

RESEARCH METHODS & STATISTICS I: Fall 2016
PSYC 2961-01 (CRN: 28894)

SYLLABUS

Monday & Thursday 10:00 - 11:50 a.m.

Room: SAGE 4112

Instructor: M. Kalsher (kalshm@rpi.edu; 518-276-8267)

Office: Sage 4302

Office Hours: 12:00 noon - 1:30pm Monday/Thursday, and by appointment

Course Description

This course provides an introduction to basic methods of social/behavioral research and statistics. Topics include methodology and psychometric principles, experimental and non-experimental research design, data collection and analysis, and written communication of results. Students will gain proficiency with SPSS software and the R programming language. Each student will be expected to design a research project and then prepare and present a formal report that comports with formatting guidelines promulgated by the American Psychological Association (APA).

Learning Outcomes

By the end of this course, students will:

- demonstrate knowledge of psychometrics*, research methodology and design.
- demonstrate knowledge of descriptive, non-parametric and parametric statistical procedures, including the underlying assumptions/requirements of each test.
- demonstrate knowledge of and proficiency with SPSS statistical software and the R programming language.
- have designed a formal research project, submitted a formal write up of the project (formatted using American Psychological Association guidelines), and presented their ideas via an in-class presentation.

**Psychometrics is the field of study concerned with the theory and technique of psychological measurement.*

Text / Software

a) Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics* (4th Edition). London: Sage Publications. **ISBN-13:** 978-1-4462-4918-2 **ISBN-10:** 1446249182

b) IBM® SPSS® Statistics **Standard GradPack** v. 24 (for Windows or Mac). Available from <http://www.onthehub.com/spss/> (currently \$64.99 + \$4.99 download fee for a 6-month rental; \$109.99 + \$4.99 download fee for a 12-month rental). The 6-month option is sufficient for this course.

Purchase/download the STANDARD Gradpack; Do NOT purchase the BASE Gradpack

Supplementary:

Baguley, T. (2012). *Serious stats: A guide to advanced statistics for the behavioral sciences*. New York: Palgrave Macmillan. **ISBN:** 978-0-230-57718-3 (paperback).

Requirements

- Exams - Three in-class exams. The format of the exams will be varied and will include multiple-choice, true-false, matching, short-answer items, and problem-based.
- Take-home Problem Sets - Each problem set is comprised of one or more "word problems" and an accompanying data set(s). Students will analyze the data from the problem sets using SPSS (Statistical Package for the Social Sciences) or R and then write-up and submit the results in APA (American Psychological Association) format.
- Final Project - A research proposal including title, abstract, introduction, method, anticipated results, and discussion sections will be due by 5 p.m. on Friday, December 9th, 2016. A formal PowerPoint presentation of the proposal is also required during the last week of classes. More details concerning this task will be discussed in class.

Attendance Policy

Students will be expected to attend every class meeting. Students who choose to miss class are still responsible for the material covered in lecture and any assignments made during their absence. Note again that some material covered in class will not be in the lecture notes or text, so attendance is important to performance on the exams. When work is missed because of an excused absence, make-up will be by the class meeting following the missed session unless previously arranged with the instructor. Students anticipating missing class because of an excused academic-related activity are expected to complete work before the due date. Some of the excuses that are not considered legitimate include, but are not limited to: (1) ride leaving early or only available flight, etc., (2) big party or other social event, (3) other exam on same date, (4) did not know of the assignment, and (5) forgot the exam or assignment due date.

Grading

A summary of the percentages assigned to each of the graded components appears below.

Exams:	40%
Problem Sets:	40%
Final Project:	15%
Participation:	5%
TOTAL:	100%

Letter Grade

Letter grades will be based on the final weighted average and assigned as follows:

A :	>=93.0%
A- :	90.0%-93.0%
B+ :	86.8%-89.9%
B :	83.4%-86.7%
B- :	80.0%-83.3%
C+ :	76.8%-79.9%
C :	73.4%-76.7%
C- :	70.0%-73.3%
D+ :	66.8%-69.9%
D :	63.4%-66.7%
D- :	60.0%-

Electronic Device Use

Online activities (texting, Web-surfing, game-playing, etc.) during class that are not course-related is strongly discouraged. I reserve the right to ask students who do so to leave.

Academic Honesty

Student-teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of the courses they teach, and teachers must trust that the assignments students turn in are their own. Acts that violate this trust undermine the educational process. The Rensselaer Handbook of Student Rights and Responsibilities defines various forms of Academic Dishonesty and you should make yourself familiar with these. In this class, all assignments/quizzes that are turned in for a grade must represent the student's own work. In cases where help was received, or teamwork was allowed, a notation on the assignment should indicate your collaboration. Submission of any assignment that is in violation of this policy will result in a score of "0" for that assignment and referral to the Dean of Students. A second infraction will result in a course grade of "F".

If you have any question concerning this policy before submitting an assignment, please ask for clarification from the course instructor. We will discuss the semester-long project extensively in the first few weeks of the course.

Week	Monday	Thursday
1	8/29	9/1
2	9/5 (Labor Day)	9/8
3	9/12	9/15
4	9/19	9/22
5	9/26	9/29
6	10/3	10/6
7	10/10 (Columbus Day) Class on Tuesday 10/11	10/13
8	10/17	10/20
9	10/24	10/27
10	10/31	11/3
11	11/7	11/10
12	11/14	11/17
13	11/21	11/24 (Thanksgiving)
14	11/28	12/1
15	12/5	12/8