Course Syllabus
AG 6321 – Research Methods

Instructor: Andrew P. Wright, Ph.D.
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Office: VIN 226, Vincent Building
Office Hours: Monday-Thursday, 3:00-4:00pm, or any time I am in my office with the door open.

Course Description
This course is designed to introduce graduate students to the process of planning and designing a research project. By the end of the class students should be able to. To this end, I have split the material you will learn into 3 parts:

• Part 1 focuses on the purpose of research and the important elements of a research proposal.
• Part 2 introduces students to experiments, observational studies, and surveys as methods of data collection.
• Part 3 explores the use of statistical methods to analyze data.

Meeting Time & Location
Where: Vincent Building, room 263
When: Tuesdays and Thursdays; 8:30 – 10:45 am

Required Technology, Skills, and Knowledge
I will rely on the course Blackboard page to deploy lecture materials, assignment rubrics, and other materials as needed. To successfully complete this course, students are expected to:

• Possess access to the necessary hardware required to view online materials, such as:
  o A computer or mobile device with a reliable internet connection, and
  o The ability to view videos from various sources and that use various formats; and,
• Possess basic web navigation skills.

There are no official prerequisites for this course; however, I expect graduate students enrolled in AG 6321 to either possess the following characteristics or to work on developing them during the semester:

1) Grit – It’s a long semester. People with grit are able to persevere when seeking to achieve long term goals. Grit has been found to be a better predictor of success than IQ.
2) Curiosity – Ask questions, seek knowledge. Don’t put yourself in a box by ignoring a course topic because, “you don’t see how you’ll ever use it.”
3) A Growth Mindset – Ability and intelligence is not fixed; it is developed. People with a growth mindset seek challenges, view effort as a path to mastery of content, are willing to learn from the criticism of others, and celebrate the successes of their peers.
Textbook & Required Materials
It is difficult to find a text book that 1) covers the breadth of material that we need to cover, 2) covers this material in depth, and 3) is geared toward the agricultural sciences. For the most part I will rely on class discussion to explore topics of interest; however, when possible I will post web links to videos and readings related to the material we will cover this semester.

You may find the following open education resource (i.e. it’s free) useful as a reference when we begin to discuss study designs and statistical analysis. The resource is a text book published by OpenStax™ titled *Introductory Statistics* (Illowsky & Dean, 2016). Students can gain access to the text on the [OpenStax™ website](https://openstax.org). I will also offer a link to the text on the course Blackboard page.

Course Learning Objectives
As your instructor I have established a set of learning goals and related objectives:

- **Goal 1:** Help students develop an appreciation for scientific inquiry.
- **Goal 2:** Help students develop a research proposal related to a topic they are interested in.
- **Goal 3:** Explain to students the importance of good design and methodology when conducting scientific research.

This list provides a general idea of what I want to accomplish this semester. A more detailed list of goals and objectives will be made available to students in class and on the course Blackboard page. Students’ progress toward these goals will be assessed through their performance on exams, presentations, and writing assignments.

Grading Policies
Your grade will be calculated based on the number of points you earn out of 500. The grading scale for the course is as follows:

- **A =** 450-900 points
- **B =** 400-449 points
- **C =** 350-399 points
- **D =** 300-349 points
- **F =** 0-299 points

You will earn points based on your performance on the following tasks:

- Exams: 200 points
- Presentations: 150 points
- Writing Assignments: 150 points

Exams
There are two exams scheduled for this course.

- The first exam will cover material related to the design of research study.
- The second exam will cover material related to the analysis of data.
- Each exam is worth 100 points. Exams are not cumulative.
• If you miss an exam and the absence is excused you may make up the exam on a different date that you and I agree on. If the absence is not excused you will not be allowed to make up the exam.
• If you are late to class on the day of an exam you may still take the exam, as long as no students have turned in their copy to me and exited the classroom. If you are late you will not be given extra time to complete an exam.

Presentations
During the course you will be required to give three presentations related to your research proposal.
• The first presentation will introduce your topic to the class; explain what you currently know about the topic; and, what you hope to learn from your research.
• The second presentation will focus on your use of a literature review to refine your topic; the conceptual framework that you are using; and, what study design you would use to conduct your project.
• In the third presentation students will present their final refined research topic; their final refined study design; and, the method of data analysis they intend to use.

I will provide students with a detailed set of expectations and a grading rubric for each presentation as we progress through the semester.

Writing Assignments
Each presentation will be accompanied by a written narrative. The purpose of the narrative is to: 1) provide me with more detail about your research topic, and 2) give students an opportunity to refine their writing skills. I will provide students with a detailed set of expectations and a grading rubric for each paper as we progress through the semester.

Attendance
Attendance is essential to perform well in this class. I expect students to attend class unless they have been excused beforehand. Furthermore, I expect students to arrive on time and prepared to participate in the lecture and discussion.

How I Take Attendance
I will maintain a record of every student’s attendance for each day of class. If I do not record that you were in class then you will be counted absent on that day, so if you come in to class late make sure you check in with me at the end of class.

Definition of an Unexcused Absence
An absence that is not related to a University event or is not approved by me beforehand is unexcused. I am willing to consider excusing any absence as long as you inform me of the absence and explain why it cannot be avoided. Please note that I am more likely to excuse an absence if you inform me prior to the start of class. Finally, please also note that consider does not mean accept.
Information Missed During an Absence
You are responsible for any information related to the class that you miss while absent. I am happy to answer any questions you might have, but I will not reproduce a lecture for you in my office.

ASU Policy on Religious Holy Days
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

Use of Cell Phones and Electronic Devices
Your cell phone may be left on but should be put away and silenced during lectures. If I see a cell phone out during an exam I will take up your exam and you will receive a failing grade for the exam. If you wish to use an electronic device to take notes during lectures you may do so; however, if I feel that your use of such a device is causing a distraction I will ask you to put it away.

Contacting Dr. Wright
Communication is an important skill that nearly all employers look for in new employees, and particularly in college graduates. Learning to communicate professionally is vital if you wish to remain employed in any career for very long. For this reason, when you contact me via email, please include a subject a, greeting, and a signature. For example, if you are experiencing a difficulty logging into Connect your email might look like this:

Subject: Missing class
Dear Dr. Wright,
I have been asked to step in and teach [course] on [date]. Could you provide me with a summary of what you plan for the discussion that day?
Thank you,
[Your Name]

Be advised that I may ask some follow up questions and your answers might determine how accommodating I am.

Academic Integrity and Misconduct
Angelo State University expects its student to maintain complete honesty and integrity in their academic pursuits. Students are responsible for reading and understanding the policies set forth in the Student Handbook.

Americans with Disabilities Act
Angelo State University is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services,
programs, or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu  
Houston Harte University Center, Room 112

Policies on Deviations from this Syllabus
While I hope I do not have to make any changes to the course policies or course schedule, there is always the possibility that special circumstances will arise that necessitate changes be made. If such a circumstance occurs then I will communicate it both in class, via Blackboard, and by email. Once announced, any such changes will supersede what is written in this syllabus.

Course Schedule
Below is an abbreviated version of the schedule for this course. Reading assignments, homework assignments, and all due dates will be posted to the course Blackboard page.

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug. 27-31</td>
<td>Course orientation &amp; begin Part 1</td>
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<tr>
<td>2</td>
<td>Sept. 3-7</td>
<td>Continue Part 1</td>
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<tr>
<td>3</td>
<td>Sept. 10-14</td>
<td>Continue Part 1</td>
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<td>4</td>
<td>Sept. 17-21</td>
<td>Finish Part 1</td>
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<td>5</td>
<td>Sept. 24-28</td>
<td>Student Presentations</td>
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<tr>
<td>6</td>
<td>Oct. 1-5</td>
<td>Begin Part 2</td>
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<tr>
<td>7</td>
<td>Oct. 8-12</td>
<td>Continue Part 2</td>
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<tr>
<td>8</td>
<td>Oct. 15-19</td>
<td>Finish Part 2; Student Presentations</td>
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<td>9</td>
<td>Oct. 22-26</td>
<td>Student Presentations; take first lecture exam</td>
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<tr>
<td>10</td>
<td>Oct. 29 – Nov. 2</td>
<td>Begin Part 3</td>
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<td>11</td>
<td>Nov. 5-9</td>
<td>Continue Part 3</td>
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<td>12</td>
<td>Nov. 12-16</td>
<td>Continue Part 3</td>
</tr>
<tr>
<td>13</td>
<td>Nov. 19-23</td>
<td>Continue Part 3; Thanksgiving holidays</td>
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<tr>
<td>Week</td>
<td>Dates</td>
<td>Topic</td>
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<td>14</td>
<td>Nov. 26-30</td>
<td>Continue Part 3</td>
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<tr>
<td>15</td>
<td>Dec. 3-7</td>
<td>Student Presentations</td>
</tr>
<tr>
<td>Finals</td>
<td>Dec. 13</td>
<td>Take exam</td>
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