

PSYC 3500 – Spring 2014
Statistical Methods in Psychology
3 SEMESTER HOURS
MWF 9:00 – 9:50; Section D
PB 2007

Dewar College of Education
Valdosta State University
Department of Psychology
Conceptual Framework: Guiding Principles (DEPOSITS)
 (adapted from the Georgia Systemic Teacher Education Program Accomplished Teacher Framework)

Dispositions Principle: Productive dispositions positively affect learners, professional growth, and the learning environment.

Equity Principle: All learners deserve high expectations and support.

Process Principle: Learning is a lifelong process of development and growth.

Ownership Principle: Professionals are committed to and assume responsibility for the future of their disciplines.

Support Principle: Successful engagement in the process of learning requires collaboration among multiple partners.

Impact Principle: Effective practice yields evidence of learning.

Technology Principle: Technology facilitates teaching, learning, community-building, and resource acquisition.

Standards Principle: Evidence-based standards systematically guide professional preparation and development.

REQUIRED TEXTBOOKS

Jackson, S. L. (2014). Statistics plain and simple. 3rd Edition
 VSU Bookstore: New: \$93.10 / Used: \$69.85

COURSE DESCRIPTION

Univariate and bivariate statistical methods for research in the behavioral sciences.

Prerequisites: PSYC 2500 and a grade of “C” or better in MATH 1111, MATH 1112, or MATH 1113.

This course will examine the basic principles of statistics focusing on statistics as implemented in the behavioral sciences. We will emphasize the methods of how and why we do statistics in Psychology. This class will consist of handouts, homework assignments, tests, in-class practice problems, quizzes and a Statistics Notebook.

Students will summarize and describe data via techniques of central tendency, variability, and graphing and will analyze and interpret data based on an understanding of hypothesis testing, sampling distributions, and the logic of analysis of variance (ANOVA). Further, students will develop research hypotheses and test their hypothesis via statistical tests (r , t , F) using SPSS. Additionally students will write up results using APA style.

The emphasis of this class is to prepare students for Experimental Psychology (PSYC 3600). Therefore, students must obtain a clear understanding of statistics and how to use SPSS. Be sure to keep all handouts, notes and completed assignments from this course as the material will become useful references for Experimental Psychology. This course provides the foundation for Experimental Psychology, so it is important to work hard to understand and retain the information.

LEARNING OUTCOMES FOR VSU'S CORE CURRICULUM

All learning outcomes in the major continue to build upon those in VSU's Core Curriculum listed at <http://www.valdosta.edu/gec/ProposedNewLearningOutcomes.shtml>.

COURSE OBJECTIVES (CO):

1. Students will develop a research hypothesis and test that hypothesis via statistical tests (r , t , F) by using SPSS 20.0 and also use SPSS to complete relevant assignments (Outcome 11).
2. Students will communicate and present psychological concepts, principles, and theories clearly and effectively, both in oral and written form (Outcome 6).
3. Students will write APA results sections for data analyses (Outcome 6, 11).
4. Students will summarize and describe data via techniques of central tendency, variability, and graphing.
5. Students will analyze and interpret data based on an understanding of hypothesis testing, sampling distributions, and the logic of analysis of variance (Outcomes 6 and 11).

COURSE ACTIVITIES/ASSIGNMENTS/REQUIREMENTS

1. Exams

There will be four exams over the course of the semester. The Final Exam (Exam 4) will be comprehensive and will cover material from the previous exams. The exams will consist of (a) multiple choice questions, (b) problems to solve, and (c) SPSS interpretation. Make-up exams will only be given provided you have both a legitimate excuse **and** written documentation. Arrive on time for exams with a pencil and calculator.

2. Homework

Homework assignments will be a composite of short answer questions, hand-calculated statistical tests and Excel / SPSS activities. The homework assignments will give you practice working with statistics and SPSS in a hands-on fashion. Homework assignments will be due at the beginning of class on the due date stated. Any homework assignment that is late (not in-hand when due at the beginning of class) will be assigned a 3 point deduction and subsequent 3 point deductions for further days late. No homework assignment will be accepted once the homework has been discussed in class. Homework submitted that is not stapled will receive an automatic 3 point deduction.

I cannot stop you from working with others on your homework. You should be entering your own data and any written components must be in your own words. It is obvious when students "share" their homework (such as printing off of the same file), and if there is evidence of this kind of academic dishonesty, all students involved will receive a "0" grade for the assignment, as well as receive a College of Education Level 2 Concern form.

3. Journal Article Review

In order to become familiar with APA style, experimental design and statistical interpretation, all students will write a paper summarizing a peer-reviewed journal article. The Journal Article Review will be due at the beginning of class on the due date stated. Any review that is late (not in-hand when due at the beginning of class) will be assigned a 3 point deduction and subsequent 3 point deductions for further days late. The details of this paper will be made clear in a handout provided during the semester.

4. Blazeview Quizzes on Textbook Materials

Students are expected to take brief quizzes on Blazeview. Each quiz will be worth a total of 2.5 points. If you do not take the quiz during the time allowed you will **not** be entitled to any make-up opportunities. The quizzes will be made available the Friday **two** weeks before the quizzes are due (see tentative schedule) allowing all students ample time to take the quizzes. All quizzes are due 15 minutes before the start of class on the day noted. There is a 7 minute time limit for each quiz. Quizzes not submitted within the 7 minute window will receive an automatic zero.

5. Statistics Notebook

The Statistics Notebook will consist primarily of APA style Results section revisions (revised from prior Homework activities), an SPSS user manual and selected handouts provided by the instructor. The Notebook will be submitted twice over the course of the semester (see tentative schedule). For both submissions the Notebook will be turned in via a 3-hole punch folder with the students name clearly on the outside of the folder with all pages secured and in proper order. Submissions will be due at the beginning of class on the date stated. Any work that is late (not in-hand when due at the beginning of class) will be assigned a 3 point deduction and subsequent 3 point deductions for further days late for that submission. Any notebook that is not in the prescribed order and/or containing unneeded material will receive an automatic 3 point deduction for that submission. The purpose of the Notebook is to provide you with an organized and accurate statistics reference tool for when you take Experimental Psychology (PSYC 3600). A detailed handout describing the structure and grading of the Notebook will be provided.

COURSE EVALUATION

Exams 1, 2 & 3 [50 points x 3]	= 150 points
Exam 4	= 75 points
5 Homework assignments [20 points x 5]	= 100 points
Journal Article Review	= 10 points
16 Module Quizzes [2.5 points x 16]	= 40 points
Statistics Notebook consisting of:	
<u>5 APA Homework re-writes / user guide [5 points x 5]</u>	<u>= 25 points</u>
Total Points:	= 400 points

GRADING SCALE

A = 100% - 90%	360 – 400 points (358 & 359 will be rounded to an A, 357.75 will not be rounded up)
B = 80% - 89%	320 – 359 points (318 & 319 will be rounded to a B, 317.75 will not be rounded up)
C = 70% - 79%	280 – 319 points (278 & 279 will be rounded to a C, 277.75 will not be rounded up)
D = 60% - 69%	240 – 279 points (238, 239 will be rounded to a D, 237.75 will not be rounded up)
F = 59% or less.	≤ 237

ATTENDANCE POLICY

Attendance will not be taken for this course. Keep in mind that for most students, attendance is needed to pass / do well in the course. As stated in the Undergraduate Bulletin, students that miss more than 20% of the scheduled classes will automatically receive an “F” for the course.

Additionally, there are only two kinds of absences: excused and unexcused. An excused absence is due to one of five possible reasons: (a) illness of student or serious illness of a member of the student’s immediate family; (b) death of a member of the student’s immediate family; (c) attendance on a sponsored university trip; (d) major religious holidays; and (e) any other circumstance which the instructor finds reasonable cause for nonattendance. Any absence that cannot be verified and documented as excused will be considered unexcused. Make-up work will **not** be allowed for an unexcused absence.

PROFESSIONALISM

Students withdrawing from the course before mid-term (Thursday, March 6) will be assigned a nonpunitive W. After midterm, a punitive WF is assigned and forwarded to the Registrar's Office for processing. To stop attending class does not constitute a withdrawal.

Students are welcome to email the course instructor for course-related questions, concerns, or communication. When emailing please use your Valdosta State University email. This enables the instructor to verify the sender of the email. While I may read an email from other source (e.g. gmail, yahoo) I will not respond to an email that does not end with @valdosta.edu. Be mindful that email communication between students and instructors is a professional correspondence. Lastly, put the course name and meeting time in the "subject" line. This will facilitate a quick and clear response.

Turn off your cell phone prior to the start of class & refrain from using lab computers during class time. Taking notes on lab computers is prohibited. Unauthorized use of phones and/or computers will result in a single point deduction from the student's final grade for the first (daily) offense. You will be notified of such deductions at the time of the offense. Further offense(s) (in a given day) will result in a five point deduction from the student's final grade.

DEWAR COLLEGE OF EDUCATION POLICY STATEMENT ON PLAGIARISM

Below is information directly quoted from the Academic Honesty Policies and Procedures:

Academic integrity is the responsibility of all VSU faculty and students. Faculty members should promote academic integrity by including clear instruction on the components of academic integrity and clearly defining the penalties for cheating and plagiarism in their course syllabi. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the faculty members' syllabi. All students are expected to do their own work and to uphold a high standard of academic ethics.

The full text of Academic Honesty Policies and Procedures is available on the Academic Affairs website (<http://www.valdosta.edu/academic/AcademicHonestyatVSU.shtml>).

The consequences for acts of academic dishonesty in the Dewar College of Education are:

FIRST OFFENSE:

1. The faculty member will administer an academic response (e.g. resubmit / retake assignment, failure of the assignment, failure of the course).
2. The faculty member will complete a Dewar College of Education Concern Form (<http://www.valdosta.edu/coe/studentsinfo.shtml>).
3. The faculty member will complete a Valdosta State University Report of Academic Dishonesty (<http://www.valdosta.edu/academic/AcademicHonestyatVSU.shtml>).

SECOND OFFENSE:

1. The faculty member will administer an academic response (e.g. resubmit / retake assignment, failure of the assignment, failure of the course).
2. The faculty member will complete a Dewar College of Education Concern form (<http://www.valdosta.edu/coe/studentsinfo.shtml>). The Dewar College of Education Concern Form Policy will be followed.
3. The faculty member will complete a Valdosta State University Report of Academic Dishonesty (<http://www.valdosta.edu/academic/AcademicHonestyatVSU.shtml>). According to the Academic Honesty Policies and Procedures document, “after a second (or subsequent) Report of Academic Dishonesty has been submitted to the Student Conduct Office in the Dean of Students Office, official charges will be drawn up and the disciplinary matter will be referred to the Valdosta State University Judicial Committee.”

ACCESSABILITY STATEMENT

Valdosta State University is an equal opportunity educational institution. It is not the intent of the institution to discriminate against any applicant for admission or any student or employee of the institution based on the age, sex, race, religion, color, national origin, disability, or sexual orientation of the individual. It is the intent of the institution to comply with the Civil Rights Act of 1964 and subsequent Executive Orders as well as Title IX, Equal Pay Act of 1963, Vietnam Era Veterans Readjustment Assistance Act of 1974, Age Discrimination in Employment Act of 1967, and the Rehabilitation Act of 1973.

Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farber Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit <http://www.valdosta.edu/access> or email: access@valdosta.edu.

STUDENT OPINION OF INSTRUCTION

At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available on BANNER. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous, and instructors will be able to view only a summary of all responses two weeks after they have submitted final grades. While instructors will not be able to view individual responses or to access any of the responses until after final grade submission, they will be able to see which students have or have not completed their SOIs, and student compliance may be considered in the determination of the final course grade. These compliance and non-compliance reports will not be available once instructors are able to access the results. Complete information about the SOIs, including how to access the survey and a timetable for this term is available at <http://www.valdosta.edu/academics/academic-affairs/vp-office/sois/welcome.php>

INSTRUCTOR

Name: Dr. Jeremy Tost
 Office Number: Psychology and Counseling Building, Room 2207
 Telephone Number: (229) 333-5621
 Email Address: jrtost@valdosta.edu
 Office Hours: Monday: 11:00 – 1:00
 Tuesday: 11:00 – 2:00
 Wednesday: 11:00 – 2:00
 Thursday: N/A
 Friday: 11:00 – 1:00
 Website: N/A

Tentative Schedule

Week	Date	Monday	Wednesday	Friday
1	1/13 - 1/17	Greetings / Syllabus Distribution	Science & Statistics (1 of 2) Text: Module 1 <i>HW1 Assigned</i>	Science & Statistics (2 of 2) Text/ Quiz 1 : Module 1
2	1/20 - 1/24	MLK Holiday No Class	Defining, Measuring, and Organizing Variables Text/ Quiz 2 : Modules 2 & 3	No Class
3	1/27 - 1/31	No Class	Measures of Central Tendency Text/ Quiz 3 : Module 4	Measures of Variation Text/ Quiz 4 : Module 5
4	2/3 - 2/7	Distributions & APA Style Text: Module 5 HW1 Due	Unit 1 review <i>HW 2 Assigned</i>	Exam 1: Modules 1 - 5
5	2/10 - 2/14	Standard Scores (z scores) Text/ Quiz 5 : Module 6	The Normal Distribution Text: Module 6	Probabilities Text/ Quiz 6 : Module 7
6	2/17 - 2/21	Hypothesis Testing Text/ Quiz 7 : Module 8	Single Sample z test (1 of 2) Text/ Quiz 8 : Module 9	Single Sample z test (2 of 2) Text: Module 9
7	2/24 - 2/28	Correlations (1 of 2) Text/ Quiz 9 : Modules 18 & 19	Correlations (2 of 2) Text: Modules 18 & 19 HW2 Due	Regression Text: Module 20
8	3/3 - 3/7	Unit 2 Review <i>HW3 Assigned</i> <i>Journal Article Review Assigned</i>	Exam 2: Modules 6-9, 18-20	Single-Sample t test (1 of 2) Text/ Quiz 10 : Module 10
9	3/10 - 3/14	Single-Sample t test (2 of 2) Text: Module 10	Ind. Samples t test (1 of 2) Text/ Quiz 11 : Module 11	Ind. Samples t test (2 of 2) Text: Module 11
10	3/17 - 3/21	Spring Break No Class	Spring Break No Class	Spring Break No Class
11	3/24 3/28	Paired Samples t test (1 of 2) Text/ Quiz 12 : Module 12	Paired Samples t test (2 of 2) Text: Module 12	t test Review Text: Modules 10 - 12 <i>HW 4 Assigned</i>
12	3/31 - 4/4	One-way Rand. ANOVA (1 of 4) Text/ Quiz 13 : Modules 13 & 14 HW3 Due	One-way Rand. ANOVA (2 of 4) Text: Modules 13 & 14	One-way Rand. ANOVA (3 of 4) Text: Modules 13 & 14 Journal Article Review Due
13	4/7 - 4/11	One-way Rand. ANOVA (4 of 4) Text: Modules 13 & 14	One-way Repeat. ANOVA (1 of 2) Text/ Quiz 14 : Module 15 Notebook 1 Due (HW 1 - 3)	One-way Repeat. ANOVA (2 of 2) Text: Module 15 HW 4 Due
14	4/14 - 4/18	Unit 3 Review <i>HW 5 Assigned</i>	Exam 3: Modules 10 - 15	Factorial ANOVA (1 of 5) Text/ Quiz 15 : Modules 16 & 17
15	4/21 - 4/25	Factorial ANOVA (2 of 5) Text: Modules 16 & 17	Factorial ANOVA (3 of 5) Text: Modules 16 & 17	Factorial ANOVA (4 of 5) Text: Modules 16 & 17 HW 5 Due
16	4/28 - 5/2	Factorial ANOVA (5 of 5) Text: Modules 16 & 17	Chi Square Text/ Quiz 16 : Module 21	Unit 4 Review Notebook 2 Due (HW 4 - 5)
17	5/5 - 5/9	Cumulative Review	No Class	Final Exam Emphasis on Modules 16, 17, 21 Thursday, May 8 8:00 AM - 10:00 AM