

**University of North Texas at Dallas**  
**Spring 2015**  
**SYLLABUS**

<b>PSYC 3210: Statistics in Psychology; 3 Hrs</b>			
<b>Department of</b>	<b>Sociology &amp; Psychology</b>	<b>School of</b>	<b>Liberal Arts &amp; Sciences</b>
<b>Instructor Name:</b>	Mario P. Casa de Calvo, Ph.D.		
<b>Office Location:</b>	DAL2 257		
<b>Office Phone:</b>	972.338.1321		
<b>Email Address:</b>	<a href="mailto:mario.casadecalvo@untdallas.edu">mario.casadecalvo@untdallas.edu</a>		
<b>Office Hours:</b>	M & W from 3:00 – 5:00; T & TR from 10:00 – 12:00; by appointment		
<b>Classroom Location:</b>	DAL2 338		
<b>Class Meeting Days &amp; Times:</b>	MW 10:00am-11:20am		
<b>Course Catalog Description:</b>	This course covers the principles and concepts for the use of statistics in the social and behavioral sciences. It will cover descriptive statistics, inferential statistics, and sampling, such as measures of central tendency, t-tests, linear regression, simple random sampling, and stratified sampling.		
<b>Prerequisites:</b>	PSYC 3200		
<b>Required Text:</b>	<p>Levin, J., Fox, J.A., &amp; Forde, D. R. (2010). Elementary Statistics in Social Research (11th Edition). Boston, MA: Allyn and Bacon. ISBN: 9780205570690</p> <p><b>*Note: if you have a different edition of the text please notify me to make sure that your text will satisfy the requirements of the course</b></p> <p><b>**I will provide all other reading material in advance either electronically or in hardcopy in class</b></p> <p><b>On Readings in General:</b></p> <ul style="list-style-type: none"> <li>• You are responsible for completing the readings for the day they are assigned and come to class prepared to discuss them.</li> </ul>		
<b>Access to Learning Resources:</b>	<p>UNT Dallas Library:  phone: (972) 780-3625;  web: <a href="http://www.unt.edu/unt-dallas/library.htm">http://www.unt.edu/unt-dallas/library.htm</a></p> <p>UNT Dallas Bookstore:  phone: (972) 780-3652;  e-mail: <a href="mailto:1012mgr@fhcg.follett.com">1012mgr@fhcg.follett.com</a></p>		
<b>Course Goals or Overview:</b> The goals of this course are as follows -			
	<ol style="list-style-type: none"> <li>1. Students will be able to describe key concepts, principles, and overarching themes in psychology, and will be able to describe applications of psychology.</li> <li>2. Students will be able to use scientific reasoning to interpret psychological phenomena, engage in innovative and integrative thinking and problem solving, and interpret, design, and conduct basic psychological research.</li> </ol>		
<b>Learning Objectives/Outcomes:</b> At the end of this course, learners will be able to:			
1	Compute and understand the measures of central tendency and variability.		
2	Understand and compute inferential statistical measures.		
3	Understand and compute various measures of associations.		
4	Demonstrate an understanding of the basic principles of linear modeling in Analysis of Variance and regression.		
5	Demonstrate critical thinking skills.		
6	Apply Humanistic principles to group-centered, intellectual exchanges and tasks.		

## Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class.

### Week-by-Week Course Outline

#### **Week 1:** January 21

- Topics: 1. Introduction to the course  
2. Preview of some mathematical rules  
Reading: Levin & Fox, Chapter 1

#### **Week 2:** January 26-28

- Topics: 1. Research methods and measurement scale  
2. Frequency distribution of nominal data  
Reading: Levin & Fox, Chapters 1 & 2

#### **Week 3:** February 2-4

- Topics: 1. Proportions, percentages, rates and ratios  
2. Frequency distribution of ordinal and interval data  
Reading: Levin & Fox, Chapter 2  
**Homework: Assignment # 1 is given.**

#### **Week 4:** February 9-11

- Topics: 1. Cross-tabulation and graphic presentation  
2. Central tendency  
Reading: Levin & Fox, Chapter 2 & 3  
**Homework: Assignment # 1 is due.**

#### **Week 5:** February 16-18

- Topics: 1. The concept and measures of variability  
2. Computation of standard variation  
Reading: Levin & Fox, Chapter 4  
**Homework: Assignment # 2 is given.**

#### **Week 6:** February 23-25

- Topics: 1. Central tendency and variability reviewed  
2. Basics of probability theory  
3. The concept of normal distribution  
**Homework: Assignment # 2 is due.**  
**Exam I: Chapter 1-4 and class notes.**

#### **Week 7:** March 2-4

- Topics: 1. Basics of probability theory (2)  
2. The application of normal distribution  
Reading: Levin & Fox, Chapter 5  
**Homework: Assignment # 3 is given.**

#### **Week 8:** March 9-11

- Topics: 1. Population and sample: The concept of sampling  
2. The theory of probability sampling  
Reading: Levin & Fox, Chapter 6  
**Homework: Assignment # 3 is due.**

#### **Week 9:** March 16-18: No Classes – SPRING BREAK

**Week 10:** March 30- April 1

- Topics:1. The use of normal distribution in probability sampling  
2. Hypotheses and levels of significance  
3. Hypothesis testing: Differences between means

Reading: Levin & Fox, Chapter 6 & 7

**Homework: Assignment # 4 is given.**

**Week 11:** April 6-8

- Topics:1. Procedures of hypothesis testing  
2. Hypotheses and levels of significance  
3. Hypothesis testing: Differences between means

Reading: Levin & Fox, Chapter 7

**Homework: Assignment # 4 is due.**

**Week 12:** April 13-15

- Topics:1. Analysis of Variance: Logic  
2. Analysis of Variance: Procedures  
3. Analysis of Variance: Practice

Reading: Levin & Fox, Chapter 8

**Homework: Assignment # 5 is given.**

**Week 13:** April 20-22

- Topics:1. Analysis of Variance: Summary  
2. Nonparametric test of significance: Chi-square test

Reading: Levin & Fox, Chapters 8 & 9

**Homework: Assignment # 5 is due.**

**Exam II: Chapter 5 – 8 and class notes.**

**Week 14:** April 27-29

- Topics:1. The concept of correlation  
2. The computation of correlation  
3. Regression: The basic concepts  
4. Regression: The model

Reading: Levin & Fox, Chapters 9 & 10

**Homework: Assignment # 6 is given.**

**Week 15:** May 4-6

- Topics:1. Regression: The interpretation

Reading: Levin & Fox, Chapter 11

**Homework: Assignment # 6 is due.**

**Exam III (Final): Wednesday, May 13, 2015 from 10:00am - Noon**

## Course Evaluation Methods

### Course Requirements and Evaluation

You are required to attend class on a regular basis, complete homework assignments on time, and take in-class examinations. There will be six (6) homework assignments, and three (3) in-class exams.

**Please note that for both homework assignments and in-class exams, you need to have a quality scientific calculator.**

For homework assignments, there will be roughly one assignment every two weeks. Each time an assignment is given, you are to turn in the finished homework within one week, as we will discuss the assignment in detail in class. **Promptness and performance** are the two main factors that determine your grade on homework assignments.

For in-class examinations, the first two exams will NOT be cumulative. However, approximately 25% of the third (final) exam may consist of general items found throughout the course. The exams will consist of both multiple choice and problem-solving questions.

#### **Grading Matrix:**

<b>Instrument</b>	<b>Value (points or percentages)</b>	<b>Total</b>
<b>Homework Assignments</b>	<b>6 assignments worth approximately 20 points each</b>	<b>120</b>
<b>Exams</b>	<b>3 exams at 100 points each</b>	<b>300</b>
<b>In-Class Participation</b>	<b>Group Discussions, Group Activities, etc.</b>	<b>50</b>
<b>Total:</b>	<b>100%</b>	<b>470</b>

#### **Grade Determination**

**A = 423 – 470 pts; i.e., 90% or better**

**B = 376 – 422 pts; i.e., 80 – 89 %**

**C = 329 – 375 pts; i.e., 70 – 79 %**

**D = 282 – 328 pts; i.e., 60 – 69 %**

**F = 281 pts or below; i.e., less than 60%**

## University Policies and Procedures

#### **Students with Disabilities (ADA Compliance):**

*The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (i.e., ADA). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2 or call Laura Smith at 972-780-3632.*

#### **Student Evaluation of Teaching Effectiveness Policy:**

*The Student Evaluation of Teaching Effectiveness (i.e., SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.*

#### **Assignment Policy:**

*No extensions are given, unless a legitimate excuse is received well before the due date. For illness or injury a doctor's note is required. An unexcused late assignment will result in an automatic 10 point deduction and an additional 5 point deduction for each day after that.*

#### **Exam Policy:**

*Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook). Note: If you come in late for an exam and another student has already turned in a completed exam, you cannot take the regular exam.*

### **Academic Integrity:**

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity at <http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic%20Integrity.pdf> for complete provisions of this code.

### **Bad Weather Policy:**

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website [www.unt.edu/dallas](http://www.unt.edu/dallas). Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

### **Classroom Policies**

1. Since discussion is an essential part of this course, please come to class prepared and on time.
2. Please turn off your cell phones and pagers.
3. Do not come into class late or leave early.
4. You are responsible for tracking your own grade progress (see course requirements and grading scheme to help you keep track of available points). If you have questions about your grade come to office hours, make an appointment, or contact me via email. Do not make specific inquiries about your grade in class.
5. No late work will be accepted unless you have a valid, documented excuse (documented illness or death in the family). If you miss an assignment and you have a valid, documented excuse, notify me as soon as possible via phone or email so we can arrange a reasonable time for you to make up the missed assignment.
6. All work must be turned in during class. I will not accept emailed work unless you have a valid, documented excuse.

### **Attendance and Participation Policy:**

The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience, and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible for notifying the instructor if they will be missing class, and they must share their reason for missing class. Students are also responsible for making up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes if class is missed.

To get the most out of this class your attendance is required.

- An attendance sign in sheet will be circulated at the beginning of each class. Sign your name in the sheet to document your attendance. Failure to sign the sheet will be considered an absence.
- Students are expected to attend all scheduled meetings of this class. Students are also expected to be on time for all scheduled class meetings. Students who come to class late will be counted as absent. **After 3 absences, 5 overall points will be deducted for every class period missed.**
- If you have a documented excuse for your absence let me know as soon as possible and bring it to class. A valid, documented excuse consists of a doctor's note documenting your illness or death in the family.

### **Diversity/Tolerance Policy:**

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Office of Student Life as the instructor deems appropriate.

**\*I reserve the right to alter the content of this syllabus at any time.**