 77-79 % = C+              Below 59 % = E

**Class Schedule:**

Date	Reading Assgn. by Chapter	Class Focus	Exams	Project Calendar
	Stanovich Ch 1	Syllabus Review Psychology & Science		
	Stanovich Ch 2 Bordens Ch 1	Falsifiability Research Process		
	Bordens Ch 3 and Ch 15	Outline of Journal Articles	Quiz Stanovich (Ch 1-2)	
	Stanovich Ch 3	Operationalism		
	Stanovich Ch 4 and Ch 5	Testimonials & Case Studies / Correlation		Due: Article Review #1
	Stanovich Ch 6	Control	Quiz Stanovich (Ch 3-5)	
	Bordens Ch 4	Choosing a Design		

		Design Study #1		
		Carry out Study #1 and SPSS		
		SPSS in Computer Lab		
	Stanovich Ch 7	Is It Real		
	Bordens Ch 2	Developing Ideas	Quiz Stanovich (Ch 6-7)	
		Presentations		Due: Project #1 Paper
		Choose Study #2 / The Literature Review	Exam #1 (Bordens 1-4)	
	Stanovich Ch 8-9	Einstein and Magic Bullets		Due: Article Review #2
	Bordens Ch 5	Making Observations		Due: Article Review #3
	Bordens Ch 5 & 6	Making Observations and Ethics	Quiz Stanovich (Ch 8-9)	
	Bordens Ch 7	Correlational Designs & Observation		Due: Literature Review
	Bordens Ch 7	Correlational Designs & Observation		
		Survey vs Experimental (Review)		Due: Literature Revision (Optional)
	Bordens Ch 8	Survey Research		
	Bordens Ch 8	Survey Research & Methods Section		Due: Proposal & IRB
		Review IRB for Changes		
	Bordens Ch 9	Experimental Designs		
	Bordens Ch 9	Experimental Designs	Exam #2 Bordens (5-8)	
	Bordens Ch 9	Experimental Designs		
	Bordens Ch 10	Specialized Designs		
	Bordens Ch 11	Single Subject Designs		Gather Data Until April 4th
	Bordens Ch 12	Describing Data		
	Bordens Ch 13	Inferential Stats		
	Bordens Ch 13	Inferential Stats		
	Bordens Ch 15	Reporting Research		
		Don't worry we will do something on this day		
		Don't worry we will do something on this day		
		Analysis of Data		Analysis of Data

April 11th	No class	No Class		
April 14th		Analysis of Data		Analysis of Data
April 16th		Class Time on Projects		
April 18th		<u>Present Final Project &amp; Defense</u>		
April 21st		<u>Present Final Project &amp; Defense</u>		Final Paper Due
April 23rd		<u>Oral Final Exam (comprehensive)</u>		
April 24-26		<u>Oral Final Exam (comprehensive)</u>		
April 28 - May 2			<b><u>Take Final Exam</u></b>	