I. Course Description:

This course is designed to familiarize students with the basic principles and procedures in experimental data analysis. Research methods, emphasizing use of experimental control, and analysis of data for reporting experimental and non-experimental results in the psychological study of human behavior.

EPS 550: Quantitative Research Methods (3 credit hours) typically meets once per week for a 150-minute segment for 15 weeks, and also meets for a 2-hour final examination. Students have weekly reading assignments, complete three statistics assignments and weekly practice problems, complete one large research proposal, analyze and present mock research findings, and prepare for and take a midterm and final examination. These activities average at a minimum 6 hours of work each week to prepare outside of classroom hours.

II. Intended Learning Outcomes/Goals/Objectives (Program/Student Learning Outcomes):

The complete listing of the standards associated with the PLOs, SLOs, assignments, and assessments are located on the PCOE website.

This course reflects the following core values of the College of Education:

- 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
- Service that enriches the community

The mission of the 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.

The goals of this course are closely aligned to those of the PCOE, which is to prepare competent, successful, caring and enthusiastic professionals dedicated to responsible service, leadership, and continued professional and intellectual development. As a preliminary step in this process, the knowledge obtained in this course will enable candidates to develop the requisite knowledge, skills, and dispositions necessary for admission into the PCOE Teacher Certification Program.

This course also supports the mission of the Human Services Department.

Program Learning Outcomes:

PLO 1

Practical Knowledge
• Answer demonstrates a clear and precise understanding that school psychologists must be able to use assessment strategies to gather information and define current problem areas. Response addresses the need for assessing strengths and needs for individuals, groups, and systems.
• Answer provides at least one component or details suggesting that school psychologists must be able to use assessment strategies to gather information and define current problem areas, strengths, and needs for individuals, groups, and systems.
• Answer shows an insufficient understanding that school psychologists must be able to use assessment strategies to gather information and define current problem areas. Candidate’s oral defense provided no evidence to support knowledge in this domain.

PLO 1, 2, 5
Research and Program Evaluation

• Practical Knowledge, Content Knowledge and Application of Principles and Procedures
• Answer demonstrates a clear understanding of issues regarding the evaluation of research, translating research into practice, and understanding research design and statistics in sufficient depth to plan and conduct investigations and program evaluations for improvement of services.
• Response captures at least one primary strategy regarding the evaluation of research, translating research into practice, or a clear understanding of research design and statistics.
• Candidate’s response is insufficient with regard to the essential features of research, experimental design, and program evaluation. Candidate’s oral performance was likewise inadequate with regard to demonstrating research skills.

PLO 1, 5
Information Technology

• Practical Knowledge and Application of Principles and Procedures
• Response indicates clear understanding and enthusiasm for being familiar with and being able to evaluate the appropriateness of various technologies that impact the practice of their profession.
• Response provides at least two systems that show familiarity with technologies that impact the practice of their profession.
• Candidate’s response was insufficient in the identification and description of the critical features regarding this domain. Candidate’s oral defense was likewise inadequate with regard to demonstrating technological skills.

NASP Domains addressed by this course:

Domain 1: Data-Based Decision Making and Accountability
• School psychologists have knowledge of varied models and methods of assessment and data collection for identifying strengths and needs, developing effective services and programs, and measuring progress and outcomes.
• As part of a systematic and comprehensive process of effective decision making and problem solving that permeates all aspects of service delivery, school psychologists demonstrate skills to use psychological and educational assessment, data collection strategies, and technology resources and apply results to design, implement, and evaluate direct interventions, psychological services, and programs.
Domain 9: Research and Program Evaluation

- School psychologists have knowledge of research design, statistics, measurement, varied data collection and analysis techniques, and program evaluation sufficient for understanding research and interpreting data in applied settings.
- School psychologists demonstrate skills to evaluate and apply research as a foundation for service delivery and, in collaboration with others, use various techniques and technology resources for data collection, measurement, and analysis to support effective practices at the individual, group, and/or systems levels.

Domain 10: Legal, Ethical, and Professional Practice

- School psychologists have knowledge of the history and foundations of school psychology; multiple service models and methods; ethical, legal, and professional standards; and other factors related to professional identity and effective practice as school psychologists.
- School psychologists demonstrate skills to provide services consistent with ethical, legal, and professional standards; engage in responsive ethical and professional decision-making; collaborate with other professionals; and apply professional work characteristics needed for effective practice as school psychologists, including respect for human diversity and social justice, communication skills, effective interpersonal skills, responsibility, adaptability, initiative, dependability, and technology skills.

Student Learning Outcomes:

1. Explain the assumptions associated with univariate statistics and best practice in research methodology
2. Utilize SPSS software, and interpret research findings.
3. Discuss the advantages of univariate procedures and procedures based on randomization tests.
4. Test the assumptions associated with linear and multiple regression and various univariate tests.
5. Employ scatterplots for checking the assumptions of linear and multiple regression procedures.
6. Understand and discuss the general purpose and types of research questions pertaining to univariate analysis of variance, main effects, interactions among variables, specific comparisons and trend analysis, and effect size.
7. Identify and employ univariate analysis of variance and covariance tests in areas where they are most appropriate.
8. Identify and employ analysis of variance tests as they pertain to two-factorial designs, repeated measures designs, and various interaction effects.
9. Use small data sets to perform hand calculations of all basic statistical procedures discussed in this course and verify the accuracy of hand calculations using SPSS software.
10. Read, discuss, and analyze a wide range of recent and classic studies within the behavioral sciences and provide a critical review of findings from these studies.
11. Complete a review of literature on a novel research topic, develop a brief method and procedures section /research and null hypotheses/decision rules clearly stated.
12. Provide results section for the above in which you elaborate on what was accomplished, and a discussion section in which you provide a summary of the main findings.

III. Course Assignments, Activities, Instructional Strategies, use of Technology (Core Curriculum requirements addressed in course presented in Bold; NASP domains presented in italics):

Exams: In this course, there will be 2 exams based on the content presented in class lecture and the book. Exams will have true/false, multiple choice and essay items. (Communication; Empirical and Quantitative Skills) (1, 9, 10)
CITI Training Certificate*: Students will complete the required and supplemental Social-Behavioral and Educational Modules (see attached list). The certificate should be uploaded to the appropriate folder on D2L Dropbox. (Social Responsibility) (9)

Article Summaries*: Students will complete 3 article summaries. To complete each article summary, students will locate a peer-reviewed article of a quantitative study, read the article, and complete the Article Summary form. Article summaries will be submitted to the appropriate D2L Dropbox folder by Friday, 5 pm, each week they are due (see course schedule below). (Critical Thinking; Communication) (9)

Statistics Assignments*: Students will complete 3 assignments based on statistics problems. To complete each assignment, students will utilize SPSS to complete each problem. Completed assignments will be submitted to the appropriate D2L Dropbox folder by Friday, 5 pm, each week they are due (see course schedule below). (Empirical and Quantitative Skills) (9)

Book Practice Items*: Students will be required to complete weekly “practice items” from the covered chapters. These items will evaluate knowledge about the book and the rules and regulations of the latest version of the American Psychological Association manual. Practice items needs to be submitted to the appropriate D2L Dropbox folder by Friday, 5 pm, each week. A total of 11 assignments are available, while only the highest 10 grades contribute to the final points for the practice item assignments. (Critical Thinking; Communication) (10)

Research Planning Outline*: Students will design a research project targeting an area of interest, approved by the instructor. The planning outline should include a brief rationale for the study, a description of ideal participants and setting, defined variables, including measurement system, study procedures, and additional considerations/limitations. A template will be provided by the instructor. (Communication; Empirical and Quantitative Skills) (9, 10)

Research Project*: Students will write a 7-10 page research paper that includes a brief literature review, purpose, hypotheses, methods, and proposed data analyses sections (see rubric in appendices). The paper should follow APA format. Rough drafts of the paper will be due throughout the semester to provide feedback and assess progress (see schedule). The final paper should take into account feedback of all prior drafts and will include a completed results section. (Communication; Empirical and Quantitative Skills) (1, 9, 10)

Professional Presentation: Given mock data from their proposed research, students will complete a poster presentation of their project, including an abstract, introduction, methods, results, and discussion at the Quantitative Research Methods Research Event. This assignment is an extension of the Research Proposal assignment. (Communication; Empirical and Quantitative Skills) (1, 9, 10)

Participation and Attendance: Students will be required to participate in discussions. To receive credit for attendance and participation, a minimum of one question or comment will be required for each class session that includes a discussion. For all other class sessions, attendance will be taken within the first 15 minutes of the class beginning. Attendance and participation will count towards 5 % of final grades. (Personal Responsibility; Communication; Teamwork)

*Assignments will be submitted to the appropriate Dropbox folder on D2L. Late assignments will receive a 5 % reduction in possible points each day they are late. Day 1 begins the minute following the time assignments are due. Day 2 begins 24 hours following the time assignments are due, and so on. Any required drafts of the Research Project not submitted on time will result in the above schedule of point reduction on the final Research Project assignment. Assignments not submitted by midnight on the last day of finals will be graded and recorded as a 0.
**All research project activities will be in groups (Research Planning Outline, Research Project, Professional Presentation. Groups will be assigned by the instructor, and all group members will receive the same grade for each assignment, with the exception of the professional presentation. If any group member is absent from the professional presentation, he/she will receive a score of 0, unless otherwise approved by the instructor.**

IV. Evaluation and Assessments (Grading):

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Exams (50 points each)</td>
<td>100</td>
</tr>
<tr>
<td>CITI Training Certificate</td>
<td>20</td>
</tr>
<tr>
<td>Article Summaries (20 points each)</td>
<td>60</td>
</tr>
<tr>
<td>Statistics Assignments (20 points each)</td>
<td>60</td>
</tr>
<tr>
<td>Book Practice Items (10 points each)</td>
<td>100</td>
</tr>
<tr>
<td>Research Planning Outline</td>
<td>20</td>
</tr>
<tr>
<td>Research Project</td>
<td>100</td>
</tr>
<tr>
<td>Professional Presentation</td>
<td>50</td>
</tr>
<tr>
<td>Participation and Attendance</td>
<td>30</td>
</tr>
</tbody>
</table>

Total Points 540

V. Tentative Course Outline/Calendar:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Research Project Activities</th>
<th>Assignments and Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Syllabus/Introduction</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Week 2</td>
<td>The Scientific Method</td>
<td>Ch. 1</td>
<td>Initial discussion on research topic and library search – attend instructor office hours</td>
<td>Practice Items 1 due</td>
</tr>
<tr>
<td>Week 3</td>
<td>Ethical Research</td>
<td>Ch. 2; SFA IRB procedures</td>
<td></td>
<td>CITI training due Friday, 5 pm; Practice Items 2 due</td>
</tr>
<tr>
<td>Week 4</td>
<td>Research Design and Variables</td>
<td>Ch. 3</td>
<td>Finalize research topic and research question(s)</td>
<td>Practice Items 3 due; Article Summary 1 due</td>
</tr>
<tr>
<td>Week 5</td>
<td>Learning about a Population from a Sample</td>
<td>Ch. 4</td>
<td>Research Planning Outline due Friday, 5 pm</td>
<td>Practice Items 4 due; Article Summary 2 due</td>
</tr>
<tr>
<td>Week 6</td>
<td>Categorizing Participants</td>
<td>Ch. 5 and 6</td>
<td></td>
<td>Practice Items 5 and 6 due; Article Summary 3 due</td>
</tr>
<tr>
<td>Week 7</td>
<td><strong>Midterm Exam</strong></td>
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<td></td>
<td><strong>Midterm Exam</strong></td>
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<tr>
<td>Week 8</td>
<td>Examining Relationships between Variables</td>
<td>Ch. 7</td>
<td>Introduction due Friday, 5 pm</td>
<td>Practice Items 7 due; Statistics 1 due</td>
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<tr>
<td>Week 9</td>
<td>Scale Development and Prediction</td>
<td>Ch. 8 and 9</td>
<td>Methods due Friday, 5 pm</td>
<td>Practice Items 8 due; Statistics 2 due</td>
</tr>
<tr>
<td>Week 10</td>
<td>Single-subject Designs</td>
<td>Horner et al., 2005</td>
<td>Proposed Analysis section due Friday, 5 pm</td>
<td></td>
</tr>
<tr>
<td>Week 11</td>
<td>Between Subjects Designs</td>
<td>Ch. 10</td>
<td>Simulated data given</td>
<td>Practice Items 9 due; Statistics 3 due</td>
</tr>
<tr>
<td>Week 12</td>
<td>Within Subjects Designs</td>
<td>Ch. 12 and 13</td>
<td>Results section due Friday, 5 pm</td>
<td>Practice Items 10 and 11 due</td>
</tr>
<tr>
<td>Week 13</td>
<td>Thanksgiving Break</td>
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<tr>
<td>Week 14</td>
<td>Professional Presentations</td>
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<tr>
<td>Week 15</td>
<td>Course Wrap-Up</td>
<td></td>
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<td>Final Research Project due Friday, 5 pm</td>
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<tr>
<td>Week 16</td>
<td>Final Exam</td>
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<td>Final Exam</td>
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</tbody>
</table>

VI. Readings (Required and recommended—including texts, websites, articles, etc.):

**Required:**


SPSS (base) IBM SPSS Statistics Grad Pack Base V24.0 6 Month License for Windows or Mac

**Articles (provided by instructor):**


VII. Course Evaluations:

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 MySF A. 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.

VIII. Student Ethics and Other Policy Information: Found at http://www.sfasu.edu/policies/

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 (including the first 12 day attendance report) 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.

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, 936-468-3004 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/

Student Academic Dishonesty: Policy 4.1
Abiding by university policy on academic integrity is a responsibility of all university faculty and students. Faculty members must promote the components of academic integrity in their instruction, and course syllabi are required to provide information about penalties for cheating and plagiarism, as well as the appeal process.

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;
- 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;
- 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.

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.

Additional Information:

To complete Certification/Licensing Requirements in Texas related to public education and other professional settings, you will be required to:

1. Candidates must undergo a criminal history background check prior to clinical teaching and prior to employment as an educator. The public school campuses are responsible for completing the criminal background check. A person who is enrolled or planning to enroll in a State Board for Educator Certification-approved educator preparation program or planning to take a certification examination may request a preliminary criminal history evaluation letter regarding the person's potential ineligibility for certification due to a conviction or deferred adjudication for a felony or misdemeanor offense.

A Preliminary Criminal History Evaluation is a non-mandatory, non-binding evaluation of an individual's self-reported criminal history. In addition, the agency obtains your name-based Texas criminal history information. The service is provided to the requestor for a non-refundable fee. The requestor will receive an evaluation letter by email from agency staff advising of potential ineligibility for educator certification.
You are eligible to request a Preliminary Criminal History Evaluation if:

- You enrolled or planning to enroll in an educator preparation program or
- You are planning to take a certification exam for initial educator certification, and
- You have reason to believe that you may be ineligible for educator certification due to a conviction or deferred adjudication for a felony or misdemeanor offense.

You are not eligible for a preliminary evaluation of your criminal history if you do not have a conviction or deferred adjudication for a felony or misdemeanor offense.

In addition, you must complete the fingerprinting process when you apply for certification. Participation in the evaluation does not preclude you from submitting to a national criminal history review at the time you apply for your educator certification. Your criminal history will be reviewed and you may be subject to an investigation based on that criminal history, including any information you failed to submit for evaluation.

Additional information can be found at https://tea.texas.gov/Texas_Educators/Investigations/Preliminary_Criminal_History_Evaluation-FAQs/.

2. Provide one of the following primary ID documents: passport, driver's license, state or providence ID cards, a national ID card, or military ID card to take the TExES exams (additional information available at http://www.tx.nesinc.com/PageView.aspx?f=GEN_Tests.html. YOU must provide legal documentation to be allowed to take these mandated examinations that are related to certification/licensing requirements in Texas. If you do not have legal documentation, you may want to reconsider your major while at SFASU.

3. Successfully complete state mandated a fingerprint background check. If you have a history of criminal activity, you may want to reconsider your major while at SFASU.

For further information, contact the Office of Assessment and Accountability at 936-468-1282 or edprep@sfasu.edu.

IX: ZOOM Policy

Attending class via ZOOM is reserved for students who have been admitted to the program under “ZOOM Admission”. These students have stated this in their initial application materials and have been approved by the SPPF.

For this course:

- Students must attend courses in real-time, with face-to-face video conferencing via Zoom.
- Some courses and meetings may be required on campus. Students will be notified at the start of each semester dates they will be required to be on the Nacogdoches campus.
- Students will be responsible for all course assignments.
- In the event of a technology issue of the instructor's/university’s fault, the instructor will work with the student to ensure appropriate instruction is provided. If a technology issue of the student’s fault occurs, the course policy for class absences will be followed, according to the syllabus.
- In the event a non-approved student attends a class meeting via ZOOM, he or she will be counted absent and the attendance policy for this course, found on page 4 of this syllabus, will apply.
# Citi Modules

<table>
<thead>
<tr>
<th>Required Modules</th>
</tr>
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<tbody>
<tr>
<td>Belmont Report and Its Principles</td>
</tr>
<tr>
<td>Students in Research</td>
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<tr>
<td>Defining Research with Human Subjects</td>
</tr>
<tr>
<td>Assessing Risk</td>
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<tr>
<td>History and Ethical Principles</td>
</tr>
<tr>
<td>The Federal Regulations</td>
</tr>
<tr>
<td>Informed Consent</td>
</tr>
<tr>
<td>Internet-Based Research</td>
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<tr>
<td>Privacy and Confidentiality</td>
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<tr>
<td>Research with Prisoners</td>
</tr>
<tr>
<td>Research with Children</td>
</tr>
<tr>
<td>Research in Public Elementary and Secondary Schools</td>
</tr>
<tr>
<td>International Research</td>
</tr>
<tr>
<td>Research and HIPAA Privacy Protections</td>
</tr>
<tr>
<td>Vulnerable Subjects – Research Involving Workers/Employees</td>
</tr>
<tr>
<td>Conflicts of Interest in Human Subjects Research</td>
</tr>
</tbody>
</table>
Article Summary Form

Reference (APA):

Purpose/Research Questions:

What evidence is used to support research question/idea?:

Method:
  Subject(s):
  Setting(s):
  Dependent Variable(s):
  Independent Variable(s):
  Data Collection:
  Design:

Results:

How could we apply the findings in this article to our clinical work?:

What was something you found interesting?:

What was something you found confusing or unclear?:

What limitations did the authors describe? Possible solutions?:
Research Planning Outline

**Overall Rationale**
[Insert brief purpose of study/research questions here.]

Participants & Setting

Variables

\[ IV_1 = \]
\[ IV_2 = \]
\[ DV_1 = \]
\[ DV_2 = \]

Procedures

Considerations/Limitations to avoid
Research Project Instructions

7-10 pages, including title, references, tables and figures

As you are working on your proposal, keep in mind that its primary function is to demonstrate your ability to read and understand scholarly research and to use it to support your own ideas and opinions. Make sure you read the relevant parts of your textbook before beginning your research to help you put your topic in proper context.

Your paper should be typed and double spaced (times new roman style, 12 font, 1 inch margins across the paper) and should be organized as follows:

a. **Abstract**: (75-120 words), in a separate file
b. **Literature Review**: Discussion of the scientific evidence that led you to your study purpose and research questions. Here, you will discuss at least 6 articles that are relevant to supporting your research question(s). At least half of your articles should be published within the last 5 years.
   i. To effectively use the content of the 6 journal articles to support your ideas, be sure to clearly describe 1) the topic of the research being reported, 2) the research method used (and how these methods may have affected the results), 3) the researcher’s conclusions, and 4) future research questions raised by the research.
   ii. In the last paragraph of the introduction of your paper, summarize the research findings and briefly state how the research relates to the topic of your paper. In this same paragraph, you should clearly and concisely describe the purpose of your study, any research questions, and various SPECIFIC hypotheses on which you are basing your proposal.

c. **Methods**: Here you will present your participants, materials and procedures. Be specific – another researcher should be able to read your proposal and run your study.

d. **Data Analysis and Results**: Here you will present your experimental design, including a discussion of how this design appropriately answers your research questions and controls for threats to validity and a description of the statistics you will be using and their
appropriateness for your design and questions. Include a statement of how your data meets each of the assumptions of your analyses.

e. **Results:** Following analyses of the simulated data, write the results of your study. This section should be organized by research question and will include descriptive and parametric results.

f. **Discussion:** This section should include a summary of your study and results, the implications of your results, limitations to your study, and future directions for research.

g. **References:** All the books and journal articles used for your paper should be listed alphabetically in a bibliography at the end. **You should follow the style manual of the American Psychological Association (APA) - sixth edition.**

h. Any tables and figures should follow the style manual of the American Psychological Association (APA) - sixth edition.
# Research Project Grading Rubric

## Technical requirements /20

<table>
<thead>
<tr>
<th>Section</th>
<th>Below Expectations (1)</th>
<th>Meets Expectations (3)</th>
<th>Exceeds Expectations (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Usage</td>
<td>1. Inappropriately uses lay terminology when technical terminology is appropriate. 2. Uses technical terminology incorrectly.</td>
<td>1. Generally makes the appropriate choice of lay language or technical language. 2. Uses technical terminology correctly.</td>
<td>1. Technical language or lay language is appropriately selected. 2. Usage is precise, appropriate, parsimonious and enlightening.</td>
</tr>
<tr>
<td>Grammar</td>
<td>1. Grammatical errors substantially detract from the communication.</td>
<td>1. Grammatical errors are minimal and do not detract from the communication.</td>
<td>1. The document is free of grammatical errors.</td>
</tr>
<tr>
<td>Mechanics</td>
<td>1. Spelling, punctuation, or format errors are abundant.</td>
<td>1. Minimal spelling, punctuation, or format errors.</td>
<td>1. No spelling, punctuation, or format errors.</td>
</tr>
<tr>
<td>References</td>
<td>1. Inappropriate references. 2. Many errors in the form of citations in either the body or the reference section. 3. Many references in the body not cited in the reference section and vice versa.</td>
<td>1. Citations are appropriate, although not ideally matched to the content of the paper. 2. A few incorrect citations are noted in either the body or the reference section. 3. A few citations in the body do not match those in the reference section.</td>
<td>1. Citations are appropriate to the content of the paper in breadth, depth, and currency. 2. Citations are correctly cited in both the body and the reference section. 3. Citations match in the body and in the reference section.</td>
</tr>
</tbody>
</table>

## Content /60

<table>
<thead>
<tr>
<th>Section</th>
<th>Below Expectations (1)</th>
<th>Meets Expectations (3)</th>
<th>Exceeds Expectations (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content/Focus</td>
<td>1. Sources of ideas are inadequately documented. 2. No evidence of purpose or direction. Unclear theme. 3. Tables, figures and Appendices are not used correctly. 4. Ideas are not coherent in all the sections. 5. There is no link between the sections of the manuscript</td>
<td>1. Sources of ideas are mostly documented, some inferences needed. 2. Purpose and direction discernable. Theme is clear and partially limited. 3. Tables and figures and Appendices are used correctly but are not explained in text 4. Ideas are coherent but are not related to the hypotheses, results and conclusions. 5. There is a link between the sections of the manuscript but there is limited explanation about this link.</td>
<td>1. Sources of ideas clearly documented for further research. 2. Clear purpose and direction. Theme captures readers attention and sustains the paper. 3. Tables and figures and Appendices are used correctly 4. Ideas are coherent and are related to important areas of the study. 5. There is a link between the sections of the manuscript</td>
</tr>
</tbody>
</table>
### Interest/Communication/Creativity  /20

<table>
<thead>
<tr>
<th>Reasoning</th>
<th>Below Expectations (1)</th>
<th>(2)</th>
<th>Meets Expectations (3)</th>
<th>(4)</th>
<th>Exceeds Expectations (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Presentation is illogical, disordered. 2. Inferences are unsupported by evidence. 3. Ideas are presented without attention to synthesis.</td>
<td>(2)</td>
<td>1. Logical, orderly presentation is apparent. 2. Inferences are supported by evidence. 3. Effort is made to synthesize ideas from different sources.</td>
<td>(4)</td>
<td>1. The writing is logical, orderly, internally consistent, and well developed. Elegant. 2. Inferences are well supported by evidence. 3. Ideas are well synthesized, following an established outline.</td>
</tr>
<tr>
<td>Communication</td>
<td>1. Word choice is inappropriate. Informal, stilted, arcane, or idiosyncratic. 2. Incoherent organization fails to lead to the intended conclusion. 3. Lack of awareness of readers’ perspective. 4. Poorly formed sentences and paragraphs, with many awkward passages. 5. Heavy reliance on quotations or paraphrasing.</td>
<td>(2)</td>
<td>1. Word choice is acceptable for the intended audience. 2. Generally good although obvious organization. 3. Shows awareness of readers’ perspective. 4. Sentences and paragraphs relate to each other, though connections are occasionally remote or obscure. 5. Original writing supported with occasional quotations, paraphrasing.</td>
<td>(4)</td>
<td>1. Words are well chosen. Scholarly expository style 2. Organization is so excellent as to be unnoticed. 3. Appreciation of readers’ perspective is obvious. 4. Writing is flowing and easy to follow. 5. Limited quotations and paraphrasing well integrated with original writing.</td>
</tr>
</tbody>
</table>

**Comments:**

**Total Points: __________**
Presentation Rubric

**Visual Aid** /10
Successful use of poster to illustrate ideas

**Content** /20
Comprehensively explained, both written and orally:

- Overview
- Background
  - Reasons for study
  - Brief literature review
    - Should lead to your hypothesis
- Methods
  - Materials (constructs and operational definitions)
  - Design
  - Procedure
- Results
- Discussion

**Clarity** /10
Successfully explained proposed study

**Handling of questions** /10
Successfully responded to questions and concerns

**Total Points:** _________