

# ANSC 5303

## **Research Methods in Agrisciences**

Course Syllabus Spring 2025

#### Instructor

Carl Igo, PhD Email: carl.igo@sulross.edu
Office: RAS 110 Phone: 432-837-8260

Office Hours: virtual, by appointment

#### **Course Time and Location**

Credits: 3.0

Online via Blackboard: <a href="https://www.sulross.edu/bb/">https://www.sulross.edu/bb/</a>

# Required Materials (Available at the SRSU Bookstore or online)

Access to Blackboard 9 and SRSU email.

APA (2020). *Publication manual of the American Psychological Association*. (7<sup>th</sup> ed.). Washington, D.C.: Author.

Leedy, P.D. & Ormrod, J.E. (2019). *Practical research: planning and design*. (12<sup>th</sup> Ed). New York: Pearson.

### **Supplemental Materials:**

Articles, readings and videos as assigned – provided by instructor during the weekly learning module in which they are assigned.

**Course Description:** The primary focus of the course is to assist the student in understanding the processes necessary to conduct, use and evaluate relevant research. The course will concentrate on fundamental concepts and philosophy of research methodology, data management and associated statistical analyses. Emphasis will be on the procedures, guidelines and concepts to enable the student to successfully conduct, report and review research within the agricultural sciences.

Course Objectives: Upon successful completion of the course, you will be able to:

- 1. Critically analyze published research;
- 2. Develop a problem statement for a research study;
- 3. Conduct a literature review;
- 4. Define a population and sampling procedure;
- 5. Conceptualize and operationalize research variables;
- 6. Classify variables as independent and dependent;
- 7. Distinguish between research methods;
- 8. Select an appropriate research design for a research problem;
- 9. Select appropriate methodology for collecting data;
- 10. Select appropriate analyses for reporting data and developing conclusions.

**Course Syllabus:** Due to the organizational nature of the instructor, beyond this point, this syllabus is laid out in alphabetical order by topic. If, after reviewing the information presented here, you have questions about course access, assignments, policy etc. please do not hesitate to contact the instructor.

# Academic Expectations: According to SRSU Academic Regulations, students must:

- A. be regular and punctual in attending classes;
- B. be well prepared for classes;
- C. submit required assignments in a timely manner;
- D. take exams when scheduled;
- E. act in a respectful manner toward other students and the instructor and in a way that does not detract from the learning experience; and
- F. make and keep appointments when necessary to meet with the instructor.

In addition to the above items, students are expected to meet the additional course and behavioral standards as defined in this syllabus.

**Academic Integrity**: Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden. On all work submitted for credit by students at the university, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Academic Writing: In this course, you may utilize AI language models, including ChatGPT, as a resource to support your writing assignments. AI language models are powerful tools developed to generate text based on the input provided. It can provide suggestions, offer alternative phrasing, and help brainstorm ideas for your written work. While the AI language models can help refine your writing, it is important to remember that it is an AI system and not a substitute for your critical thinking and creativity. If you choose to use this tool, apply it as a supplement to your writing process and do not rely solely on its suggestions. Ultimately, you are responsible for the content and quality of your written assignment. Therefore, you should critically evaluate ChatGPT outputs for accuracy, potential bias, and relevancy. When utilizing AI language models, it is essential to ensure that your writing remains original and properly attributed, including citing outputs or text generated by ChatGPT. Please see the How to cite ChatGPT in APA Style resource. I encourage you to use AI language models to enhance your writing skills, experiment with its capabilities, and learn from its suggestions. If you have any questions or concerns regarding using AI language models for writing assignments, please discuss them with me. By acknowledging and understanding the appropriate use of AI language models, you can effectively incorporate this tool into your writing process, harnessing its potential to improve your written work while maintaining academic integrity and originality.

Accommodations for Students: Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Mary Schwartze, LPC, SRSU's Accessibility Services Director or Ronnie Harris, LPC Counselor at 432-837-8203, email <a href="maschwartze@sulross.edu/ronnie.harris@sulross.edu">mschwartze@sulross.edu/ronnie.harris@sulross.edu</a>. The Accessibility Services office is located on the first floor of Ferguson Hall – room 112; mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

Add /Drop Policy: This course will follow the University drop/add policy and timeline.

**Assignment Policy:** It is expected that assignments will be submitted on or before the specified due date. Assignments may be submitted after the due date and will be assessed a percentage penalty; submitted within 7 days = 15%; submitted 8-14 days = 20%; submitted 15 days & beyond = 30%. The last day to submit late/make-up assignments is the last class day of the semester: Wednesday, April 30 by 11:59 PM. Incompletes will only be assigned under extreme circumstances.

**Attendance Policy:** Class participants will be treated as mature individuals who have developed a sense of responsibility for their education. As such, class participants will be held accountable for all material presented for the course. In the case of emergency, students should contact the instructor as soon as possible after the emergency has been resolved.

**Collaboration:** University policy states that, unless otherwise specified, students may not collaborate on graded material. Any exceptions to this policy will be stated explicitly for individual assignments. If you have any questions about the limits of collaboration, you are expected to ask for clarification.

**Copyright Notice for Course Materials:** U.S. copyright laws protect this syllabus, course presentations, all Blackboard<sup>TM</sup> materials and any other course materials provided throughout this term. Students enrolled in the course may use materials for their own research and educational purposes within the Educational Fair Use policy of the U.S. Copyright Office. However, reproducing, selling or otherwise

distributing these materials in any manner or medium without written permission of the copyright owner is expressly prohibited.

Electronic video and/or audio recording is not permitted during class/lab unless the student obtains written permission from the instructor. If permission is granted, any distribution of the recording is prohibited.

**Course Andragogy:** The course is a distance-delivered course. Each student enrolled must log in to the course content through Blackboard. The instructor's role will be one of "guide on the side" rather than "sage on the stage." Students are responsible to involve one another in discussion and problem solving using the Blackboard discussion board. Discussion assignments and postings are an opportunity to engage your classmates and instructor in critical thinking and problem solving exercises.

**Course Climate and Respect:** It is my intent, as course instructor, that students from all backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and beyond the course, and that the multiplicity students bring to this course be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of all students. Your suggestions about how to improve the value of this course are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

We support a learning environment where individual and cultural differences are appreciated, recognized, respected and understood. We shall hold each other accountable to demonstrate diligence in recognizing and respecting differing behaviors, perspectives and worldviews. In addition, in scheduling assignments, I have attempted to avoid conflicts with major religious/cultural holidays. If, however, I have inadvertently scheduled a major deadline that creates a conflict with your religious/cultural observances, please let me know as soon as possible so that we can make other arrangements.

Criteria for written work: Unless specifically noted otherwise, all written work submitted should be typed in Microsoft WORD<sup>TM</sup>, double-spaced, in 12-point Times New Roman font, pages numbered, and have 1" margins on all sides. All work submitted should follow APA 7<sup>th</sup> edition guidelines for formatting and bibliographical citations. Please note that editing services are not provided in this course; submitted work will be closely evaluated for proper format. Feedback will focus on creative problem solving and conceptual development of ideas.

**Distance Education Statement:** Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the <a href="SRSU website">SRSU website</a>. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the <a href="student handbook">student handbook</a>.

#### **Evaluation Components:**

**Scholarly Reviews:** You will prepare three reviews of current (within past five years) research on a topic of your choice. Each research article must highlight a different research methodology and/or statistical analysis procedure. The source must be from a refereed research journal, be 2-3 pages in length (not counting reference page) and prepared according to APA 7<sup>th</sup> Ed for both organization and citation. The intention of these review papers is for you to examine current research as a means of enhancing your own knowledge as well as classmates' knowledge of research methodologies and the associated statistical analysis procedures.

**Quizzes:** Interspersed through the semester will be two assigned online quizzes focused on content and material covered within the preceding weeks.

*Comprehensive Final Exam:* The opportunity to showcase your acquired knowledge related to course content through completion of an online exam.

**Research Question, Problem Statement and Objectives:** Each student is expected to create a research question, a problem statement to highlight the need for the question to be addressed and 3-4 specific objectives that can be used toward answering the research question.

Weekly Discussion: While this course is being taught at a distance, students are expected to be active participants in the classroom web-discussion and exercises. The discussion board provides a venue to increase interaction and is used to replicate a traditional class-based discussion. To facilitate this discussion, the instructor will provide guiding questions or will ask for your questions related to course content. As in a traditional discussion format, students are encouraged to not only respond to questions, but also pose questions to the group and instructor. Active participation in this way increases not only your knowledge, but the knowledge of others participating in the course. You all bring experience and information to this class from which others can benefit. Therefore, all students will be required to participate in the weekly discussion board forums. Although points for this assignment are awarded based on student participation, not discussion content (i.e. there really are no right or wrong answers), please try to ensure your input and comments are both appropriate and applicable to the discussion topic. Additionally, basic courtesy is expected from all members of this course. Failure to be engaged in the sharing of ideas not only limits the value you gain from this course, but also that of others. \* Weeks run from Monday through Monday. You are expected to read/review the assigned material for the week and then by not later than 8:00 AM Wednesdays of weeks noted in course outline, you are expected to respond to the discussion questions or to submit at least three questions from the assigned topics. The nature of your questions should focus on concepts in need of further clarification. ADDITIONALLY, all class members are expected to substantively respond at least twice to classmates' questions by no later than 8:00 AM on Mondays following the initial posting. Please provide insightful remarks. Do not simply respond to a post by stating something like "I agree with you." Remember, the purpose of this is to generate robust conversations. Always respond to others' posts with decorum. If you disagree with something someone posts, this is ok, however, state your position and why you disagree. Let's refrain from personal attacks. Any posts that are deemed unprofessional will be removed and your grade will be affected.

COURSE ASSIGNMENTS	Point Value	<b>Due Date</b>
Scholarly Reviews		
• Review 1	100	Week 3
• Review 2	100	Week 7
• Review 3	100	Week 13
• Quiz 1	100	Week 6
• Quiz 2	100	Week 12
Research Question, Problem Statement & Objectives	200	Week 14
Weekly Discussion Forum	300	Weeks marked by * in schedule
Comprehensive Final Exam	200	May 7
Total Points	1200	

#### **Evaluation Scale:**

<u>Library Information</u>: The Bryan Wildenthal Memorial Library and Archives of the Big Bend in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, <u>library.sulross.edu</u>. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (<u>srsulibrary@sulross.edu</u>), or phone (432-837-8123).

**Plagiarism:** Paraphrasing or quoting another's work without citing the source is a form of academic misconduct. Even inadvertent or unintentional misuse or appropriation of another's work (such as relying heavily on source material that is not expressly acknowledged) is considered plagiarism. If you have any questions about using and citing sources, you are expected to ask for clarification.

# **Shared Expectations**

We all serve as educators from time to time and this course is designed to help you develop your expertise and professionalism as an adult educator. Therefore, the activities you will be required to complete work toward achieving this goal. In line with this, there are some expectations that I have of you, and conversely, there are some expectations that you should have of me. The expectations for this course are as follows:

### You can expect me to:

- Provide learning opportunities that advance your knowledge and development in agricultural education.
- Be available to answer questions and provide assistance related to the course.
- Be fair in my grading and assessment of your work.
- Provide you with timely, constructive feedback on your work.
- Enjoy this class!

#### I will expect you to:

- Complete all assignments thoroughly, in a timely manner.
- Look at each assignment as an occasion for you to learn, and make the most of every learning opportunity.
- Be honest and submit your own original work.
- Participate in class discussions and activities; this helps you as well as all of your classmates.
- Enjoy this class!

## **Student Learning Outcomes (SACSCOC)**

- 1. Students will apply statistical concepts and procedures;
- 2. Students will evaluate literature and references.
- 3. Students will demonstrate knowledge of research fundamentals and advanced concepts.

**Student Records:** All records related to this course are confidential and will not be shared with anyone, without a signed, written release. If you wish to have information from your records shared with others, you must provide written request/authorization to the instructor. This includes any requests for recommendations/references. Before giving such authorization, you should understand the purpose of the release and to whom and for how long the information is authorized for release.

Student Responsibilities: All full-time and part-time students are responsible for familiarizing themselves with the SRSU Student Handbook, the Graduate Catalog and for abiding by the University Rules and Regulations. Additionally, students are responsible for checking their Sul Ross email as an official form of communication from the University. Every student is expected to obey all federal, state and local laws and is expected to familiarize themselves with the requirements of such laws. Sul Ross State University expects all students to conduct themselves as honest, responsible and law-abiding members of the academic community and to respect the rights of other students, members of the faculty and staff and the public to use, enjoy and participate in the University programs and facilities.

**Student Wellness:** SRSU strives to create a culture of support and recognizes that your mental health and wellness are equally as important as your physical health. We want you to know it is OK if you experience difficulty, and there are several resources on campus to help you succeed emotionally, personally, and academically. Please know that if you choose to confide in me, I am required by the university to report to the Title IX Coordinator, as SRSU and I want to ensure you are connected with all the support the university can offer. You are not required to respond to outreach from the university if you do not want to do so. You can also make a report yourself, including an anonymous report, through the SRSU Title IX Report Form.

**Weekly Schedule:** This course will run weekly starting on Mondays and end on the following Monday at 8:00 AM. All assignments and discussion questions for the week, as noted in the course schedule, will be due no later than Mondays by 8:00 AM, unless otherwise noted.

# **Planned Course Schedule**

Dates	Topics / Learning Experiences	Readings & Assignments
Week 1 Jan 20-Jan 26	Teaching & Research Ideology; The Nature & Tools of Research	L&O Ch 1
*Week 2 Jan 27-Feb 2	What is the Problem?	L&O Ch. 2
*Week 3 Feb 3-Feb 9	Theoretical and Conceptual Framework for Research	Online Materials
*Week 4 Feb 10-Feb 16	Reviewing the Literature	L&O Ch. 3 Review 1 due
*Week 5 Feb 17-Feb 23	Planning the Research Project Ethical Issues	L&O Ch. 4
*Week 6 Feb 24-Mar 2	Writing the Proposal	L&O Ch. 5 Quiz 1
*Week 7 Mar 3-Mar 9	Descriptive Designs	L&O Ch. 6
*Week 8 Mar 10-Mar 16	Experimental Designs	L&O Ch. 7 Review 2 due
Mar 17-Mar 23	SRSU Spring Break	
Week 9 Mar 23-Mar 30	Quantitative Data Analysis Techniques	L&O Ch. 11 <b>Draft Ques., Prob., Obj due</b>
*Week 10 Mar 31-Apr 6	Qualitative Designs	L&O Ch. 8
Week 11 Apr 7-Apr 13	Mixed Methods & Participatory Designs	L&O Ch. 9, 10 <b>Quiz 2</b>
*Week 12 Apr 14-Apr 20	Analyzing Qualitative Data & Mixed Methods Data	L&O Ch. 12 Review 3 due
*Week 13 Apr 21-Apr 27	Results, Recommendations & Conclusions	L&O Ch. 13 Final Ques, Prob Obj due
Week 14 Apr 28-May 4	Last questions and Next Steps	
Week 15 May 5-May 7	Last Day to submit any assignments: <b>May 7 by 8:00 AM</b>	Final Exam due

# Other dates to put on your calendar:

January 20: MLK Day Holiday April 4: Course Withdrawal deadline

January 21: Deadline for spring registration April 11: Spring 2025 Graduation App'l Deadline

Payment Deadline April 30: Last regular class day of Sp '25 term

January 31: Course Drop Deadline May 9: Commencement Ceremony

March 31: Su/Fa Course Registration opens