

Syllabus for  
**PSY 401--Experimental Psychology Lecture and Lab**  
3 Credit hours  
Fall 2022

**I. COURSE DESCRIPTION**

A survey of the fundamentals of psychological research, experimentation, data analysis, and report writing.

Prerequisites: PSY 201 and MAT 232

This course will explore the fundamentals of psychological research: the logic of experimentation and the empirical approach, experimental design, and data analysis, with application of these to laboratory and non-laboratory settings. Topics include sampling techniques, group assignment, statistical techniques involving comparing means, and interpreting results in the broader context of experimental research.

**II. STUDENT LEARNING OUTCOMES FOR THIS COURSE**

As a result of successfully completing this course, the student will be able to do the following:

- A. Criticize research using experimental designs.
- B. Use current literature on a selected topic to inform the student on the next appropriate step in the research process.
- C. Formulate appropriate hypotheses.
- D. Explain how to design an experimental study in terms of data collection and analysis.
- E. Describe the basic steps in t-tests, one-way and multi-way ANOVAs, and Factorial ANOVAs.
- F. Demonstrate correct data analysis using SPSS for the above procedures.
- G. Draw reasonable conclusions from the data analysis.
- H. List and discuss appropriate ethical principles when designing and analyzing experimental research.
- I. Report findings of an experimental study in acceptable APA format.
- J. Practice healthy habits for behavioral hygiene to achieve personal and professional goals with respect for the self and others as whole people: body, mind, and spirit.
- K. Cultivate a proactive mindset to discern key issues and resources and pursue transformative solutions for both intra- and interpersonal problems regardless of the scope of any issue.

**III. ASSOCIATED PROGRAMS**

This course meets degree completion requirements for the Psychology degree.

- 1.1 Describe key concepts, principles, and overarching themes in psychology.
- 2.1 Use scientific reasoning to interpret psychological phenomena.
- 3.2 Adopt values that build community at local, national, and global levels.
- 4.1-4.2.1 Demonstrate effective communication skills (e.g., writing and presentation) for different purposes.
- 5.2 Exhibit self-efficacy and self-regulation.
- 6.1 Apply Christian principles to psychological systems.

**IV. UNIVERSITY OUTCOMES**

This course aligns with the following University Outcomes as indicated on the last page.

- A. Spiritual Integrity
- B. Personal Resilience
- C. Intellectual Pursuit
- D. Global Engagement
- E. Bold Vision

### III. TEXTBOOKS AND OTHER LEARNING RESOURCES

#### Required Materials

##### Textbooks

American Psychological Association (2019). *Publication manual of the American Psychological Association*. (7<sup>th</sup> ed.). Publisher: Author. (Print ISBN: 9781433832154, 1433832151; eText ISBN: 9781433832185, 1433832186)

Smith, R. A., & Davis, S. F. (2013). *The Psychologist as detective*. (6<sup>th</sup> ed.) Prentice Hall. (ISBN: 9780132277310)

### V. POLICIES AND PROCEDURES

#### A. University Policies and Procedures

1. Students and faculty at Oral Roberts University must adhere to all laws addressing the ethical use of others' materials, whether it is in the form of print, electronic, video, multimedia, or computer software. Plagiarism and other forms of cheating involve both lying and stealing and are violations of ORU's Honor Code: "I will not cheat or plagiarize; I will do my own academic work and will not inappropriately collaborate with other students on assignments." Plagiarism is usually defined as copying someone else's ideas, words, or sentence structure and submitting them as one's own. Other forms of academic dishonesty include (but are not limited to) the following:
  - a. Submitting another's work as one's own or colluding with someone else and submitting that work as though it were his or hers;
  - b. Failing to meet group assignment or project requirements while claiming to have done so;
  - c. Failing to cite sources used in a paper;
  - d. Creating results for experiments, observations, interviews, or projects that were not done;
  - e. Receiving or giving unauthorized help on assignments
2. Final exams cannot be given before their scheduled times. Students need to check the final exam schedule before planning return flights or other events at the end of the semester.
3. Students are to be in compliance with University, school, and departmental policies regarding Whole Person Assessment requirements. Students should consult the WPA handbooks for requirements regarding general education and the students' majors.
  - a. The penalty for not submitting electronically or for incorrectly submitting an WPA artifact is a zero for that assignment.
  - b. By submitting an assignment, the student gives permission for the assignment to be assessed electronically.

B. Department Policies and Procedures

Policies and procedures for submitting artifacts can be found in the General Education Whole Person Assessment Handbook and the departmental handbook for the student's major.

C. Course Policies and Procedures

1. Evaluation Procedures

- a. Examinations—Three unit exams (100 points each)
- b. Lab Grade (400 points total)—Includes attendance/participation, lab work, and/or SPSS assignments and will be given throughout the semester. These may be unannounced, so regular attendance/participation is paramount.
- c. Experimental Research Project (200 points total)--See assignment requirements provided by the professor.

2. Whole Person Assessment Requirements

- a. The research proposal as detailed above will be submitted to the WPA folder in the D2L dropbox by the last day of class.
- b. Artifacts not submitted electronically or incorrectly submitted receive a zero for that assignment.

3. Other Policies and/or Procedures

1. Office hours are posted on D2L and the instructor's door. Students should email the instructor to make prompt arrangements for an appointment that is mutually convenient.
3. Late work will be assessed with a penalty of 10% per day for up to five days, after which time 50% typically will be deducted from the assignment grade.
4. When permission is granted for a late exam or make-up exam, 10% of the score is deducted from the exam grade.
5. Attendance/Participation - Students should be aware that attendance/participation records are kept and that attendance/participation is required.

VI. COURSE CALENDAR

<u>Week</u>	<u>Content</u>
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1	Overview of Psychological Research (Smith & Davis, Ch. 1)
2	Research Ideas and Ethical Concerns (Smith & Davis, Ch. 2)
3	Using Scientific Method in Psychology (Smith & Davis, Ch. 5)
4	Experimental Methods I (Smith & Davis, Ch. 6)
5	Experimental Methods II (Smith & Davis, Ch. 7)
6	Internal and External Validity (Smith & Davis, Ch. 8)
	<b>Exam I</b>
7	Basic Statistics (Smith & Davis, Ch. 9)
8	Hypothesis Testing (Smith & Davis, Ch. 9)
9	Two-Group Experiments (Smith & Davis, Ch. 9-10)
10	APA Format Research Reports (Smith & Davis, Ch. 14)
11	Multiple-Group Experiments (Smith & Davis, Ch. 11)

- 12      **Exam II**
- 13      Multiple-IV Experiments (Smith & Davis, Ch. 12)
- 14      Multiple-IV Experiments (Smith & Davis, Ch. 12)
- 14      **Exam III**
- 15      **(Proposal Due on the Final Exam date)**

*Due to specific needs of each class, there may be flexibility in what is discussed on a particular day. Thus, course calendar is intended as a general guideline.*

**Primary Program: Psychology**  
**PSY 401—Experimental Psychology**  
**Fall 2022**

This course contributes to the University and program outcomes as indicated below:

**Significant Contribution** – Addresses the outcome directly and includes targeted assessment.

**Moderate Contribution** – Addresses the outcome directly or indirectly and includes some assessment.

**Minimal Contribution** – Addresses the outcome indirectly and includes little or no assessment.

OUTCOMES	Significant	Moderate	Minimal
<b>Spiritual Integrity</b>			
PSY Outcome 6.1: Apply Christian principles to psychological systems.			<b>X</b>
PSY 401 Outcome H: List and discuss appropriate ethical principles when designing and analyzing experimental research.		<b>X</b>	

<b>Personal Resilience</b>			
PSY Outcome 5.2: Exhibit self-efficacy and self-regulation.	<b>X</b>		
PSY 401 Outcome J: Practice healthy habits for behavioral hygiene to achieve personal and professional goals with respect for the self and others as whole people: body, mind, and spirit.	<b>X</b>		

<b>Intellectual Pursuit</b>			
PSY Outcome 1.1: Describe key concepts, principles, and overarching themes in psychology.	<b>X</b>		
PSY Outcome 2.1: Use scientific reasoning to interpret psychological phenomena	<b>X</b>		
PSY 401 Outcome B: Use current literature on a selected topic to inform the student on the next appropriate step in the research process.	<b>X</b>		
PSY 401 Outcome C: Formulate appropriate hypotheses.	<b>X</b>		
PSY 401 Outcome D: Explain how to design an experimental study in terms of data collection and analysis.	<b>X</b>		
PSY 401 Outcome E: Describe the basic steps in t-tests, one-way and multi-way ANOVAs, and Factorial ANOVAs.			
PSY 401 Outcome F: Demonstrate correct data analysis using SPSS for the above procedures.			
PSY 401 Outcome G: Draw reasonable conclusions from the data analysis.			

<b>Global Engagement</b>			
PSY Outcome 3.2: Adopt values that build community at local, national, and global levels.			<b>X</b>
PSY Outcome 4.1-4.2: Demonstrate effective communication skills (e.g., writing and presentation) for different purposes.	<b>X</b>		
PSY 401 Outcome A: Criticize research using experimental designs		<b>X</b>	
PSY 401 Outcome I: Report findings of an experimental study in acceptable APA format	<b>X</b>		

<b>Bold Vision</b>			
PSY Outcome 3.2: Adopt values that build community at local, national, and global levels.			<b>X</b>
PSY 401 Outcome K: Cultivate a proactive mindset to discern key issues and resources and pursue transformative solutions for both intra- and interpersonal problems regardless of the scope of any issue.			<b>X</b>

(Revised 3/22/2022)