

Quantitative and Psychometric Methods
PSY 302 (Section: 2046) • 9:30am-10:20am WMF – Fall 2016

Instructor: Dr. Candace Lapan	Email: CLapan@fmarion.edu
Office: CEMC 109E	Office Hours: Tuesdays & Wednesdays 3:30-4:30pm

Prerequisites: PSY 206, 216

Prerequisite/Corequisite: PSY 220

Contact Information

- Drop-in hour: Wednesdays 1:00-2:00pm are reserved for drop-in visits by members of this class. No appointments, no need to ask, no need to tell me you're coming, & first-come first-served. *If you cannot make this time, please e-mail me several days and times of availability to schedule an appointment. If you do not send me your availability, I will send you an e-mail asking for this information, so save yourself the time and include it when you contact me for an appointment.*
- If you feel you are underperforming in the course and you are not sure why, please come see me EARLY in the semester and as often as you need to. Your success in this course is my top priority and I would love to help in any way I can.
- I do not discuss grade-related issues over email. Please set up a time to speak with me in person

Course Description:

This class focuses on the introductory statistical techniques used in social science research. Students will be introduced to concepts such as reliability, validity, measures of central tendency, variability, probability, and statistical techniques including: *t* tests (independent & dependent samples), Analysis of variance, Chi-square, correlation, and regression. Students are expected to take the material/concepts presented in class and apply them through a series of homework assignments and quizzes. The overall goal of the course is not only to help students understand the mathematical/statistical concepts presented but also to assist in the application of these procedures.

Course Goals:

- Introduce statistical concepts utilized in research within the social sciences
- Apply the mathematical/statistical techniques presented for social science research
- Demonstrate an ability to analyze and interpret data within the social sciences
- Provide practical examples as to when statistical techniques presented are appropriate methods for analysis.

Text & Required Materials

Salkind, N. J. (2014). Statistics for People Who Think They Hate Statistics. 5th edition. (Required)

iClicker or REEF Polling App (I recommend the app as it is easier to use and much less expensive). The app can be found at <https://reef-education.com/get-started/for-students/> Class will be held in the computer lab, so you can use the software on those computers rather than a phone or tablet.

Attendance

Class attendance is required. You are allowed three absences. **With the fourth absence, you will be dropped from this course.** You are expected to arrive on time and stay for the entire class in order to be counted as present. If you arrive late or leave early, you will be counted as absent. If you know in advance that you have an exceptional circumstance that will require you to leave class early or arrive late on a particular day, speak with me ahead of time to avoid this penalty.

If you miss class, you are responsible for obtaining notes from another student. I do not provide my personal lecture slides or notes to students. I am always available to meet with you in person outside of class to explain concepts you are still having trouble with **after** you obtain the notes and announcements from other students.

Blackboard:

All course documents can be found on Blackboard, including the syllabus, and lecture outlines. I will post lecture outlines prior to our meetings. Note that these outlines are *frameworks* for lectures – they will only contain a *fraction* of what I discuss in class and they will be intentionally incomplete. This is done purposely to encourage you to

maintain an active learning approach by taking notes on the visual and verbal presentation throughout the lecture. *You are encouraged to print out a copy of these outlines and bring them to class so that the note-taking procedure is less burdensome.*

Homework will also be completed via Blackboard. Grades will be posted on Blackboard. For help logging into blackboard, contact the Help Desk (661-1111). Students are automatically enrolled in this course on Blackboard. To access Blackboard go to: <https://blackboard.fmarion.edu/>

Note that the BB site is intended to supplement in-class learning and that it *never* serves as a substitute for class attendance. As a university student, it is your responsibility to be aware of all announcements/material covered in class. Occasionally, I will send e-mails to the class from the BB website. Note that all e-mail goes to your FMU account; therefore, you are responsible for checking this account daily.

Grading Policies:

Exam 1	20%
Exam 2	20%
Exam 3	20%
Exam 4	20%
Online Homework	10%
Participation	5%
<u>In Class Quizzes</u>	<u>5%</u>

Letter	Percentage
A	90-100
B+	87-89.9
B	80-86.9
C+	77-79.9
C	70-76.9
D+	67-69.9
D	60-66.9
F	<60

Participation

Your participation in class will be assessed through the use of iClickers or REEF Polling (see required course materials). Your responses will not be graded in terms of correctness. You must only supply responses to receive participation credit for the day.

Homework

Homework will be posted and completed on BB. Each homework assignment will consist of multiple choice or fill in the blank questions. All homework assignments are **due by 11:59pm on the date listed on the syllabus**. You can submit each assignment only once. No make-up homework will be given. No late homework will be accepted.

Blackboard assignments do not work properly if you use your phone or tablet. You'll have to use a computer.

To avoid unnecessary problems when you are completing activities:

- Be sure to download Adobe Flash to your computer.
- Use a reliable internet connection—not WIFI connections. Do not attempt to complete online work on your phone. If your connection is not reliable, you risk receiving a 0 for the assignment if your connection is lost.
- If you miss the deadline, you will receive a 0 for that activity. **There will be no make-up assignments and no extended deadlines.**
- If, however, you encounter a technical problem while completing your homework in on blackboard, **you must email me before the deadline for completion of the assignment**, in which case I will advise you of your options within 24 hours. Note: You will be permitted consideration due to technical problems for no more than two assignments.

Quizzes and Exams

Quizzes and exams will take place in class. By the nature of the material, all quizzes and exam are considered cumulative. You will be allowed a basic calculator. Cell phones, or tablets may not be used during exams or quizzes.

It is especially disruptive to others when you arrive late on a test day. At my discretion, students who arrive late to class on test days risk denial of entry into the classroom at my discretion (i.e., a grade of zero will be recorded). Please ensure that you adjust your travel time substantially so that you aren't hindered by 'surprises' such as lack of parking, missing a bus, inclement weather, etc. • If you arrive for any exam after at least 1 student has turned in the exam, you will not be permitted to take the exam and will receive a 0 on the exam.

Make-up exams or quizzes will not be given. In rare circumstances, an exception may be granted to a student who provides a validated excuse to me at least 1 week prior to the exam date or has documentation of a valid emergency situation (e.g., hospitalization at time of the exam). If you foresee being unable to take an exam on the assigned date,

contact me immediately to make alternate arrangements. If a make-up exam is given, it should be taken ASAP, but no later than 2 days after the student's return to school.

Extra Credit: You may earn up to 5% extra credit. Extra credit will be offered randomly throughout the semester in class. This may include opportunities such as an extra credit in class pop quizzes, activities, or an attendance bonus. **No other extra credit will be provided.**

Class Policies

E-mail Etiquette

You are *always* encouraged to contact me via e-mail with any questions or concerns that you may have. However, I ask that you comply to the following "house rules":

- (1) Please send e-mail and reply to my e-mails from your FMU account. Given security risks, I will not open e-mail from other accounts.
- (2) Please check the syllabus and BB *first* to see if your question can be answered there. This cuts down on the number of e-mails that need to be answered, which results in faster replies when you need help. *If you ask a question that has already been answered on the syllabus/BB, you will not receive a reply.*
- (3) Please use appropriate etiquette when you e-mail and I will do the same in return: (a) begin with a greeting; (b) state who you are and which class/section you are in; (c) end with an appropriate signature. Don't forget to use spell-check!

Example of appropriate e-mail format:

"Dear Dr. Lapan,
My name is [YOUR FULL NAME] and I'm in your [NAME OF COURSE]. I have a question about X
Thanks,
[YOUR NAME]"

Example of inappropriate e-mail format that will result in no response (lack of greeting; no personal identification; no reference to course name; no signature; inappropriate language):

Hey,
'So i was wonderign when you were gonna post the notes?'

Proper e-mail etiquette is *extremely* important in that (a) it enables us to be more efficient in helping you because we won't lose time trying to figure out who you are or what you are asking; (b) it is a vital skill to have in the "real world." Professional relationships necessitate professional e-mail correspondence. Thanks in advance for your cooperation.

Classroom Professionalism

I expect all students to conduct themselves in a professional manner in the classroom. Out of respect for other students in the class as well as the professor, the use of cell phones, iPods, earphones, or any other similar electronic or digital devices during class time is prohibited. Please set cell phones to silent (not vibrate) and put them in your bag or in your pocket. Laptops are permitted for class-relevant purposes (i.e. note-taking) only. However, **I highly recommend that you do not use your laptop for note taking purposes and would be happy to show you research which demonstrates the benefits of taking notes by hand.** Students are expected to be on task during class. Students engaging in off task activities during class (e.g., texting, wearing headphones, checking social media, browsing the internet, and sleeping) will be marked as absent. Again this policy is for your benefit and I would be happy to provide you with scientific research findings which document the disadvantages of multitasking.

Students are expected to respect others in the room by remaining quiet while those recognized to speak are speaking and being courteous in interactions with other students and the professor. Failure to abide by these provisions in addition to those outlined in the *FMU Student Handbook* (Student Rights and Responsibilities) will result in dismissal from class and a deduction in one's final grade.

Academic Honesty

Academic dishonesty is a serious offense. Any form of dishonest behavior (e.g., cheating, plagiarism, unauthorized assistance), will result in penalties such as a failing grade on an assignment or failure in the course, depending on the nature of the offense. For more information about the FMU Honor Code, see the FMU Student Handbook. If you are ever unsure if your work may be in conflict with this Honor Code, you can always ask me for help without penalty.

Disability Services Statement

If you have a disability that qualifies you for academic accommodations, please provide a letter of verification from the Office of Counseling and Testing. Please provide this letter at least one week before accommodations are needed. Accommodations can only be provided for students documented to be in need of such alterations through the FMU Counseling and Testing Office.

PSA on Expected Workload of College Courses

- For every one credit hour in which you enroll in a college course, you will spend approximately two to three hours outside of class studying.
- Therefore, to help determine the course load most appropriate for you, use the formula:
- $3 \text{ credit hours (1 course)} = 3 \text{ hours in class per week} = \underline{6-9 \text{ hours study time per week}}$.

Keys to Success

1. Ask Questions
2. Do your homework (and more!). In addition to completing your assigned homework, you should practice even more. This testing of your knowledge with a variety of problems is the best way to learn, particularly in statistics. You can find additional practice problems in your text. Also, you can use the companion website for the text which includes chapter quizzes, flashcards, and videos. Further, sometimes I will post additional practice worksheets on blackboard.
3. Remember this is just like any other class. No student is just “not a math person.” Anyone can be successful in this course if you put in the appropriate time and effort.
4. **Come meet with me**. If you are having difficulty or need help with anything in the course, meet with me. The sooner the better. The longer you wait, the less likely it is that I will be able to help you.

Schedule of Topics and Assigned Readings: This is only a rough outline and it will vary for a number of reasons. However, test dates are fixed and will not vary unless there are *truly* exceptional circumstances.

All homework is due before 11:59PM on due date.

Weekly Readings	Date	Quiz/Assignment**	Topic
Ch 1	Jan. 10		Methods, Types of Statistics
	Jan 12	Homework 1 Due 1/12	
Ch 2	Jan 17	Quiz 1	Measures of Central Tendency
		Homework 2 Due 1/19	
	Jan 19 No Class		
Ch 3	Jan 24	Homework 3 Due 1/25	Variability
	Jan 26		
Ch 4 & 6	Jan 31	Quiz 2	Frequency Distributions, Reliability & Validity
		Homework 4 Due 1/31	
	Feb 2	Exam 1 (ch. 1, 2, 3, 4, 6)	
Ch 7	Feb 7		Hypotheses , probability
		Homework 5 Due 2/8	
	Feb 9	Quiz 3	
Ch 8	Feb 14		z-scores
		Homework 6 Due 2/15	
	Feb 16		
Ch 9	Feb 21		z-test
		Homework 7 Due 2/22	
	Feb 23	Quiz 4	
Ch 10	Feb 28		Hypothesis Testing
		Homework 8 Due 3/1	
	Mar 2		
Ch 11	Mar 7	Exam 2 (ch. 7, 8, 9, 10)	
	Mar 9		t-test
Ch 12	Mar 14 & 16 Spring Break		
	Mar 21		
		Homework 9 Due 3/22	
	Mar 23	Quiz 5	Paired t-test
Ch 13	Mar 28		ANOVA
		Homework 10 Due 3/29	
	Mar 30	Quiz 6	
	Apr 4		
		Homework 11 Due 4/5	
	Apr 6 PROCTOR	Exam 3 (ch 11, 12, 13)	
Ch 14	Apr 11		Factorial ANOVA
	Apr 13	Homework 12 Due 4/13	
Ch 15 & 16	Apr 18	Quiz 7	Correlation
	Apr 20	Homework 13 Due 4/22	Linear Regression
	May 2 11:45-1:45	Final Exam (ch 14, 15, 16)	