

**STAT 217 - Introduction to Statistical Concepts and Methods**

**Spring 2009**

**1. Catalog Description**

**STAT 217 Introduction to Statistical Concepts and Methods (4) GE B1**

Sampling and experimentation, descriptive statistics, confidence intervals, two-sample hypothesis tests for means and proportions, Chi-square tests, linear and multiple regression, analysis of variance. Substantial use of statistical software. Not open to students with credit in STAT 218 or STAT 221 or STAT 251. 4 lectures. Prerequisite: Passing score on the ELM examination, or an ELM exemption, or credit in Math 104.

**2. Required Background and/or Experience**

Passing score on the ELM examination, or an ELM exemption, or credit in Math 104.

**3. Expected Outcomes**

The student should be able to:

- a. Design a data collection scheme based on simple random sampling or simple experimental designs;
- b. Summarize data using graphical and numerical techniques;
- c. Construct and interpret confidence intervals for one sample and two sample differences between means and between proportions;
- d. Conduct one-sample and two-sample tests of significance for means and proportions;
- e. Calculate and interpret measures of association and perform Chi-square test for independence;
- f. Use simple linear and multiple regressions to describe relationships between variables; and
- g. Perform analysis of variance tests for completely randomized designs.

**4. Suggested Texts**

Devore, J. and Peck, R., *Statistics: The Exploration and Analysis of Data*, 5<sup>th</sup> ed., Cengage, 2004.

Moore, D., *The Basic Practice of Statistics*, 5<sup>th</sup> ed., Freeman, 2009.

Rossman, A., and Chance, B., *Workshop Statistics, Discovery with Datab*, 3<sup>rd</sup> Ed., Wiley, 2008.

Sanders, D., and Smidt, R., *Statistics: A First Course*, 6<sup>th</sup> ed., McGraw-Hill, 2000.

**5. Minimum Student Materials**

Calculator for student use in preparing assignments and taking exams. Access to statistical software.

**6. Minimum University Facilities**

Chalkboard for instructional use, overhead projector.

7. **Expanded Description of Content and Method**

<b><u>CONTENT</u></b>	<b><u>NUMBER OF LECTURES</u></b>
<b>A. COLLECTING DATA</b>	4
1. Sampling (simple random, stratified)	
2. Experimentation (CRD, matched pairs)	
3. Causation versus association	
<b>B. TYPES OF VARIABLES</b>	1
1. Categorical, numerical	
<b>C. DESCRIPTIVE STATISTICS</b>	
1. Graphical Summaries	3
a. Univariate	
b. Bivariate	
2. Numerical Summaries	4
a. Measures of central tendency	
b. Measures of variability	
c. Measures of relative position	
d. Empirical Rule	
<b>D. INTRODUCTION to MINITAB or other software</b>	1
<b>E. ESTIMATION</b>	5
1. Logic and interpretation of confidence intervals	
2. One sample intervals for population mean and proportion	
3. Two sample intervals for the difference between means	
4. Two sample intervals for the difference between proportions	
<b>F. TESTS OF SIGNIFICANCE</b>	8
1. Logic and interpretation of tests of significance	
2. One sample tests about population means and proportions	
3. Two-sample tests for means and proportions	
<b>G. EXPLORING ASSOCIATION</b>	3
1. Chi-Square Test for Independence	
2. Pearson's correlation coefficient	
<b>H. SIMPLE AND MULTIPLE LINEAR REGRESSION MODELS</b>	5
1. Fitting a model using least squares	
2. Interpretation of computer output	
3. Model evaluation	
<b>J. ANALYSIS of VARIANCE</b>	2
1. One-way AOV for a Completely Randomized Design	
<b>TOTAL</b>	<b>36</b>

**METHOD**

Development of fundamental concepts and methods. Statistical analysis of actual problems.

8. **Method of Evaluating Outcome**

By one or more of assignment of exercises, projects, and examinations.

## PSY 256 DEVELOPMENTAL PSYCHOLOGY

**Course Description:** This course is an overview of the biological, psychological, and social changes that occur as individuals move across the lifespan, from conception to death. You will learn that these changes are dynamically interrelated and incredibly diverse, often depending on factors such as gender or culture. The main objective of the course is to help you to acquire an understanding of the process of human development through presentation of scientific research and theory as well as through application and critical thinking activities. *Prerequisite: PSY 201 or 202.*

### Required Readings:

Berger, Kathleen Strassen (2010). *Invitation to the Life Span*. New York: Worth Publishing.

### Instructional Format:

1. Lectures and discussions based on text and other assigned readings.
2. Small and whole group discussions
3. Classroom activities
4. Independent and/or group projects

### Course Requirements:

**Participation/In-class Assignments (10%)** – Because lectures will cover material beyond that which is found in the text book, attendance is essential. Various in-class assignments and activities will be given throughout the quarter. These activities and assignments will focus on the discussion and application of theory, research, concepts and terms. If you miss a class, it is your responsibility to find out what assignment may be due. If you miss an in-class assignment/activity, you cannot make it up unless you provide documentation of extenuating circumstances within one week of the absence.

**Exams (10% each/20% total):** Two exams will be given in the quarter consisting of multiple-choice and short response questions. Each exam will cover material presented in class lectures (this includes videos, demonstrations, readings, handouts, etc.).

### Social Media Evaluation (20%):

Working in small groups, you will select a social media platform of your choice (Twitter, Facebook, tumblr, Pinterest, Youtube, etc.) and evaluate the influence of that platform on society's views of one of the following: gender roles, body image, sexuality, sexual orientation, aging, parenting, racial identity, or socio-economic status (assignments will be given out in class so as to avoid duplication). Evaluations must take into account theories of development as discussed in class and in the readings. Each group will deliver a poster presentation of their evaluation. Each individual will submit a 1-2 page process paper with their individual reflections.

**Oral History (20%):** Typically, an Oral History involves interviewing a person or group to get an inside perspective into what it was like to live in a particular time or what it is like to live as the member of a particular group within a society. For this assignment, you are to interview an individual from an age, religious, socio-economic, ethnic, racial, sexual orientation, etc. group that is markedly different from your own. We will discuss in class some possible examples. Utilizing a life span perspective, shape the raw material from this interview into an essay in which you both describe and reflect upon your findings. More specifically, you will be required to (1) Transcribe the comments of the interviewee; (2) Present the experiences/perspective of the interviewee; (3) Place the interviewee's experiences/perspectives in a developmental framework; (4) describe the developmental, social, and cognitive factors which may be influencing this perspective; and (5) reflect upon your findings (5-7 pages). Oral Histories will also be presented to your peers. (For interview tips, visit: <http://ethnographymatters.net/2012/03/22/interviewing-for-introverts/> )

**Final Exam (30%):** The final exam will be comprehensive, covering the whole quarter. Unless there are extenuating circumstances, no make-up exams will be offered.

**PSY/CD 256**  
**Course Schedule**

**Week One:**

- 9/23/13      M      Introduction/Overview  
   Readings: Chapter 1 (pp. 3-22)
- 9/25/13      W      Theories in Human Development  
   Readings: Chapter 1 (pp. 23-45)

**Week Two:**

- 9/30/13      M      Prenatal Development & Birth  
   Readings: Chapter 2
- 10/2/13      W      The First Two Years  
   Readings: Chapter 3, 4

**Week Three:**

- 10/7/13      M      Cognitive Development in Infancy & Toddlerhood  
   Readings: Chapter 5  
   Goksun, et. al. (2010). Trading Spaces: Carving up Events for Learning  
   Language. *Perspectives on Psychological Science*, 5 (1), 33-42.
- 10/9/13      W      How do Children Think?  
   Readings: Chapter 7

**Week Four:**

- 10/14/13     M      A Child's Social World: Relationships & Attachment  
   Readings: Chapter 6  
   Hofer, M.A. (2006). Psychobiological Roots of Early Attachment. *Current  
Directions in Psychological Science*, 15 (2), 84-88.
- 10/16/13     W      **Exam #1**

**Week Five:**

- 10/21/13     M      Middle Childhood Psychosocial Development  
   Readings: Chapter 8
- 10/23/13     W      Gender Role Development

Readings: Chapter 6 (pp.220-224); Chapter 7 (265-266)

- Martin, C.L., & Ruble, D. (2004). Children's Search for Gender Cues: Cognitive Perspectives on Gender Development. *Current Directions in Psychological Science*, 13 (2), 67-70.

### **Week Six:**

- 10/28/13      M      Out of Home Care  
Readings: Chapter 13 (pp.482-484)
- Metzger, J. (2008). Resiliency in Children and Youth in Kinship Care and Family Foster Care. *Child Welfare*, 87 (6), 115-140.
  - Geiger, J.M., Hayes, M.J., & Lietz, C.A. (2013). Should I Stay or Should I Go? A Mixed Methods Study Examining the Factors Influencing Foster Parents' Decisions to Continue or to Discontinue Providing Foster Care. *Children and Youth Services Review*, 35, 1356-1365.

- 10/30/13      W      Adolescence: Biological & Cognitive Development  
Readings: Chapter 9
- Steinberg, L. (2007). Risk Taking in Adolescence: New Perspectives in Brain and Behavioral Science. *Current Directions in Psychological Science*, 16 (2), 55-59.

### **Week Seven:**

- 11/4/13      M      Adolescence: Identity and Intimacy  
Readings: Chapter 10
- Various Authors. (1996). Youth Voices, *Harvard Educational Review*, 66 (2), 173-197.

11/6/13      W      **Social Media Evaluation Poster Presentations and Response Papers Due**

### **Week Eight:**

- 11/11/13      M      Veteran's Day – No Class
- 11/13/13      W      Emerging Adulthood  
Readings: Chapter 11  
Arnett, J.J. (2000). Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties. *American Psychologist*, 55(5), 469-480.

**Week Nine:**

- 11/18/13      M      Adulthood  
Readings: Chapter 12
- Roisman, G.I. (2009). Adult Attachment: Toward a Rapprochement of Methodological Cultures. *Journal of the Association of Psychological Science*, 18 (2), 122-126.
- 11/20/13      W      **Exam # 2**

**Week Ten:**

- 11/25/13      M      Aging  
Readings: Chapter 14
- Nielson, L. & Mather, M. (2011). Emerging Perspectives in Social Neuroscience and Neuroeconomics of Aging. *SCAN*, 6, 149-164.
- 11/27/13      W      Thanksgiving Holiday – No Class

**Week 11:**

- 12/2/13      M      Death & Dying  
Readings: Epilogue
- 12/4/13      W      Oral Histories Due  
Review for Final Exam

**Week 12:      **Final Exam****

## **Psychology 305 Personality (4) Expanded Course Outline**

### **1. Catalog Description**

Personality theories and research. Assessment, dynamics, and development of personality. Trait, behavior, social, learning, cognitive, humanistic, psychoanalytic and biological approaches. 4 lectures. Prerequisite: PSY 201 or PSY 202.

### **2. Course Content**

- What is personality?
- Research Methods
- Personality Assessment
- Trait Theories and Research
- Behavioral Theories and Research
- Social Learning Theories and Research
- Cognitive Theories and Research
- Humanistic Theories and Research
- Psychoanalytic Theories and Research
- Biological Theories and Research

### **3. Course Objectives**

#### **A. Factual Information and Cognitive Skills**

- Know the various theories of personality and evaluate them in light of both research and diversity considerations.
- Comprehend how various theories approach the assessment of personality, how they describe personality development and dynamics, and how they have led to various methods of psychological therapy/counseling.
- Apply knowledge about personality and learn to analyze the causes of behavior by identifying the roles of personality variables (values, cognitions, competencies), personality dynamics (defense mechanisms), personality development (family and cultural variables), the current environment (ethnic discrimination), and biology (heredity and gender).

#### **B. Physical, Performance and Procedural Skills**

- Critically discuss orally and in writing how personality affects behavior (roles of values and expectations) and how personality is affected by biological, environmental, and cultural variables (gender and ethnicity).

#### **C. Attitudes, Values and Social Skills**

- Appreciation of gender, ethnic, and cultural biases in personality theorists and more generally in everyone.
- Tolerance for individual and group differences.
- Respect for the advantages and limitations of scientific methods.



# Psychology 329 Research Methods in Psychology (4) Expanded Course Outline

## 1. Catalog Description

Introduction to research methods used in psychology and other behavioral sciences. Topics include the logic and ethics of research; experimental, correlational, and survey methodology; library search strategies; basic statistical procedures; and the format of the research report. 3 lectures, 1 activity.

Prerequisites: PSY 201 or PSY 202, STAT 217 or STAT 211, or consent of instructor.

## 2. Course Content

### A. Introduction to Research Methods in Psychology

- Psychology as a Science
- The Scientific Method

### B. Ethical Issues in Conducting Psychological Research

- Considering Risks and Benefits
- Informed Consent
- Deception
- Debriefing
- Research with Animals
- Ethical Considerations in Reporting Research

### C. Descriptive Methods: Observation

- Types of Observation
- Data Collection and Analysis
- Limitations of Observational Methods

### D. Writing the Research Report

- Conducting Library Research
- APA Style

### E. Correlational Research: Surveys and Tests

- Survey Sampling
- Survey Methods & Questionnaire Construction
- Survey Research Designs
- Analysis of Survey Research
- Types of Tests
- Limitations of Surveys and Tests

### F. Unobtrusive Measures of Behavior

- Physical Traces
- Archival Data
- Limitations of Unobtrusive Measures

### G. Experimental Methods: Independent Group Designs

- Logic and Characteristics of Experiments
- Experimental Control
- Independent Groups Designs
- Special Concerns and Limitations
- Analysis of Independent Group Designs

### H. Experimental Methods: Within-Subjects Designs

- Characteristics
- Within-Subjects Designs
- Limitations

### I. Experimental Methods: Complex Designs

- Characteristics
- Understanding and Interpreting Interactions
- Limitations

## **Psychology 405 Abnormal Psychology (4) Expanded Course Outline**

### **1. Catalog Description**

Normal and abnormal behavior in everyday life. Anxiety, somatoform, dissociative, mood, childhood, personality, psychotic, cognitive, eating, and substance use disorders and their treatment. 4 lectures. Prerequisite: PSY 201 or PSY 202.

### **2. Course Content**

Introduce students to various models, types, and treatments of abnormal behavior. Topics covered include, but may not be limited to, sociocultural factors in defining and influencing abnormal behavior; causal models of abnormal behavior including biological, psychoanalytic, humanistic/existential, cognitive, behavioral, and systems; types of abnormal behavior including anxiety, somatoform, dissociative, mood, conduct, thought, personality, psychotic, cognitive and substance use disorders; and the treatment of abnormal behavior including individual, group, family, community, and biomedical therapies.

### **3. Course Objectives**

Students will learn:

- Common methods of objective and projective personality assessment.
- The multiaxial diagnostic system using contemporary psychiatric nomenclature.
- The symptoms associated with major psychiatric disorders.
- How to differentiate among various psychiatric disturbances.
- Etiological factors in abnormal behavior.
- Models of treatment of abnormal behavior.
- How to critically evaluate the relative merits/demerits of defining and classifying “deviant” behavior.