Stephen F. Austin State university  
James I. Perkins College of Education  
Department of Human Services and Educational Leadership  
Doctorate in Educational Leadership Program  

EDLE 6375 (600), CRN 31388  
Quantitative Research  
Summer 2023  

Instructor: Ali Hachem  
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Office: HSTC R311  
Office Phone: 936.468.1849  
Cell Number: 469.543.9644 (preferred)  

 Credits: 3  
Course Time & Location: Online (with optional weekly, whole group Zoom sessions)  
Office hours: Mondays through Fridays, 9:00 am to 9:00 pm (online) and Zoom (by appointment only, any of the seven days of the week (9:00 am to 9:00 pm).  

ZOOM Stable Link: https://sfasu.zoom.us/j/8727463271  

“Science is facts; just as houses are made of stone, so is science made of facts; but a pile of stones is not a house, and a collection of facts is not necessarily science.”  
(Jules Henri Poincaré, 1854-1912, French mathematician)  

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 science in the social sciences, quantitative designs in social science research, statistical theory, and using IBM SPSS for descriptive and inferential data analysis. In relation to philosophy science in the social sciences, the course focuses on major tenets of the scientific method. In relation to quantitative research designs in the social sciences, the course focuses on scientific method in quantitative research, conceptualization, operationalization, and measurement, quantitative research designs, sampling theory, the research proposal, and the research study. In relation to statistical
This course introduces students to philosophy of science in the social sciences, quantitative designs in social science research, statistical theory, and using IBM SPSS for descriptive and inferential data analysis. EDLE 6313 is one of the core research requirements for the Ed.D. Degree in Educational Leadership. This course follows the executive model of the doctoral program and it is scheduled online. Multimedia and related digital/virtual technologies are used for instruction. Students are expected to be actively engage in discussions, complete all readings assigned, complete all writing and research activities, and produce a mini study, to later on participate in the SFASU Graduate Research Conference (paper and presentation). This study will require no less than 30 hours. Student will be required to read two reference texts and interact with a statistical software and a corresponding platform. They will participate in discussion boards, exams, and homework based on these references, and regularly during the semester. Students will also produce a paper about a specific component of quantitative research (paper and presentation) and another paper engaging the different stages in and elements of quantitative research. In addition, students will identify then critique three quantitative research articles. The assigned course work will require a minimum of 10-16 hours per week. All papers and presentations will follow activity guidelines and APA 7th Edition.

III. Areas of study:

A. Philosophy of science in the social sciences: the scientific method.

B. Quantitative research designs in the social sciences: 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, reliability and validity, and inferential statistics.

D. IBM SPSS: package navigation, parametric testing, nonparametric testing, various ANOVA designs, various MANOVA Designs, various regression designs, various Chi-Square designs, and correlation.

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, core values, and diversity statement: 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. The James I. Perkins College of Education is committed to proactively recruiting and retaining a diverse faculty, staff, and student population. Through open dialogue, mutual respect and shared responsibility, faculty, staff and students will demonstrate an understanding and sensitivity to ethnicity, race, gender, exceptionalities, culture, language/dialect, age, social class, family structure, sexual orientation, religion and spiritual values in order to enhance the quality of life in a diverse, global community.

V. II. Intended Learning Outcomes/Goals/Objectives:

A. Program Learning Outcomes (PLOs):
Students graduating with an Ed.D. in Educational Leadership will be able to:
1. use data, policy and research to lead continuous improvement and drive transformative change and innovation in P-20 education settings (RSCH 6314)
2. demonstrate knowledge of ethical and moral responsibilities of leadership (EDLE 6342)
3. apply theory and contextual knowledge to educational practice (EDLE 6341)
4. practice analytical and communication skills in leadership roles (EDLE 6345)
5. understand, design, and conduct research in educational leadership (EDLE 6199)

B. Student Learning Outcomes (SLOs):
Students in this class will have the chance to put the time and effort to:
1. become familiar with the typical research elements in quantitative research (including philosophy).
2. deploy the typical research elements in quantitative research they learn about to engage a quantitative research scenario.
3. be proficient in major tenets of statistical theory as these applies to educational research and understand the implications of such tenets to actual statistical analysis.
4. be proficient in using different statistical tests to analyze statistical data to answer research questions and/or test research hypotheses.
5. be able to plan, conduct, and write up a quantitative research study with secondary data.
6. sharpen their presentation techniques, group work skills, and ability to contribute to a scholarly conversation.

VI. Pedagogical approach: Varieties of instructional approaches are used in this course including independent reading, guided reading, group teaching and learning, group discussions/conversations, exams, and papers and presentations.

VII. Readings:
A. Required Texts/materials:

Rent for six months ($12.99)

2. IBM SPSS for graduate students through Hearne Software (Grad Pack, rent for six months). Download the Standard 28th version ($49 for six month rental)
[https://www.hearne.software/SPSS-Grad-Pack-Selection-v28?adoper=174258_1_OT1]

You can rent the e-text for 180 days for $60 using Vital Source. Please feel free to use other options if you think better suit your purposes.
[https://www.vitalsource.com/products/approaches-to-social-research-royce-a-singleton-bruce-c-v9780190635114]

You can buy the e-text (permanent download) for $24 using the text’s website. Please feel free to use other options if you think better suit your purposes.
[https://exploringstatistics.com/]


B. Other readings/materials:

Soft copies of selected readings/instructional materials will be provided via D2L.

C. Recommended optional readings:

1. Social Theory:
   

2. Quantitative research:
   
   
   
   
   

**3. Statistical theory:**


**4. IBM SPSS:**


**5. Other:**


**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 major course assignments (or equivalent) must be completed to earn an A in this course. Failing to do so will reduce your grade by one letter grade (for example, a final A will become a final B). 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 extremely serious circumstances—these must be properly documented, and they will discussed with the program leadership before issuing a final decision.
### C. Course Calendar: **All times are in Central Standard Time (CST)**

<table>
<thead>
<tr>
<th>Getting Started Module</th>
<th>Starts: May 8</th>
<th>Ends: May 14</th>
<th>7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Study</strong></td>
<td>Focus</td>
<td>Required Readings</td>
<td>Assignments Due</td>
</tr>
<tr>
<td><strong>Quantitative Research</strong></td>
<td># Introduction # Research Scenario</td>
<td>D2L</td>
<td># Read and understand the introduction on quantitative research. # Make first research scenario topic post (The Quantitative Research Discussion Forum, Singleton) before midnight of day four. # Research scenario topic post should be approved before midnight of day seven.</td>
</tr>
<tr>
<td><strong>Statistical Theory</strong></td>
<td>Introduction</td>
<td>D2L</td>
<td>Read and understand the introduction on statistical theory.</td>
</tr>
<tr>
<td><strong>SPSS/Laerd</strong></td>
<td>Introduction</td>
<td>D2L</td>
<td>Read and understand the introduction on SPSS/Laerd.</td>
</tr>
<tr>
<td><strong>Research Project</strong></td>
<td># Introduction # Selecting team members # Working on identifying a data set</td>
<td>D2L</td>
<td># Read and understand the introduction on the research project. # In this project, you will work in pairs. Report your group under The Quantitative Research Study Paper and Presentation Discussion Forum. # Start working on locating your data set. For more details, see the data set topic under the Quantitative Research Study Paper and Presentation Discussion Forum and the related content under Module 1. Ask questions under the respective topic as needed. First submission will be due before midnight of second day in Module 1 below.</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td># Read and understand all materials not stated above but still introduced under this module. # Skim through all other modules under D2L content. In addition, skim through all discussion broad, dropboxes, and your gradebook. # Post any questions you might have about any of the content of this module as soon as you can and as directed under the module. # Complete the student data form before midnight of day seven. # Complete the student research form before midnight of day seven. # Complete your preferences for the Optional Weekly Zoom Meetings before midnight of day seven. # Complete your introduction post (getting stared discussion forum) before midnight of day four. # Comment on your colleagues’ introduction posts no later before midnight of day seven. # Complete the course acknowledgment quiz before midnight of day seven (make sure to do all of the above before you do so).</td>
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<td>Area of Study</td>
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</tbody>
</table>
| Quantitative Research | The scientific method             | Singleton (chap. 2) D2L     | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| Statistical Theory  | #Introduction to statistical theory  
#Frequency Distributions and Graphs | Spatz (chaps. 1 and 2) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| SPSS/Laerd        | One Way ANOVA                       | D2L                        | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
| Research Project  | # Deciding on a data set  
# Description of the data  
# Description of the sample and the sampling technique | D2L                        | # First post of the data set topic under the quantitative research study paper and presentation discussion forum due before midnight of day two.  
# The Data set should be approved before midnight of day four.  
# Response of colleagues’ postings above before midnight of day seven.  
# Post on the description of the data topic under the quantitative research study paper and presentation discussion forum due before midnight of day five. Feedback will be given as needed and you should continue to work on the post until it is approved.  
# Response of colleagues’ postings above before midnight of day seven.  
# Post on the description of the sample and the sampling technique topic under the quantitative research study paper and presentation discussion forum due before midnight of day six. Feedback will be given as needed and you should continue to work on the post until it is approved.  
# Response of colleagues’ postings above before midnight of day seven. |
<p>| Other             | N/A                                |                            |                                                                                                                                                                                                             |</p>
<table>
<thead>
<tr>
<th>Area of Study</th>
<th>Focus</th>
<th>Required Readings</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td>Research Ethics</td>
<td>Singleton (chap. 3)</td>
<td># Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.</td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td>D2L</td>
<td># Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.</td>
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<td># Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Statistical</td>
<td># Central Tendency</td>
<td>Spatz (chaps. 3, 4, 5)</td>
<td># Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.</td>
</tr>
<tr>
<td>Theory</td>
<td># Variability</td>
<td>D2L</td>
<td># Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.</td>
</tr>
<tr>
<td></td>
<td># Other Descriptive Statistics</td>
<td></td>
<td># Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>SPSS/Laerd</td>
<td>One Way Repeated Measures ANOVA</td>
<td>D2L</td>
<td># Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.</td>
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<td></td>
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<td></td>
<td># Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.</td>
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<td></td>
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<td># Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Research Project</td>
<td>Research Problem, Purpose, and Questions</td>
<td>D2L</td>
<td># Post on the research problem, purpose, and questions topic under the quantitative research study paper and presentation discussion forum due before midnight of day five. Feedback will be given as needed and you should continue to work on the post until it is approved.</td>
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<td></td>
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<td></td>
<td># Response of colleagues’ postings above before midnight of day seven.</td>
</tr>
<tr>
<td>Other</td>
<td>N/A</td>
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<tr>
<td>Area of Study</td>
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<td>Assignments Due</td>
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</tbody>
</table>
| Quantitative Research | Elements of quantitative Research Design | Singleton (chap. 4) D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| Statistical Theory | Correlation and Regression | Spatz (chap. 6) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| SPSS/Laerd      | Mann Whitney U Test        | D2L               | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
<p>| Research Project | Literature Review          | D2L               | Work on the literature review. Please ask questions under the Literature review topic (the quantitative research study paper and presentation discussion forum) as needed. |
| Other           | Article Critique I         |                   | Article Critique I due before midnight of day seven (dropbox).                     |</p>
<table>
<thead>
<tr>
<th><strong>Module 4</strong></th>
<th><strong>Starts: June 5</strong></th>
<th><strong>Ends: June 11</strong></th>
<th><strong>7 days</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Study</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Required Readings</strong></td>
<td><strong>Assignments Due</strong></td>
</tr>
<tr>
<td>Quantitative Research</td>
<td>Measurement in Quantitative Research</td>
<td>Singleton (chap. 5)</td>
<td># Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Statistical Theory</td>
<td># The Normal Distribution # Sampling Distributions and Confidence Intervals</td>
<td>Spatz (chaps. 7 and 8)</td>
<td># Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>SPSS/Laerd</td>
<td>Wilcoxon Signed Rank Test</td>
<td>D2L</td>
<td># Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Research Project</td>
<td># Literature review # Significance of the research</td>
<td>D2L</td>
<td># Post on the Literature review topic under the quantitative research study paper and presentation discussion forum due before midnight of day two. Feedback will be given as needed and you should continue to work on the post until it is approved. # Response of colleagues’ postings above before midnight of day seven. # Post on the Significance of the research topic under the quantitative research study paper and presentation discussion forum due before midnight of day five. Feedback will be given as needed and you should continue to work on the post until it is approved. # Response of colleagues’ postings above before midnight of day seven.</td>
</tr>
<tr>
<td>Other</td>
<td>N/A</td>
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<thead>
<tr>
<th>Module 5</th>
<th>Starts: June 12</th>
<th>Ends: June 18</th>
<th>7 days</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Study</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Required Readings</strong></td>
<td><strong>Assignments Due</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Quantitative Research** | Sampling in quantitative research | Singleton (chap. 6) D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |                      |
| **Statistical Theory** | One-Sample Designs | Spatz (chap. 9) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |                      |
| **SPSS/Laerd** | McNemar's Test | D2L | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |                      |
| **Research Project** | # Method(s) of data analysis  
# The SPSS file | D2L | # Work on the method of data analysis. Please ask questions under the method of data analysis topic (the quantitative research study paper and presentation discussion forum) as needed.  
# Work on the SPSS file. Please ask questions under the SPSS file topic (the quantitative research study paper and presentation discussion forum) as needed. |                      |
<p>| <strong>Other</strong> | SPSS/Laerd Test I (will cover modules 1 to 5) on day seven. More details about mechanics and timing will be send in a later email. | | | |</p>
<table>
<thead>
<tr>
<th>Area of Study</th>
<th>Focus</th>
<th>Required Readings</th>
<th>Assignments Due</th>
</tr>
</thead>
</table>
| Quantitative Research | Experimentation | Singleton (chap. 7) D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| Statistical Theory | Two-Sample Designs | Spatz (chap. 10) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| SPSS/Laerd | Kruskal Wallis H Test | D2L | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
| Research Project | # Method(s) of data analysis  
# The SPSS file | D2L | # Work on the method of data analysis. Please ask questions under the method of data analysis topic (the quantitative research study paper and presentation discussion forum) as needed.  
# Work on the SPSS file. Please ask questions under the SPSS file topic (the quantitative research study paper and presentation discussion forum) as needed. |
<p>| Other | Statistical Theory Test I (will cover modules 1 to 6) on day seven. More details about mechanics and timing will be send in a later email. | | |</p>
<table>
<thead>
<tr>
<th>Module 7</th>
<th>Starts: June 26</th>
<th>Ends: July 2</th>
<th>7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Study</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Required Readings</strong></td>
<td><strong>Assignments Due</strong></td>
</tr>
</tbody>
</table>
| **Quantitative Research** | Experimental Designs | Singleton (chap. 8) D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| **Statistical Theory** | Independent Samples ANOVAs | Spatz (chap. 11) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| **SPSS/Laerd** | Chi-Square Test of Homogeneity (2xC) | D2L | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
| **Research Project** | # Method(s) of data analysis  
# The SPSS file | D2L | # Post on the Method(s) of data analysis topic under the quantitative research study paper and presentation discussion forum due before midnight of day one. Feedback will be given as needed and you should continue to work on the post until it is approved.  
# Response of colleagues’ postings above before midnight of day seven.  
# Post on the SPSS file topic under the quantitative research study paper and presentation discussion forum due before midnight of day four. Feedback will be given as needed and you should continue to work on the post until it is approved.  
# Response of colleagues’ postings above before midnight of day seven. |
<p>| <strong>Other</strong> | Article Critique II due before midnight of day seven (dropbox). | | |</p>
<table>
<thead>
<tr>
<th>Area of Study</th>
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<th>Assignments Due</th>
</tr>
</thead>
</table>
| Quantitative     | Survey Research              | Singleton (chap. 9) D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| Theory           | Repeated Measures ANOVAs     | Spatz (chap. 12) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| Statistical      | Chi-Square Test of Homogeneity (Rx2) | D2L | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
<p>| Project          | Data analysis and the findings | D2L | Work on your data analysis and the findings. Please ask questions under the data analysis and the findings topic (the quantitative research study paper and presentation discussion forum) as needed. |
| Other            | The Quantitative Research Topic Paper and Presentation | | The Quantitative Research Topic Paper and Presentation due before midnight of day seven (both under the Quantitative Research Topic Paper discussion forum and a corresponding dropbox) |</p>
<table>
<thead>
<tr>
<th>Module 9</th>
<th>Starts: July 10</th>
<th>Ends: July 16</th>
<th>7 days</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Study</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Required Readings</strong></td>
<td></td>
<td><strong>Assignments Due</strong></td>
</tr>
</tbody>
</table>
| **Quantitative Research** | Survey Instrumentation | Singleton (chap. 10) | D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| **Statistical Theory** | Factorial designs | Spatz (chap. 13) | D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| **SPSS/Laerd** | Pearson Correlation | D2L | | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
<p>| <strong>Research Project</strong> | Data analysis and the findings | D2L | | Work on your data analysis and the findings. Please ask questions under the data analysis and the findings topic (the quantitative research study paper and presentation discussion forum) as needed. |
| <strong>Other</strong> | Responding to the Quantitative Research Topic Presentation (under Quantitative Research Topic Paper discussion forum) by midnight of day seven. | | | |</p>
<table>
<thead>
<tr>
<th>Module 10</th>
<th>Starts: July 17</th>
<th>Ends: July 23</th>
<th>7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Study</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Required Readings</strong></td>
<td><strong>Assignments Due</strong></td>
</tr>
<tr>
<td>Quantitative Research</td>
<td>Research Using Available Data</td>
<td>Singleton (chap. 12) D2L</td>
<td># Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Statistical Theory</td>
<td>Chi Square Tests</td>
<td>Spatz (chap. 14) D2L</td>
<td># Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>SPSS/Laerd</td>
<td>Spearman Correlation</td>
<td>D2L</td>
<td># Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Research Project</td>
<td>Data analysis and the findings</td>
<td>D2L</td>
<td># Post on the data analysis and the findings topic under the quantitative research study paper and presentation discussion forum due before midnight of day two. Feedback will be given as needed and you should continue to work on the post until it is approved. # Response of colleagues’ postings above before midnight of day seven.</td>
</tr>
<tr>
<td>Other</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Module 11</td>
<td>Starts: July 24</td>
<td>Ends: July 30</td>
<td>7 days</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Area of Study</strong></td>
<td><strong>Focus</strong></td>
<td><strong>Required Readings</strong></td>
<td></td>
</tr>
<tr>
<td>Quantitative</td>
<td>Data Processing and Elementary Data Analysis</td>
<td>Singleton (chaps. 15 and 16) D2L</td>
<td># Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Research</td>
<td>Statistical Theory</td>
<td>Nonparametric Tests</td>
<td>Spatz (chap. 15) D2L</td>
</tr>
<tr>
<td>SPSS/Laerd</td>
<td>Simple Linear Regression</td>
<td>D2L</td>
<td># Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five. # Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six. # Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven.</td>
</tr>
<tr>
<td>Research Project</td>
<td>Implications, Limitations, The abstract, the title, and the key words, List of references, The final paper</td>
<td>D2L</td>
<td># Posts on (1) implications, (2) limitations, (3) abstract, title, and key words, and (4) list of references topics under the quantitative research study paper and presentation discussion forum due before midnight of day four. Feedback will be given as needed and you should continue to work on the posts until they are approved. # Response of colleagues’ postings above before midnight of day seven. # The final paper should be uploaded to dropbox and the corresponding topic under the quantitative research study paper and presentation discussion forum before midnight of day seven.</td>
</tr>
<tr>
<td>Other</td>
<td>SPSS/Laerd Test II (will cover modules 6 to 11) on day seven. More details about mechanics and timing will be send in a later email.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area of Study</td>
<td>Focus</td>
<td>Required Readings</td>
<td>Assignments Due</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Quantitative Research | Writing Research Reports                    | Singleton (chap. 17) D2L | # Post one of the discussions and questions topic under the quantitative research discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the quantitative research discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the quantitative research discussion forum due before midnight of day seven. |
| Statistical Theory | Choosing Tests and Writing Interpretations   | Spatz (chap. 16) D2L | # Post one of the discussions and questions topic under the statistical theory discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the statistical theory discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the statistical theory discussion forum due before midnight of day seven. |
| SPSS/Laerd       | Standard Multiple Regression                | D2L               | # Post one of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day five.  
# Post two of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day six.  
# Post three of the discussions and questions topic under the SPSS/Laerd discussion forum due before midnight of day seven. |
| Research Project | The research presentation                   | D2L               | The research presentation should be uploaded to dropbox and the corresponding topic under the quantitative research study paper and presentation discussion forum due before midnight of day seven. |
| Other            | Statistical Theory Test II (will cover modules 7 to 12) on day seven. More details about mechanics and timing will be send in a later email.  
Responding to you colleagues’ research presentations (under the quantitative research study paper and presentation discussion forum) by midnight of day seven. |
D. Assessments:

Assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Data Form</td>
<td>1</td>
</tr>
<tr>
<td>Student Research Form</td>
<td>1</td>
</tr>
<tr>
<td>Course Acknowledgment Quiz</td>
<td>1</td>
</tr>
<tr>
<td>Quantitative Research Discussion Forum</td>
<td>9</td>
</tr>
<tr>
<td>Statistical Theory Discussion Forum</td>
<td>9</td>
</tr>
<tr>
<td>SPSS/Laerd Discussion Forum</td>
<td>9</td>
</tr>
<tr>
<td>Quantitative research study paper and presentation discussion forum</td>
<td>10</td>
</tr>
<tr>
<td>Research Project Paper</td>
<td>7.5</td>
</tr>
<tr>
<td>Research Project Presentation</td>
<td>2.5</td>
</tr>
<tr>
<td>Responding to the Quantitative Research Project Paper and Presentation</td>
<td>2.5</td>
</tr>
<tr>
<td>Article Critique I</td>
<td>2.5</td>
</tr>
<tr>
<td>Article Critique II</td>
<td>2.5</td>
</tr>
<tr>
<td>SPSS/Laerd Test I</td>
<td>7.5</td>
</tr>
<tr>
<td>SPSS/Laerd Test II</td>
<td>7.5</td>
</tr>
<tr>
<td>Statistical Theory Test I</td>
<td>7.5</td>
</tr>
<tr>
<td>Statistical Theory Test II</td>
<td>7.5</td>
</tr>
<tr>
<td>Quantitative Research Topic Paper</td>
<td>7.5</td>
</tr>
<tr>
<td>Quantitative Research Topic Presentation</td>
<td>2.5</td>
</tr>
<tr>
<td>Responding to the Quantitative Research Topic Paper and Presentation</td>
<td>2.5</td>
</tr>
</tbody>
</table>

E. Assessments’ description:

1. **Student Data Form**: you will complete a form about your contact information and educational and professional background.

2. **Student Research Form**: you will complete a form about your research background, needs, and potentials.

3. **Course acknowledgment Quiz**: you will take a quiz to acknowledge that you will abide by all course policies, requirements, and documents.

4. **Quantitative Research Discussion Forum**: this is a collective and reflective forum about the quantitative research readings assigned.

5. **Statistical Theory Discussion Forum**: this is a collective and reflective forum about the statistical theory readings assigned.

6. **SPSS/Laerd Discussion Forum**: this is a collective and reflective forum about the SPSS/Laerd readings assigned.

7. **Quantitative research study paper and presentation discussion forum**: this is a collective and reflective forum about your research project. This is the place where you will submit
your work for the different parts of the research project and where you will have these approved.

8. Research Project Paper: this is the final compiled paper of your research project.

9. Research Project Presentation: this is the presentation of your research project.

10. Responding to the Quantitative Research Project Paper and Presentation: this is a collective forum where you will learn from other students about their research projects.

11. Article Critiques I and II: these are opportunities for you to read and critique quantitative, empirical research articles.

12. SPSS/Laerd Tests I and II: these will test your knowledge about the respective assigned readings.

13. Statistical Theory Tests I and II: these will test your knowledge about the respective assigned readings.

14. Quantitative Research Topic Paper: you will here present your research on a specific area of quantitative research.

15. Quantitative Research Topic Presentation: this is the presentation of your research Topic Paper.

16. Responding to the Quantitative Research Topic Paper and Presentation: this is a collective forum where you will learn from other students about their research topic papers.

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/disabilityservices/.

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 major 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 Zoom, 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):** Upon the request from student to the instructor of record and at the discretion of the instructor of record and with the approval of the academic unit head, a
grade of WH may 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. If a student has been found guilty of academic dishonesty, a grade of “WP” or “WH” may be changed to “WF” at the discretion of the faculty member. In the case of a grade change to “WF”, the course will not count towards the six course drop limit since the student is incurring an academic penalty.

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 summarized data 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. 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 policy 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 Early Alert Program at SFA.

Mental Health: SFASU values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
(1) SFASU Counseling Services
www.sfasu.edu/counseling
Tucker Building (Southeast corner of Raguet and East College streets)
936-468-2401
(2) SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp
Human Services Room 202
936-468-1041
Crisis Resources:
A complete list of mental health resources for students can be found at: https://www.sfasu.edu/info-for/current-students/mental-health-resources

More information about student wellness and support options can be found on the Health and Wellness Hub (https://www.sfasu.edu/thehub) and the Lumberjacks Wellness Network (https://www.sfasu.edu/lwn).

X. Bibliography:

A. Philosophy of research:

B. Quantitative research:

**C. Statistical theory:**
Hatcher, L. (2013). *Advanced statistics in research: Reading, understanding, and writing up data analysis results.* Shadow Finch Media.

**D. IBM SPSS:**


*Other:*


**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.