

STEPHEN F. AUSTIN STATE UNIVERSITY
James I. Perkins College of Education
Department of Secondary Education and Educational Leadership
Doctorate in Educational Leadership Program

AED 621
Examining Human Inquiry Systems
Fall 2019

Instructor: Ali Hachem

Office: HSTC R311

Office Phone: 936.468.1849

Cell Number: 469.543.9644 (**preferred**)

ZOOM Stable

Link: <https://sfasu.zoom.us/j/8727463271>

Preferred Email (works only in D2L):

hachema@d2l.sfasu.edu

Secondary Email:

hachema@sfasu.edu

Course Time & Location: Fridays 4:30 pm to 8:30 pm, HSTC 321

Credits: 3

Office hours:

Class days: 2:00 pm to 4:30 pm or by appointment (face-to-face, ZOOM, or phone)

“Further advance will require complete abandonment of the customary isolation of the word from the man speaking, and likewise of the word from the thing spoken of or named”

(Dewey & Bentley, *Knowing and the Known*, 1949, p. 50)

I. Course prerequisites: this core program course is limited to doctoral candidates formally admitted to the doctoral program in Educational Leadership and who have completed prerequisite courses in the doctoral program sequence.

II. Course description and justification:

This course introduces students to philosophy of inquiry in the social sciences, quantitative designs in social science research, statistical theory, and using IBM SPSS for descriptive and inferential data analysis. AED 621 is one of the core requirements for the Ed.D. Degree in Educational Leadership. This course follows the executive model of the doctoral program and is scheduled for weekends during the semester, including Friday and Saturday. Multimedia and related digital/virtual technologies are used for additional direct instruction and require a minimum of 9 hours. The course meets 9 Saturdays throughout the semester. Each class meeting is 4 hours (240 minutes) in length and students are expected to be in attendance for all classes, actively engage in discussions, complete all readings assigned for in class and/or outside class, complete all writing and research activities as assigned for in class and/or outside class, and actively participate in the Southwest Educational Research Association (SERA) conference. The sequence of research courses is: AED 603, AED 621, AED 623. The SERA activity is a culmination of a formal research study initiated in AED 603 during Sum I of the program, and sequenced to AED 621 Fall and AED 623 Spring. During AED 621 students will work in research teams outside of class, focused on collecting and analyzing data. Approximately 30 hours of outside-of-class time is required. Students will complete a set of required assignments including a Research Method Review paper and presentation as well as participate in reviewing two jointly (research team) identified research

methods, Student-led discussions in small group and open classroom, Research Proposal for a field-based research study, Research Method Critical Friend (or Peer Assistor) focused on evaluating a peers research design, Research Journal (maintaining a journal during the full semester for submission an review by the instructor of record), SERA Paper final revisions and make a trial presentation prior to attending the conference (SERA research team), prepare a set of trigger questions for all readings, preparing written critiques of select assigned readings, and complete all assigned readings. The assigned readings and writing activities will require a minimum of 6-12 hours per week, outside class. In-class activities that have a written component will require individual and/or small group work. All students will make formal, professional presentations during class using presentation software/applications. All presentations will be prepared outside class and follow activity guidelines and APA 6th Edition and/or professor determined formatting.

III. Areas of study:

A. Philosophy of social science inquiry: positivism and post-positivism, structuralism, hermeneutics, pragmatism, Anti-foundationalism, feminism, and critical theory.

B. Quantitative designs in social science research: scientific method in quantitative research, conceptualization, operationalization, and measurement, quantitative research designs, sampling theory, the research proposal, and the research study.

C. Statistical theory: frequency tables, graphs, and distributions, central tendency measures, variability, standard scores, the normal distribution, probability of normal and sampling distribution, statistical significance, confidence intervals, statistical power and effect size, and reliability and validity.

D. IBM SPSS: package navigation, t-testing, ANOVA, ANCOVA, MANOVA, correlations, bivariate and multiple linear regression, the binomial test, one-sample Chi-square test, two-ways contingency table analysis using crosstabs, nonparametric statistics, Factor analysis, internal consistency estimate of reliability, item analysis, and discriminant analysis.

IV. Informing standards:

A. Stephen F. Austin State University mission statement: Stephen F. Austin State University (SFA) is a comprehensive institution dedicated to excellence in teaching, research, scholarship, creative work, and service. Through the personal attention of our faculty and staff, we engage our students in a learner-centered environment and offer opportunities to prepare for the challenges of living in the global community.

B. James I. Perkins College of Education vision, mission, and core values: The James I. Perkins College of Education will be the college of choice for students striving to achieve professional excellence through exemplary programs that are recognized at state, national, and international levels. The mission of the Perkins College of Education is to prepare competent, successful, caring and enthusiastic professionals from diverse backgrounds dedicated to responsible service, leadership, social justice and continued professional and intellectual development in an interconnected global society. Core values include academic excellence through critical, reflective, and creative thinking, life-long learning, collaboration and shared decision-making, openness to new ideas, to culturally diverse people, and to

innovation and change, integrity, responsibility, diligence, and ethical behavior, and service that enriches the community.

C. The Doctorate in Educational Leadership Program scholar-practitioner model: all course goals and objectives, and, relatedly, all activities for the course, are instructed, in large part, by the following values: (1) acknowledging academic excellence as a cornerstone of the scholar-practitioner's learning experience and in turn as a foundation of the scholar-practitioner's work in the larger community and society, (2) recognizing that the work of a scholar-practitioner's is intellectual and necessarily guided by cognitive reasoning as evidenced by critical, reflective, and creative thinking, (3) understanding the importance of life-long learning as a scholar-practitioner, (4) reflecting through practice the need for democratic and community based inquiry and decision making, (5) demonstrating, as a scholar-practitioner, an openness to new ideas, to culturally diverse people, and to innovation and change, (6) displaying all actions and decisions as a scholar-practitioner dispositions for integrity, responsibility, diligence, and ethical behavior, and finally (7) embracing the importance of service necessary to foster community and democratic citizenship. The following standards guide the curricular and pedagogical philosophy of this course:

1. The development of educational leader as scholar-practitioners who demonstrate depth of understanding of doing educational research characterized by an emphasis on personal self-examination, scholarly and disciplined inquiry, deep thinking and listening, and theoretical and practical applications as related to preparing an educational research proposal:

1.1 Develop an understanding of the design process.

1.2 Engage in research design with a focus on individual disciplined inquiry as it applies to the ethical and moral dimensions of being a dissertation student/researcher.

1.3 Demonstrate reflective practices about problems and experiences related to designing an educational research study.

1.4 Create a climate that promotes dialogic, reflective and reflexive processing and conversation.

2. The preparation of educational leaders as scholar-practitioners with the capacity and capability to provide strong scholarly and inquiry-based leadership within the cohort and doctoral program and concomitantly, in the context of school district, college, university, and community as related to leadership roles in social and educational change, professional growth and development, creating and sustaining a strong communitarian spirit, and development of the human potential:

2.1 Demonstrate an in-depth understanding of research design and the relationship of ethical and professional considerations related to the various dimensions and responsibilities of designing, implementing, and reporting dissertation research.

2.2 Demonstrate capacity to conduct research in relationship with doctoral faculty, dissertation committee members, and participants in the context in which the research is to be conducted.

2.3 Demonstrate capacity and capability to be disciplined and focused as a scholarly researcher.

2.4 Demonstrate a deep understanding of the design / research process in the development of scholar-practitioner leaders and the purpose of the design process in the larger context of the research experience.

V. Students' learning outcomes: by the end of this course, students will be able to:

1. Identify from their own standpoint the benefits and disadvantages of different philosophies of social science research to the actual conduction of educational research.

2. Locate their own research and other published research in different philosophies of social science research.
3. Produce a quantitative research proposal and an actual quantitative research study that are grounded in best quantitative research practices as exemplified in literature of relevance.
4. Evaluate various components of scholarly articles in quantitative educational research.
5. Demonstrate an understanding of the importance of statistical theory to quantitative research.
6. Become proficient users of IBM SPSS in all its functionalities.
7. Become proficient designers of quantitative research data collection instruments.
8. Sharpen presentation techniques, group work skills, and ability to contribute to scholarly discussions.

VI. Pedagogical approach: a variety of instructional approaches are used in this course including mini-lectures, guided computer practice, Socratic dialogue, peer teaching, group learning and teaching, problem- and case-based teaching, and whole class student led discussions/conversations.

VII. Readings:

A. Required texts/materials:

1. Baronov, D. (2016). *Conceptual foundations of social research methods (2nd ed.)*. New York: Routledge.

First two chapters available on D2L and as hard copy. The book is available from Amazon and Vital Source.

3. Laerd Statistics (n.d.). *Laerd Statistics*. Retrieved from <https://statistics.laerd.com/>.

Rent for six months.

3. IBM SPSS for graduate students through **Hearne Software (rent for six months)**

Download the **standard 26th** version

<https://www.ibm.com/us-en/marketplace/spss-statistics-gradpack/details#product-header-top>

B. Soft and hard copies of selected readings will be provided via D2L from the following texts (please review course calendar for more details):

Chapter nine and 11 of Benton, T., & Craib, I. (2011). *Philosophy of social science* (2nd ed.). New York, NY: Palgrave Macmillan.

Chapter six of Joseph, J. (2003). *Social theory: An introduction*. New York, NY: New York University Press.

C. Recommended readings:

1. Social Theory:

Joseph, J. (2003). *Social theory: An introduction*. New York, NY: New York University Press.

2. Quantitative research:

Babbie, E. (2016). *The practice of social research* (14th ed.). Boston, MA: Cengage Learning.

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford, UK: Oxford University Press.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). New York, NY: Routledge Publishing.

Hoy, W. K., & Adams, C. M. (2016). *Quantitative research in education: A primer* (2nd ed.). Los Angeles, CA: SAGE Publishing.

Mills, G. E., & Gay, L. R. (2016). *Educational research: Competencies for analysis and applications* (11th ed.). New York, NY: Pearson Publishing.

Schutt, R. K. (2015). *Investigating the social world: The process and practice of research* (8th ed.). Los Angeles, CA: SAGE Publishing.

3. Statistical theory:

Cohen, B. H. (2013). *Explaining psychological statistics* (4th ed.). Hoboken, NJ: Wiley Publishing.

Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Ott, R. L., & Longnecker, M. (2016). *An introduction to statistical methods and data analysis* (7th ed.). Boston, MA: Cengage Learning.

Salkind, N. J. (2014). *Statistics for people who (think they) hate statistics* (5th ed.). Thousand Oaks, CA: SAGE publications.

Spatz, C. (2011). *Basic statistics: Tales of distributions* (10th ed.). Belmont, CA: Wadworth Publishing.

4. IBM SPSS:

Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

George, D., & Mallery, P. (2016). *IBM SPSS statistics 23 step by step* (14th ed.). New York, NY: Routledge.

5. Other:

Vogt, W. P., & Johnson, R. B. (2016). *The SAGE dictionary of statistics & methodology* (5th ed.). Thousand Oaks, CA: SAGE publications.

VIII. Calendar and Assessments:

A. letter grades:

A = 90-100 B = 80-89 C = 70-79 D = 60-69 F (below 60%)

B. may affect your grade:

All assignments must be completed to earn an A. missing the class twice may result in an automatic decrease of final course grade by one letter. Mastery of course content and skills and high quality assignment submissions affect your grade in measurable ways. Late work may receive a grade reduced by 20% (an actual 90% for example becomes a 70%). In case of emergency, you are responsible for making suitable arrangements. You are eligible to submit any work with which grade you are not satisfied (within reasonable time limits). No work at all will be accepted after the end of the last day of class. An incomplete or WH grade will not be allowed for this course but under extenuating circumstances—these have to be documented.

C. Course Calendar:

I may be in a conference on November 10th. If the case, you will be informed of corresponding class arrangements.

Date	Focus
08.24 S1	<p>Topics: Course Introduction; the SERA Proposal; Introduction to Mathematical Language</p> <p>Readings: N/A</p>
09.06 S2	<p>Topics: Embryonic and Logical Positivism SERA/GRC Introduction to SPSS LAERD: One and Two way ANOVA, One and Two Way Repeated Measure ANOVA.</p> <p>Readings: Baronov (chapters 1 & 2), Laerd (tests above).</p>
09.20 S3	<p>Topics: Post-Positivism, Critiques of Positivism and Empiricism SERA/GRC Qualtrics LAERD: Mann-Whitney U Test, Wilcoxon signed-rank, Sign Test, McNemar Test, Cochran's Q.</p> <p>Readings: Baronov (chapter 2), Benton & Craib (chapter 3), Laerd (tests above).</p>
10.04 S4	<p>Topics: Structuralism, Hermeneutics SERA/GRC Sampling Distribution</p>

	<p>LAERD: Kruskal-Wallis H Test, Friedman Test, Test of two proportions, Chi-Square Test of Homogeneity (2*C), Chi-Square Test of Homogeneity (R*2).</p> <p>Readings: Baronov (chapters 4 & 5), Laerd (tests above).</p>
10.18 S5	<p>Topics: Pragmatism, Critical Theory SERA/GRC Power and Effect Size LAERD: Pearson Correlation, Point-Biserial Correlation, Pearson Partial Correlation, Spearman's Correlation.</p> <p>Readings: Baronov (chapter 6), Joseph (chapter 6), Laerd (tests above).</p>
10.25 S6	<p>Topics: Feminism, Anti-Foundationalism SERA/GRC Typical Quantitative Research Designs LAERD: Chi-Square Test for Association (2*2), Chi-Square Test of Independence (R*C), Principal Components Analysis.</p> <p>Readings: Benton & Craib (chapter 9), Baronov (chapter 7), tests above.</p>
11.8 S7	<p>Topics: SERA/GRC Reliability and Validity LAERD: Linear Regression, Standard Multiple Regression, Hierarchical Multiple Regression, Binomial Logistic Regression, Ordinal Logistic Regression.</p> <p>Readings: Laerd (tests above).</p>
11.15 S8	<p>Topics: SERA/GRC SPSS Mapping Tree LAERD: One-Way MANOVA, Two-Way MANOVA, One-Way MANCOVA.</p> <p>Readings: Laerd (tests above).</p>
12.06 S9	<p>Topics: SERA/GRC Research as Narrative.</p>

	Readings: N/A
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D. Assessments:

Assignments

Assignment	Due Date	Grade %
Class Participation	During every class	15
Philosophy of Inquiry Discussion Board	Beginning of class (S2-S6)	10
Research Method Paper and Presentation	Varies (see below)	8+2=10
The SERA Proposal	August 23 rd	10
SPSS Quiz I (covers sessions 2 and 3)	September 20 th	5
SPSS Quiz II (covers sessions 4 and 5)	October 18 th	5
SPSS Quiz III (covers sessions 6 and 7)	November 11 th	5
Philosophy of Inquiry Project Start working on this assignment as soon as possible. Follow my instructions as soon as you receive them.	November 18 th	15
The SERA/GRC Research Study Start working on this assignment as soon as possible.	December 6 th	20+5=25

Generic Steps Involved in the SERA/GRC Research Study

<p>Progressing through these steps depends on your prompt reaction to my individualized instructions. This is a step-by step sequential process that takes time. Being proactive cannot be more important.</p>	Have your proposal approved and submitted to SERA
	Securing approval of cooperating institutions
	Design your instruments or construct data files
	Secure IRB approval
	Collect and analyze data
	Produce your report

The Research Method Paper (due by end of class) and presentation (due during class)

Date	Leading	Methods/Theories
October 4		Descriptive Quantitative Research
October 18		Correlational Quantitative Research
October 25		Causal-Comparative Research
November 8		Experimental Research
November 15		Quasi-Experimental Research

E. Assessments' description:

1. Class participation (15%): This class is a doctorate seminar and requires active reflective contribution to all session activities.

2. SPSS Quizzes (5% each, three in total, 15% in total): *individually*, you will take a quiz about one of the statistical tests assigned.
3. Philosophy of inquiry exemplars forums (10%): *individually*, and for each of the sessions 2-6 of the course, you will participate in a forum about the corresponding readings. More details will be available on D2L.
4. Philosophy of inquiry research project (15%): *individually*, you will select an educational site where some type of inquiry is taking place. You will then make ethnographic observations, document these observations, and then critically engage different philosophies of inquiry to better understand the site and its potentials inquiry potentials and problems. More details will be made available via D2L.
5. The SERA proposal (10%): *individually*, you will produce a research proposal that you will submit to the SERA conference. More details will be made available via D2L.
6. The SERA research paper and presentation (25+5%): *individually*, you will produce and present a research study. More details will be made available via D2L.
7. The research method paper and presentation (8+2%): for this assignment, you will prepare a research paper about one of the research methods commonly used in educational research. More details and a rubric will be made available via D2L. As dates are not yet set and they differ from student to student, please note that these will be conveyed to you via D2L. This assignment involves a paper and a class presentation.

IX. Course Policies:

Academic Accommodation for Students with Disabilities (Policy 6.1 and 6.6): To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to <http://www.sfasu.edu/disabilitiyservices/>.

Academic expectations: this is a synthetic and integrated doctorate course that requires an investment on your behalf of reflective time and effort. You are expected to submit assignments of good quality and contribute positively to the intellectual, academic, and professional growth of your cohort.

Intellectual expectations: in this course, you are expected to demonstrate some essential intellectual characteristics including but not limited to those of inquiry, critique, openness, reflexivity, and rigor.

Personal expectations: in this course, you are expected to treat everybody with respect and good manners. Your communications should meet professional standards expected from a doctorate student and an aspiring scholar-practitioner.

Work quality: as a doctorate student, you are expected to give your best in completing the course work. Assignments should be completed with care, meet all assignment criteria, and

show authenticity, inventiveness, and depth. Your writing is expected to be coherent, creative, and does not include spelling, syntax, or grammar mistakes. You are expected to use APA style for formatting, citation, and referencing at all times.

Participation and engagement: in this course, you are expected to engage with course materials, your colleagues, and your instructor in authentic ways that will contribute to your growth and other students in the class.

Late and missing work:

All assignments must be completed in order to receive an A in the course. Assignments not completed by the due date may only receive up to 80% of the total grade. For example, if you would have otherwise made a 100 on a late assignment, then you will receive an 80. Had you made a 90, then you will receive a 70 (please let me know should *extremely beyond control* conditions require negotiating a due date).

Hints for success: be organized and manage your time properly. Be proactive. Communicate if you need to. Be open to learning and reflexively embrace change.

Instructor support: I am here to help you WHENEVER you need help, and it does NOT matter how many times you will need it! Please communicate with me as frequent as you need to. This is my job here! It will be my pleasure to answer an email of yours, communicate with you via Skype, or meet you in person if you need to. There is no irrelevant question or concern!

Academic Honesty (Student Academic Dishonesty, Policy 4.1): Abiding by university policy on academic integrity is a responsibility of all university faculty and students. Definition of Academic Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to:

- using or attempting to use unauthorized materials on any class assignment or exam
- falsifying or inventing of any information, including citations, on an assignment; and/or
- helping or attempting to help another in an act of cheating or plagiarism

Plagiarism is presenting the words or ideas of another person as if they were one's own.

Examples of plagiarism include, but are not limited to:

- submitting an assignment as one's own work when it is at least partly the work of another person;
- submitting a work that has been purchased or otherwise obtained from the Internet or another source; and/or,
- incorporating the words or ideas of an author into one's paper or presentation without giving the author credit.

Penalties for Academic Dishonesty: Penalties may include, but are not limited to reprimand, no credit for the assignment or exam, re-submission of the work, make-up exam, failure of the course, or expulsion from the university

Student Appeals: A student who wishes to appeal decisions related to academic dishonesty should follow procedures outlined in Academic Appeals by Students (6.3).

Withheld Grades (Policy 5.5): At the discretion of the instructor of record and with the approval of the academic unit head, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or

the grade automatically becomes an F, except as allowed through policy [i.e., Active Military Service (6.14)]. If students register for the same course in future semesters, the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Course Evaluation: Near the conclusion of each semester, students in the Perkins College of Education electronically evaluate courses taken within the PCOE. Evaluation data is used for a variety of important purposes including:

1. Course and program improvement, planning, and accreditation;
2. Instruction evaluation purposes; and
3. Making decisions on faculty tenure, promotion, pay, and retention.

As you evaluate this course, please be thoughtful, thorough, and accurate in completing the evaluation. Please know that the PCOE faculty is committed to excellence in teaching and continued improvement. Therefore, your response is critical!

In the Perkins College of Education, the course evaluation process has been simplified and is completed electronically through MySFA. Although the instructor will be able to view the names of students who complete the survey, all ratings and comments are confidential and anonymous, and will not be available to the instructor until after final grades are posted.

Student Code of Conduct (Policy 10.4): Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the iCare: Early Alert Program at SFA. Information regarding the iCare program is found at <https://www.sfasu.edu/judicial/earlyalert.asp> or call the office at 936-468-2703.

Class Attendance and Excused Absence (Policy 6.7): Regular, punctual attendance, documented participation, and, if indicated in the syllabus, submission of completed assignments are expected at all classes, laboratories, and other activities for which the student is registered. Based on university policy, failure of students to adhere to these requirements shall influence the course grade, financial assistance, and/or enrollment status. The instructor shall maintain an accurate record of each student's attendance and participation as well as note this information in required reports and in determining final grades. Students may be excused from attendance for reasons such as health, family emergencies, or student participation in approved university-sponsored events. However, students are responsible for notifying their instructors in advance, when possible, for excusable absences. Whether absences are excused or unexcused, a student is still responsible for all course content and assignments. Students with accepted excuses may be permitted to make up work for up to three weeks of absences during a semester or one week of a summer term, depending on the nature of the missed work. Make-up work must be completed as soon as possible after returning from an absence. Being absent for two classes will result in lowering your grade by one letter (an A for example will become a B, A B will become a C).

X. Bibliography:

A. Philosophy of research:

- Baronov, D. (2016). *Conceptual foundations of social research methods* (2nd ed.). New York, NY: Routledge.
- Benton, T., & Craib, I. (2011). *Philosophy of social science* (2nd ed.). New York, NY: Palgrave Macmillan.
- Joseph, J. (2003). *Social theory: An introduction*. New York, NY: New York University Press.

B. Quantitative research:

- Ary, D., Cheser Jacobs, L., Sorensen, C. K., & Walker, D. A. (2014). *Introduction to research in education* (9th ed.). Belmont, CA: Wadworth Publishing.
- Babbie, E. (2016). *The practice of social research* (14th ed.). Boston, MA: Cengage Learning.
- Bernard, H. R. (2013). *Social research methods: Qualitative and quantitative approaches* (2nd ed.). Los Angeles, CA: SAGE Publishing.
- Best, J. B., & Khan, J. V. (2006). *Research in education* (10th ed.). Boston, MA: Pearson Publishing.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford, UK: Oxford University Press.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). New York, NY: Routledge Publishing.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Los Angeles, CA: SAGE Publishing.
- Frankfort-Nachmias, C., Nachmias, D., & DeWaard, J. (2015). *Research methods in the social sciences* (8th ed.). New York, NY: Worth Publishers.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2015). *How to design and evaluate research in education* (9th ed.). New York, NY: McGraw Hill Education.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson Publishing.
- Johnson, R. B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches* (5th ed.). Los Angeles, CA: SAGE Publishing.
- Hoy, W. K., & Adams, C. M. (2016). *Quantitate research in education: A primer* (2nd ed.). Los Angeles, CA: SAGE Publishing.
- McMillen, J. H., & Schumacher, S. (2010). *Research in education: Evidence-based inquiry* (7th ed.). Boston, MA: Pearson Publishing.
- Mertens, D. M. (2015). *Research and evaluation in education and psychology* (4th ed.). Los Angeles, CA: SAGE Publishing.
- Mertler, C. A. (2016). *Introduction to educational research*. Los Angeles, CA: SAGE Publishing.
- Mills, G. E., & Gay, L. R. (2016). *Educational research: Competencies for analysis and applications* (11th ed.). New York, NY: Pearson Publishing.
- Newman, W. L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). New York, NY: Pearson Publishing.
- Schutt, R. K. (2015). *Investigating the social world: The process and practice of research* (8th ed.). Los Angeles, CA: SAGE Publishing.
- Singleton, R. A. Jr., & Straits, B. C. (2010). *Approaches to social research* (5th ed.). Oxford, UK: Oxford University Press.
- Wiersma, W., & Jurs, S. G. (2009). *Research methods in education: An introduction* (9th ed.). San Francisco, CA: Pearson Publishing.

C. Statistical theory:

- Agresti, A., & Finlay, B. (2009). *Statistical methods for the social sciences* (4th ed.). Upper

- Saddle River, NJ: Pearson Publishing.
- Aron, A., Coups, E. J., & Aron, E. N. (2011). *Statistics for the behavioral and social sciences: A brief course* (5th ed.). Boston, MA: Prentice Hall.
- Cohen, B. H. (2013). *Explaining psychological statistics* (4th ed.). Hoboken, NJ: Wiley Publishing.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- Freedman, D., Pisani, R., & Purves, R. (2007). *Statistics* (4th ed.). New York, NY: W. W. Norton & Company.
- Gravetter, F. J., & Wallnau, L. B. (2013). *Statistics for the behavioral sciences* (9th ed.). Belmont, CA: Wadworth Publishing.
- Hatcher, L. (2013). *Advanced statistics in research: Reading, understanding, and writing up data analysis results*. Saginaw, MI: Shadow Finch Media.
- Hinton, P. R. (2014). *Statistics explained* (3rd ed.). New York, NY: Routledge.
- Howell, D. C. (2013). *Statistical methods for psychology*. Belmont, CA: Wadworth Publishing.
- Huck, S. W., & Cormier, W. H. (1996). *Reading statistics and research* (2nd ed.). New York, NY: HarperCollins Publishers.
- Jaccard, J., & Becker, M. A. (2009). *Statistics for the behavioral sciences* (5th ed.). Boston, MA: Cengage Learning.
- Jackson, S. L. (2014). *Statistics plain and simple* (3rd ed.). Belmont, CA: Wadworth Publishing.
- Kranzler, J. H. (2011). *Statistics for the terrified* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Levin, J., Fox, J. A., & Forde, D. R. (2013). *Elementary statistics in social research* (12th ed.). Upper Saddle River, NJ: Pearson Publishing.
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XI. Disclaimer: The instructor reserves the right to revise, alter and/or amend any section in this syllabus, as deemed necessary. Students will be notified in writing and/or by email of any such revisions, alterations and/or amendments. In such a case, the syllabus will be amended and a new version will be both emailed and uploaded to D2L. Rationales for the amendment will be provided and students will be allowed to express their opinion about the process.