

PSY534 Research Design and Analysis II (2 credit hours) Syllabus

Course Description

Research Design and Analysis II is meant to continue from PSY 533, Research Design and Analysis I. Upon IRB approval of the proposal written in PSY 533, students are to conduct, analyze, write, and present their own original empirical research. Students should be able to apply correct statistical techniques to their data and draw scientifically valid findings. Students will be encouraged to present their research at regional, or national conferences, or to seek publication in scholarly journals. Finally, students should be able to create additional research that will answer questions empirically in the field, at their place of employment, or to create professional programming.

Course Learning Outcomes (CLOs)

By the end of this course, the student will be able to do the following:

1. Conduct a scientifically valid research project and write an APA-style report.
2. Apply different statistical techniques to answer a research question.
3. Statistically analyze data using various computerized statistical analysis.
4. Draw scientifically valid interpretations of findings from data.
5. Present research data in a manner consistent with professional academic journal requirements.
6. Critically evaluate research and differentiate good research from shoddy research.
7. Apply critical evaluation of research to real-world issues.

Course Topics

Content analysis
Psychological data
Quasi-experimental vs. non-experimental
Quantitative vs. qualitative designs
Non-causation statistical analysis
Factorial designs
Matched-pairs
Analysis of variance (ANOVA)
Regression
Effect size
A priori sample size determination
Sampling designs
Factor affecting observed power
Data coding

Data entry
Data cleaning
Data transformation
Missing data
Reporting results
APA writing and reporting of statistics
Results section format
Scholarly writing

Course Prerequisites/Corequisites

PSY533

Required Textbook(s) and Resources

These are the materials you will need to purchase for the course:

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: SAGE Publications. ISBN: 9781506386706

Girden, E. R., & Kabacoff, R. (2011). *Evaluating research articles from start to finish*. Thousand Oaks, Calif: SAGE Publications. ISBN: 9781412974462

Vogt, W. P., & Johnson, B. (2015). *Dictionary of statistics & methodology: A nontechnical guide for the social sciences* (5th ed.). Thousand Oaks, Calif: SAGE Publications. ISBN: 9781483381763 (Note: This is a general resource you will use throughout the course. Readings are not specified in the activities.)

IBM SPSS Software Grad Pack Standard

IBM SPSS SamplePower 3.0 (stand-alone package). (Note: This tool is not part of the SPSS Grad Pack Standard package and must be purchased separately.)

Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements. Where applicable, Tiffin University has obtained permission to use copyrighted material.

Minimum Student Technology Requirements

In order to have a quality learning experience in your online courses, the University requires that your primary computer (the computer used to access course materials and on which you will be required to install course-specific software) meets or exceeds certain specifications. Click on the following link to view the specifications:

[PC Recommendations](#)

Time Management

Time management is an important part of academic success. Please refer to the approximate (average) times noted below for readings and assignments to help plan your time accordingly.

Course Content

Please refer to individual activities for assessment guidelines.

WEEK 1			
Course Topics	Content analysis Psychological data		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Textbook (Creswell): Chapter 7 File (PDF): Presentation Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		0.50 hrs. 0.25 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Introductory Discussion: Initial Post	CLO(s): n/a	Monday	0.50 hrs.
Discussion: Initial Post	CLO(s): 1	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	1.50 hrs.
Assignment: Essay – Hypotheses	CLO(s): 1	Sunday	3.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			6.75 hrs.

WEEK 2			
Course Topics	Quasi-experimental vs. non-experimental Quantitative vs. qualitative designs Non-causation statistical analysis		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Textbook (Creswell): Chapter 3 Textbook (Girden & Kabacoff): Chapter 5 File (PDF): Presentation Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		0.50 hrs. 0.50 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion: Initial Post	CLO(s): 1, 2, 6, 7	Wednesday	1.00 hrs.
Discussion: Secondary Posts	CLO(s): as noted	Saturday	1.00 hrs.
Assignment: Plan for Procedures	CLO(s): 1, 2, 3	Sunday	4.50 hrs.
Approximate Weekly Time on Task (includes resources and activities)			7.50 hrs.

WEEK 3	
Course Topics	Data coding Data entry Data cleaning Data transformation Missing data

Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Textbook (Girden & Kabacoff): Chapter 12 IBM SPSS V22.0 Software Grad Pack Standard File (PDF): Presentation Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		0.50 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 3	Wednesday	2.75 hrs.
Discussion 2: Initial Post	CLO(s): 3	Wednesday	2.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	2.00 hrs.
Assignment: Critique of Study	CLO(s): 2, 4, 6	Sunday	3.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			10.25 hrs.

WEEK 4			
Course Topics	Effect size <i>A priori</i> sample size determination Sampling designs Factor affecting observed power		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Textbook (Girden & Kabacoff): pp. 67-70 IBM SPSS SamplePower 3.0 File (PDF): Presentation Tutorial Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		0.50 hrs. 0.25 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 1, 2	Wednesday	2.50 hrs.
Discussion 2: Initial Post	CLO(s): 2, 7	Wednesday	2.00 hrs.
Discussion: Secondary Posts	CLO(s): as noted	Saturday	2.00 hrs.
Assignment: Essay – Sample Size	CLO(s): 1, 2, 3, 4	Sunday	4.50 hrs.
Approximate Weekly Time on Task (includes resources and activities)			11.75 hrs.

WEEK 5			
Course Topics	Factorial designs Matched-pairs Analysis of variance (ANOVA) Regression		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Textbook (Creswell): Chapter 8 Textbook (Girden & Kabacoff): Chapter 6, 11 IBM SPSS V22.0 Software Grad Pack Standard Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		1.00 hrs. 1.00 hrs. 0.50 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time

Discussion 1: Initial Post	CLO(s): 1, 2, 7	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 1, 2, 7	Wednesday	1.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	2.00 hrs.
Assignment: Critique of Study	CLO(s): 2, 4, 6	Sunday	3.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			9.50 hrs.

WEEK 6			
Course Topics	Reporting results APA writing and reporting of statistics Results section format		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Textbook (Creswell): Chapter 8, pgs. 178-181; Chapter 9, pgs. 194-212 Textbook (Girden & Kabacoff): Chapter 10 File (PDF): Presentation Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		0.25 hrs. 0.50 hrs.
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 1, 5	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 3, 4	Wednesday	1.50 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	2.00 hrs.
Course Project: Critique of Study	CLO(s): 2, 4, 6	Sunday	4.50 hrs.
Approximate Weekly Time on Task (includes resources and activities)			9.75 hrs.

WEEK 7			
Course Topics	Reporting results APA writing and reporting of statistics Scholarly writing		
Read/Review			Approx. Time
Textbook, Lectures, and Other Resources	Some lectures/activities may contain additional resources. See individual lectures/activities for those requirements.		
Activity Type	Course Learning Outcomes	Due	Approx. Time
Discussion 1: Initial Post	CLO(s): 3, 4	Wednesday	1.00 hrs.
Discussion 2: Initial Post	CLO(s): 1, 4, 5, 7	Wednesday	1.50 hrs.
Course Project: Research Project	CLO(s): 1, 2, 3, 4, 5, 6	Thursday	2.00 hrs.
All Discussions: Secondary Posts	CLO(s): as noted	Saturday	10.00 hrs.
Approximate Weekly Time on Task (includes resources and activities)			14.50 hrs.

Approximate Time on Task for Entire Course	70.00 hrs.
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Grading Structure

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
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Introductory Discussion	n/a							0
Discussion 1	10	10	10	10	10	10	10	70
Discussion 2			10	10	10	10	10	30
Assignment	25	25	25	25	25	25		225
Course Project							100	100
Total	35	45	65	45	110	100	45	445

Activity Categories	Percentage of Total Points
Discussions	32%
Assignments	41%
Course Project	27%
Total	100%

Grading Scale	
Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
F	<70%

Please see the Academic Bulletin for grade appeal information.

FERPA

The Family Educational Rights and Privacy Act (FERPA) protects student information. Other than directory information, such as name, address, phone number, etc., students must give consent for individuals to gain access to a student's educational record, including grades, transcripts, and behavior reports (unless the student is under the age of 18). Students also have the right to review their educational records. For a more detailed explanation, please see the Student Handbook.

Office for Student Accessibility Services

Please refer to your Moodle Home page for Office for Student Accessibility Services contact information to coordinate reasonable accommodations for students with documented disabilities.

Veterans

Please refer to your Moodle Home page for services for veterans, service members, and their families.

Moodle and Non-Moodle Technical Support

Blackboard Student Services will provide 24x7 Moodle helpdesk support for all Tiffin University students and faculty. Locate contact information for Blackboard Student Services (Moodle-related issues) and for Tiffin University ITS helpdesk (non-Moodle related issues) on your Moodle Home page.

This syllabus is subject to change at the discretion of the University.