PSYC 2443-001 **Research Design and Statistics I** **Fall 2013**

Lecture:
Instructor: Dr. Madeline Rex-Lear
Class room: 118 Life Science (Lecture); 318 LS (Lab)
Class hours: Mon/ Wed 3.00-4:20pm
Office hours: W 10:00am-12:00pm or by appointment

Lab Coordinator:
Coordinator: Michael Natishyn
Email: michael.natishyn@mavs.uta.edu
Office: LS 536
Office hours: Tuesday 2.pm-3pm or by appt

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Your Lab Teaching Assistant
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Lab: Five (5) lab sections are available. You must be registered in lecture (PSYC 2443-001) and one lab section (PSYC 2443-002, 003, 004, 005, or 006) concurrently. Please see the **lab schedule** for further information.

Course Information

Course description: PSYC 2443. RESEARCH DESIGN AND STATISTICS I (3-2) 4 hours credit. Theoretical and practical approaches to research methodology, statistical analyses and reporting of research. Prerequisites: PSYC 1315, MATH 1302 (or equivalent), ENGL 1302 and completion of the computer competency requirement.

A note on prerequisites: To perform well in this class, you will need to have fulfilled your computer competency requirements as well as your Algebra and English Critical Thinking, Reading and Writing courses. PSYC 2443 is writing and "information-intensive".

Course goals: This course consists of learning a variety of methods and procedures commonly used to conduct psychological research, analyzing the data collected in such research, and communicating the research results to the scientific community. Specific goals as outlined in the **APA Assessment Cyberguide** are appended to this syllabus.

Learning objectives: Objectives are provided for each of the three course modules at the bottom of each page of the schedule grid.

Course structure: The course is divided into 3 modules: Module 1 spans weeks 1 through 5; Module 2, weeks 6-10; and Module 3, weeks 11-15. Exams (lecture and lab) are given at the end of each module. There is no comprehensive final exam. This is a Blackboard assisted course so you will need to be proficient in the use of Blackboard to perform well.

Required texts and course materials: (Note: Retain these texts for PSYC 2444 and advanced Psychology electives.)

- There is a customized set of texts for this course, bundled together to save you money.
  There are 3 items in the bundle:
  1) Jackson/Mitchell/Jolley/Levine 4th edition (2011). *Research methods and statistics: A critical thinking approach* (customized edition). Belmont, CA: Thomson Wadsworth. ISBN 13: 978-1-133-23361-9.
  2) Jackson *Statistical Tables*
  3) Szuchman (2008). *Writing with Style: APA Style Made Easy with InfoTrac* American Psychological Association (2009).

  Recommended: Publication Manual of the American Psychological Association (6th edition). Washington, D.C.: APA. (ISBN 13: 9781433805615)
- A calculator with statistical functions (programmable calculators will not be permitted)
- A 3 inch (minimum), 3-ring binder which will serve as your portfolio (optional)
- This course will be computer/internet intensive. However, you do not need to own a computer to participate effectively in the class. However, you will need to access and use the computers available to you on campus on routine bases that have SPSS access.

Required journal articles: Articles will be available on electronic reserve through BlackBoard.

Optional resources:
- www.apastyle.org (but note that the 2009 Publication Manual will be used for all grading)
- See the publisher's Web site for workshops at http://www.wadsworth.com/psychology_d/templates/student_resources/workshops/index.html

Assignments and exams:
Lecture: In-class exercises may be given but will not count toward final grade.
The lecture grade will be based on three exams adding up to 210 points. Each exam will be broken into a multiple choice part given in the lecture (50 points) plus the short answer/practical (statistical exercise) part given in the lab (20 points). Exam questions will be drawn from required reading, lecture material, and class activities. If you are late on the day of the exam you will NOT be permitted to take the exam if any class member has completed the exam and left the room. Any make-up exams will be given at the discretion of faculty (See the **lecture schedule** for exam dates.)

Lab: Exercises, research papers, and other assignments will be scheduled throughout the term. Unless otherwise instructed, all assignments must be typewritten and in compliance with APA formatting. (See the **lab schedule** for further details.)

Attendance:
Lecture: *Regular attendance is expected and will be taken on all non-test days starting with the fourth lecture – it counts for **10** points of your grade*. Absences that generally meet faculty standards include: severe illness; death in the immediate family; court appearances; and traffic delays that are unavoidable. Absentees will not be provided with lecture notes, outlines or other materials from classes missed. No make-up exam will be given unless documentation is received for a University-approved absence and are at the discretion of faculty approval.

Lab: Lab attendance is *mandatory. Lab attendance will count **10** points toward final grades.* The information you receive in the lab sections is necessary to aid you in writing papers and doing homework assignments. The information obtained will carry over from the first semester into the second semester. Lab attendance is crucial. Students **arriving more than 10 minutes late to lab will be counted as absent.**

Make-up work: Make-up assignments and exams will be granted only for University-approved, documented absences. You must make faculty and Lab TAs aware of your absence within 5 working days or you will not be permitted to make-up any missed work.

Extra credit: Research Participation through SONA will grant up to **5** extra credit points for the lecture portion. (You may participate in additional research voluntarily. To gain these Extra Credit points you MUST be enrolled in SONA. Details are available on the psychology website at http://www.uta.edu/psychology/. Also you may not use the same experiment for SONA credits in more than one course at a time.)

Grading: You will receive one course grade for your combined performance in the lecture and laboratory.
(Note: while the short answer parts of the tests are given during labs, they are part of the *lecture* grade!)

Examples of the rubrics we will use for scoring will be provided on BlackBoard.
Five points/day (i.e. each 24-hour period) will be deducted from your final score for any project that is received late.

Be sure to check the schedule below for interim evaluation dates!

Point Distribution and Grading Policy

LECTURE POINTS		LAB POINTS		Total possible points = 445		
				Letter	%	# of Points
Exam 1 (lecture)	50 Lab 20	Manuscript	50			
Exam 2 (lecture)	50 Lab 20	Constructing APA manuscript	15	A	89.5-100%	394-440
Exam 3 (lecture)	50 Lab 20	Embedded Assignments	145	B	79.5-89.4%	350-393
Attendance	10	Attendance	10	C	69.5-79.4%	306-349
Extra credit	5					
Total Lecture	**225**	**Total Lab**	**220**			

Students must receive a passing grade (a "C") in both lecture and lab (153 points out of 220 possible points or 69.5% in each section) to pass the course and become eligible to enroll in upper-level courses that have 2444 as a prerequisite.

Important lab notes:

Review: Given the "hands on" nature of instruction, Lab Attendance is crucial to your success in this course. You must attend every lab meeting. The information you receive in the lab sections is necessary to aid you in writing papers and doing homework assignments. The information obtained will carry over from the first semester into the second semester.

1. Assignments are due at the beginning of the lab meeting, within the first 10 minutes of lab. Failure to hand in assignments on time will result in a grade of zero for that assignment.

2. If you are more than 10 minutes late, you will be counted as absent, losing attendance points; additional points may be deducted from your assignment.

Important dates: (These are also listed on the UTA calendar.)

September 2:	Labor Day holiday
September 9 :	Census Date
October 30:	Last day to drop
November 28-29:	Thanksgiving holidays
December 4:	Last class day for the University (Note: All work must be completed by this date.)

From the UT Arlington Undergraduate Catalog: Student Grievance Procedures Related to Grades: In attempting to resolve any student grievances regarding grades, it is the student's obligation first to make a serious effort to resolve the matter with the individual with whom the grievance originated. Individual course instructors retain primary responsibility for assigning grades. The instructor's judgment is final unless compelling evidence shows discrimination, preferential treatment or procedural irregularities. For further information see: http://www.uta.edu/catalog/general/academicreg

Student Support Services:

- **Library information** can be obtained through Andy Herzog, Reference and Instruction Librarian. Please contact him by phone (817.272.7517) or by email (amherzog@uta.edu). You will find useful information for psychology at http://libguides.uta.edu/psychology or simply go to the library (www.uta.edu/library) and select Subject Guides and select Psychology.
- **Other** services can be obtained from the University. The University supports a variety of student success programs to help you: learning assistance; developmental education; advising and mentoring; admission and transition; and information about federally funded programs. Students seeking assistance with academic, personal or social problems should contact the Office of Student Success Programs at 817.272.6107 or see http://www.uta.edu/uac/studentsuccess-home/ Many students formerly enrolled in this class have found this web page to be very useful for a variety of services!

Drop for non-payment of tuition: If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office. You may not continue to attend class until your Enrollment Loan has been applied to outstanding tuition fees.

Academic dishonesty: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. Any form of academic dishonesty will be reported. *"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that is attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."* (Regents' Rules and Regulations, Part One, chapter VI, Section 3, Subsection 3.2, Subdivision 3.22.) All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation, reference to Public Law 93112—The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled, Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As required by law, we will provide

reasonable accommodations to students with disabilities, so as not to discriminate on the basis of that disability. However, the student is responsible for informing faculty at the beginning of the semester of a disability requiring special accommodation and providing authorized documentation through designated administrative channels.

Bomb threats: If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations or tests caused by the bomb threat. Alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

E-Culture Policy: The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email. All students are assigned an email account and information about activating and using it is available at www.uta.edu/email. New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly. *In this course, please communicate with the instructor, the tutor and teaching assistants by assigned emails*

Student Evaluation of Teaching: Online evaluation forms provided by the University will be used for student course evaluation. Students will receive notification of the opportunity to complete evaluation forms via University email. I strongly encourage you to complete these evaluations, they are important, and do matter.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

PSYC 2443 SCHEDULE GRID **Lecture Schedule** **Lab Schedule**

Wk	Date	Lecture Topic	Reading Assignments	Date: (Write in)	Lab Exercises	Assignment Due
1	M 8/26	Course overview Thinking like a scientist	**Jackson et al.Ch. 1**		Using Blackboard Overview: Research compliance, IRB & IACUC; IRB protocols	Complete online pretesting on Sona Handout: Introduction of Psychology Research Requirement
	W 8/28	Pre-testing for exp participation Using the library	Szuchman Ch. 1 and 2		Overview: Ch 1	**Daily attendance 1pt per day (10pts) Beginning week 1**
2	M 9/2	***Labor Day holiday—no class***			Library assignment 1: Becoming familiar with the library Library assignment 2: Search exercise Article retrieval Exercise APA Formatting: Title Page Article 1 Exercise: Defining variables - in class participation	Jackson Chapter 1 exercises (4 questions--5 pts) Quiz on IRB & Protocols (10 pts)
	M 9/4	Ethics Defining Variables & Scales of Measurement	**Jackson et al.Ch. 2** **Jackson et al.Ch. 3** Szuchman Ch. 9			
3	W 9/9	Frequency Distributions **Daily attendance 1pts per day (10pts) Beginning this week**	**Jackson et al. Ch. 5** Szuchman Ch. 4		1. Demonstration: Frequency distributions Using Excel & SPSS: Bar -practice 2. APA Formatting: Method & Results 3. Overview: Results section in Article 2	Article 2 Retrieval Quiz & Ethics (10 pts) Library assignment 1 & 2 (20 pts. total)
	W 9/11	Descriptive Methods of Research	**Jackson et al.Ch. 4** Szuchman Ch. 5			
4	M 9/16	Measures of central tendency Measures of variation	**Jackson et al. Ch. 5**		Exercise: Computing means, medians, & modes Understanding measures of variation Exercise: Jackson Chapter 5 – part 2 - Handout Variation (10 pts -) in lab Exercise Z scores/distribution in lab (4 pts)	Jackson Ch 5 Homework –part 1 (5 points)
	W 9/18	Types of Distribution *z*-scores	**Jackson et al. Ch. 5**			
5	M 9/23	Catch up Day Review for Exam #1			Library assignment 3: Psychology careers Overview: Helping behavior (Altruism) experiment	
	W 9/25	**Exam #1 (part 1 = Multiple choice)**			**Exam #1 (part 2 = word problems)**	

Learning Objectives for Module I. At the end of this module, students should be able to:

(1) Describe areas of psychological research and the differences between basic and applied research; research conducted in naturalistic and laboratory settings
(2) Identify and compare descriptive and predictive methods as well as the explanatory method
(3) Describe ethical standards for research using human participants and animal subjects
(4) Use resources in the library to locate and confirm information, and understand APA writing requirements
(5) Explain the following concepts: scales of measurement, reliability, validity, operational definitions
(6) Compute standard scores and measures of central tendency and variation

Wk	Date	Lecture Topic	Reading Assignments	Date:	Lab Exercises	Assignment Due
6	M 9/30	Review of Exam #1 Probability	Review Szuchman Ch. 5 Szuchman Ch. 8		Results section: stat and graph presentation APA Formatting: Graphs and References & where do they belong?	**Constructing: Title Page/Method & Results Due (9 pts)**
	W 10/2	Probability	**Jackson et al.Ch. 7**		Probability Exercises Review/Practice SPSS for quiz	
7	M 10/7	Binomial distribution	**Jackson et al.Ch. 5 Addendum**		Exercise: How binomial distributions approximate normal distribution About data collection and management:	Practical Quiz 1 on SPSS & Excel (20 pts)
	W 10/9	Correlation & prediction Correlation & regression designs	**Jackson et al.Ch. 6**		Helping behavior experiment – create protocol	Probability Homework (14 pts)
8	M 10/14	Correlation	**Jackson et al.Ch. 6** Review Szuchman Ch. 2		Computing correlations and inter-rater reliabilities (SPSS) Graphing regression lines	Binomial Distribution Homework (6 pts)
	W 10/16	Regression	**Jackson Ch. 6**		Assignment: Constructing the manuscript - rubric Excel: Scatterplots	**Constructing: Graph and References Due 6 pts**
9	M 10/21	Scales of measurement review	**Jackson et al.Ch. 3** Review Szuchman Ch. 3, 6, & 7		APA Formatting: Intro, Discussion, & Abstract Introduction section: read and check citations	Jackson Chapter 3 & 6 exercises Correlation & Inter rater reliability Handout (15 pts)
	W 10/23	Catch Up Day Review for Exam #2			Library assignment 4: Checking citations from the literature **Review for Exam 2**	Data summary from experiment due
10	M 10/28	**Exam # 2 (part 1 = Multiple choice)**	`		**Exam #2 (part 2 = Word problems)**	
	W 10/30	Review of Exam #2 Review Sampling distribution *z* scores	**Jackson et al.Ch. 7**		**Project Data complete** Exercise: Understanding standard scores Article 3 In-class discussion – APA/ Introduction APA handout – Introduction questions	

Learning Objectives for Module 2. At the end of this module, students should be able to:

(1) Identify various distributions, then organize and manage data in frequency and class interval distributions
(2) Discuss the strengths of correlations and interpret scatterplots
(3) Differentiate between probability and nonprobability sampling and the various subtypes of sampling
(4) Use Excel to graph data and construct tables
(5) Calculate correlation coefficients and perform analyses on various types of regression curves

Wk	Date	Lecture Topic	Reading Assignments	Date:	Lab Topic	Assignment Due
11	M 11/4	Chi-Square Tests Wilcoxon's Test	**Jackson et al Ch. 13** Review Szuchman as needed		Review of helping behavior experiment Using Chi-square and Wilcoxon's tests In class practice Chi Square with SPSS Discussion section: read and revise	APA Introduction Handout (6 pts) **Constructing the Experiment manuscript – Draft (10 pts)**
	W 11/6	Reliability & Validity	**Jackson et al. Ch. 3** Szuchman Ch. 10			
12	M 11/11	Hypothesis Testing I	**Jackson et al.Ch. 7**		Hypothesis testing; Results section; 1 and 2-tailed tests Practice SPSS Abstract and key words: read and revise Discuss Final Manuscript	Jackson Chapter 13 exercises Handout (20 points)
	W 11/13	Power and Effect size Confidence Intervals	**Jackson et al. Ch. 7**			
13	M 11/18	Hypothesis Testing II	**Jackson et al. Ch. 7** Szuchman Ch. 10		Confidence Intervals In class exercise Power Curves Recap Reliability/Validity Exam Review – How to with SPSS	**Constructing the Experiment manuscript - Final (40 pts)** **Due <u>Wednesday 5pm</u> via Blackboard (no exceptions)**
	W 11/20	Hypothesis Testing II (cont.) Review for Exam # 3	**Jackson Ch. 7 review**			
14	M 11/25	**Exam # 3 (part 1 = Multiple choice)**			**No lab meetings this week - Thanksgiving**	
	W 11/27	What's' next?				
15	M 12/2	Go over exam 3 Review for Lab Exam			**No lab meetings**	
	W 12/4	**Exam #3 (part 2 = Word Problems)**	**<u>IMPORTANT:</u>** **This lab exam will take place in class (LS118) at regular class time NOT in the lab**			
		NOTE Catch up/review days are indeed class days and you are expected to attend - we will continue class work as normal <u>Learning Objectives for Module 3</u>. At the end of this module, students should be able to: (1) Explain how Type I and Type II errors are related to hypothesis testing (2) Explain what statistical power is and how to make statistical tests more powerful (3) Differentiate between parametric and nonparametric statistics (4) Calculate and interpret Chi-square and Wilcoxon's rank-sum tests (5) Use SPSS software to test for statistical significance N.B. Learning objectives were adapted from Jackson, S. L. (2006). *Study guide for research methods and statistics* (2nd edition).				

PSYC 2443 Course Portfolio Fall 2013

According to **APA's Assessment Cyberguide for Learning Goals and Outcomes,** portfolios have a strong potential for achieving certain learning outcomes: "Explicit criteria that ask students to select "works" based on what these reveal about their research skills can provide an opportunity to evaluate the evolution of their abilities through a focused reflection on why they selected the items they did."

Q. What is a portfolio?

A. A portfolio is a collection of papers, projects, and assignments completed in classes required in the psychology major. For the student, the portfolio represents a record of development in skills and
competencies required in the major. It also represents a record of accomplishments which can be used to support applications for employment and graduate school. For the faculty, the portfolio is a source of information to determine whether the goals of the psychology curriculum are being attained.

Q. What is the purpose of keeping a portfolio?

A. A course portfolio serves primarily 3 functions:

1. A portfolio is an opportunity to integrate your notes, the text, lab assignments and other material, therefore providing an effective **study method**. Thus, you may reinforce and further develop your writing and computer skills. You are expected to retain at least information from earlier courses to later courses. In fact, by obtaining a GPA of 2.0 in PSYC 2443 and 2444, you can be cleared to enroll in upper-level laboratory courses. A course portfolio may be a very valuable resource for your future coursework.

2. A portfolio stands as an **historical record** or documentation summary of some of the content that you learned in the course. This record may help you obtain admission to the graduate program of your choice in that it may help you to write your personal statement or essay for graduate admission. It may also help you convince a potential employer of your readiness for a particular job.

3. Portfolio preparation may help you to **know yourself better** and to define more clearly your personal and professional goals. Part of your portfolio will consist of reflective journaling, that is, writing down your ideas and reactions to assignments and evaluations. Except for weeks in which exams occur, we expect you to make notes weekly. Weekly notations should be made on your reflections upon your experiences as a pre-professional. Obviously, such reflective thinking may assist you in defining your strengths, weaknesses and career aspirations.

Q. How will my portfolio be evaluated?

A. Portfolios are not graded, and how you organize them will be up to you.

Adapted from **APA's Assessment Cyberguide for Learning Goals and Outcomes:**

In PSYC 2443 and 2444, we will be addressing multiple goals as outlined below by the American Psychological Association (APA).

KEY:

PRE	Prerequisites
LEC	PSYC 2443/2444 Lecture and readings
LAB	PSYC 2443/2444 Lab and readings
EXA	PSYC 2443/2444 Examinations

Goal 1: Knowledge Base of Psychology

Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

Objective	**PRE**	**LEC**	**LAB**	**EXA**	
1.1: Characterize the nature of psychology as a discipline.	√	√	√	√	
1.2: Demonstrate knowledge and understanding representing appropriate breadth and depth in selected content areas of psychology: theory and research representing general domains, the history of psychology, relevant levels of analysis, overarching themes, and relevant ethical issues.	√	√	√	√	
1.3: Use the concepts, language, and major theories of the discipline to account for psychological phenomena.	√				
1.4: Explain major perspectives of psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural).	√				

Goal 2: Research Methods in Psychology

Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.

Objective	**PRE**	**LEC**	**LAB**	**EXA**	
2.1 Describe the basic characteristics of the science of psychology.	√	√	√	√	
2.2 Explain different research methods used by psychologists. Describe how various research designs address different types of questions and hypotheses. Articulate strengths and limitations of various research designs. Distinguish the nature of designs that permit causal inferences from those that do not.		√	√	√	
2.3 Evaluate the appropriateness of conclusions derived from psychological research. Interpret basic statistical results. Distinguish between statistical significance and practical significance. Describe effect size and confidence intervals. Evaluate the validity of conclusions presented in research reports.	√	√	√	√	
2.4 Design and conduct basic studies to address psychological questions using appropriate research methods. Locate and use relevant databases, research, and theory to plan, conduct, and interpret results of research studies. Formulate testable research hypotheses, based on operational definitions of variables. Select and apply appropriate methods to maximize internal and external validity and reduce the plausibility of alternative explanations. Collect, analyze, interpret, and report data using appropriate statistical strategies to address different types of research questions and hypotheses.		√	√	√	

Recognize that theoretical and sociocultural contexts as well as personal biases may shape research questions, design, data collection, analysis, and interpretation.					
2.5 Follow the APA Code of Ethics in the treatment of human and nonhuman participants in the design, data collection, interpretation, and reporting of psychological research.		√	√	√	
2.6 Generalize research conclusions appropriately based on the parameters of particular research methods. Exercise caution in predicting behavior based on limitations of single studies. Recognize the limitations of applying normative conclusions to individuals. Acknowledge that research results may have unanticipated societal consequences. Recognize that individual differences and sociocultural contexts may influence the applicability of research findings.		√	√	√	

Goal 3: Critical Thinking Skills in Psychology

Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.

Objective	**PRE**	**LEC**	**LAB**	**EXA**	
3.1 Use critical thinking effectively.	√	√	√	√	
3.2 Engage in creative thinking.	√	√	√	√	
3.3 Use reasoning to recognize, develop, defend, and criticize arguments and other persuasive appeals.	√	√	√	√	
3.4 Approach problems effectively.	√	√	√	√	

Goal 4: Application of Psychology

Understand and apply psychological principles to personal, social, and organizational issues.

Objective	**PRE**	**LEC**	**LAB**	**EXA**	
4.1 Describe major applied areas of psychology (e.g., clinical, counseling, industrial/organizational, school, health).	√	√	√	√	
4.2 Identify appropriate applications of psychology in solving problems, such as…	√	√	√	√	
4.3 Articulate how psychological principles can be used to explain social issues and inform public policy.	√	√		√	
4.4 Apply psychological concepts, theories, and research findings as these relate to everyday life.	√	√	√	√	
4.5 Recognize that ethically complex situations can develop in the application of psychological principles.	√	√	√	√	

Goal 5: Values in Psychology

Value empirical evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a science.

Objective	**PRE**	**LEC**	**LAB**	**EXA**	
5.1 Recognize the necessity for ethical behavior in all aspects of the science and practice of psychology.	√	√	√	√	
5.2 Demonstrate reasonable skepticism and intellectual curiosity by asking questions about causes of behavior.	√	√	√	√	
5.3 Seek and evaluate scientific evidence for psychological claims.	√	√	√	√	
5.4 Tolerate ambiguity and realize that psychological explanations are often complex and tentative.	√	√	√	√	
5.5 Recognize and respect human diversity and understand that psychological explanations may vary across populations and contexts.	√	√	√	√	
5.6 Assess and justify their engagement with respect to civic, social, and global responsibilities.	√	√	√	√	

5.7 Understand the limitations of their psychological knowledge and skills.	√	√	√	√	

Goal 6: Information and Technological Literacy

Demonstrate information competence and the ability to use computers and other technology for many purposes.

Objective	PRE	LEC	LAB	EXA	POR
6.1 Demonstrate information competence at each stage in the following process: formulating a researchable topic, choosing relevant and evaluating relevant resources, and reading and accurately summarizing scientific literature that can be supported by database search strategies	√	√	√	√	√
6.2 Use appropriate software to produce understandable reports of the psychological literature, methods, and statistical and qualitative analyses in APA or other appropriate style, including graphic representations of data.	√	√	√	√	√
6.3 Use information and technology ethically and responsibly.	√	√	√	√	√
6.4 Demonstrate basic computer skills, proper etiquette, and security safeguards.	√	√	√	√	√

Goal 7: Communication Skills

Communicate effectively in a variety of formats.

Objective	PRE	LEC	LAB	EXA	
7.1 Demonstrate effective writing skills in various formats (e.g., essays, correspondence, technical papers, note taking) and for various purposes (e.g., informing, defending, explaining, persuading, arguing, teaching).	√	√	√	√	
7.2 Demonstrate effective oral communication skills in various formats (e.g., group discussion, debate, lecture) and for various purposes (e.g., informing, defending, explaining, persuading, arguing, teaching).	√		√		
7.3 Exhibit quantitative literacy.	√	√	√	√	
7.4 Demonstrate effective interpersonal communication skills.	√	√	√		
7.5 Exhibit the ability to collaborate effectively.	√		√		

Goal 8: Sociocultural and International Awareness

Recognize, understand, and respect the complexity of sociocultural and international diversity.

Objective	PRE	LEC	LAB	EXA	
8.1 Interact effectively and sensitively with people from diverse backgrounds and cultural perspectives.	√	√	√	√	
8.2 Examine the sociocultural and international contexts that influence individual differences.	√	√	√	√	
8.3 Explain how individual differences influence beliefs, values, and interactions with others and vice versa.	√	√	√	√	
8.4 Understand how privilege, power, and oppression may affect prejudice, discrimination, and inequity.	√	√			
8.5 Recognize prejudicial attitudes and discriminatory behaviors that might exist in themselves and others.	√	√	√	√	

Goal 9: Personal Development

Develop insight into their own and other's behavior and mental processes and apply effective strategies for self-management and self-improvement.

Objective	PRE	LEC	LAB	EXA	
9.1 Reflect on their experiences and find meaning in them.	√				
9.2 Apply psychological principles to promote personal development.	√				

9.3 Enact self-management strategies that maximize healthy outcomes.	√				
9.4 Display high standards of personal integrity with others.	√	√	√	√	

Goal 10: Career Planning and Development

Pursue realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.

Objective	**PRE**	**LEC**	**LAB**	**EXA**	
10.1 Apply knowledge of psychology (e.g., decision strategies, life span processes, psychological assessment, types of psychological careers) to formulating career choices.	√				
10.2 Identify the types of academic experience and performance in psychology and other coursework that will facilitate entry into the work force, post-baccalaureate education, or both.	√	√			
10.3 Describe preferred career paths based on accurate self-assessment of abilities, achievement, motivation, and work habits.	√				
10.4 Identify and develop skills and experiences relevant to achieving selected career goals.	√	√	√	√	
10.5 Demonstrate an understanding of the importance of lifelong learning and personal flexibility to sustain personal and professional development as the nature of work evolves.	√				