**Psychology 3256 – Advanced Univariate Statistics** **- Winter 2018**

CALENDAR DESCRIPTION

PSYC 3256 E Advanced Univariate Statistics Univariate analysis of variance including factorial designs. Multiple regression. The design of complex psychological experiments. The gathering, scrutiny, and transformation of psychological data. Performance and interpretation of advanced computer analyses. Prerequisites: PSYC/STAT 2126E/2127E. (LEC 3, TUT 1) (3 cr)

COURSE INFORMATION

Instructor: David R. Brodbeck, Ph.D.

Phone: 949-2301 x4336

E-Mail: dave.brodbeck@algomau.ca

Social networky things: dbrodbeck (xBox Live/PSN gametag). Dbrodbeck (twitter) facebook.com/dbrodbeck

Office: 302/506

Office Hours: TBA (DM or email is a great way to get me to answer questions, sort of virtual office hours).

Time and Location of Lectures: Tuesdays, and Thursdays 11:30 am

Course Website davebrodbeck.com

Course Blog: <http://people.auc.ca/brodbeck/blog>

TEXTBOOK

Howell, D. C. Statistical methods for psychology. Duxbury Press: Belmont, CA.

COURSE OBJECTIVES

The Purpose of this course is to learn a variety of advanced statistical techniques, concentrating on Analysis of Variance and Multiple Regression. Not only will you learn how to carry out such analyses, but, you will also learn why they work. This will enable you to read probably 90 percent of the literature out there[[1]](#footnote-1).

EVALUATION

You will be evaluated with in class tests (2), in class quizzes (6) and a final exam. There will also be four assignments where you will carry out some of the analyses we have done in class with SPSS or by hand or any other way you would like

Tests February 1 10%

March 8 15%

Final Exam. in April exam period 35%

Quizzes See Below 6 @ 3.33 = 20%

Assignments TBA 4 @ 5 = 20%

LECTURE SCHEDULE

Class Topic Reading

January 9 Introduction

11 Exploratory Data Analysis

16 EDA Chapter 2

18 Hypothesis Testing Ch. 3 Quiz 1

23 Hypothesis Testing Ch. 4

25 T-Tests Ch. 7

30 Power Ch. 8 Quiz 2

February 1 TEST #1

6 Simple ANOVA

8 Simple ANOVA Ch. 11

13 Comparisons Ch. 12 Quiz 3

15 Factorial ANOVA

27 Factorial ANOVA

March 1 Factorial ANOVA Ch. 13 Quiz 4

6 Repeated ANOVA Ch. 14

8 TEST #2

13 Repeated ANOVA

15 Mixed ANOVA Ch. 14 Quiz 5

20 Mixed ANOVA

22 Correlation and

27 Simple Regression Chs. 9 & 10 Quiz 6

29 Multiple Regression Ch 15

April 3 Review

ATTENDANCE

You are required to attend class meetings and you are expected to be on time and to contribute to class discussions. Absence from more than 20% of class meetings can result in loss of course credit.

ACADEMIC DISHONESTY

Please consult your course calendar for details, definitions and penalties.

MISSED TESTS

Please contact me ASAP so we can set something up. An acceptable excuse (e.g., illness) will likely result in a make up test. Workload is NOT an acceptable excuse (i.e., “But I have three papers due and a test next week.” My response to this is “Welcome to University!”)

1. Of course, 90 percent of descriptive statistics are made up. [↑](#footnote-ref-1)