RESEARCH METHODS
FORESTRY 510.001/610 (2 credit hours)

Instructor: Dr. Brian Oswald
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Office: FOR 201B
Office Hours: M,W, 9:00- 9:50; M-TH; 1-4.
In addition, open door policy and by appointment.
Department: Arthur Temple College of Forestry and Agriculture
Class Meeting time and place: T,R 11:00-11:50 Room 225 Forestry Building

Course Description: Development and analysis of statistical designs for forestry research. This course is designed to teach graduate students proper approaches to research methodologies, scientific proposal writing, oral and written presentation techniques, academic and professional ethics and responsibilities.

Program Learning Outcomes (PLOs):

The following course learning outcomes have been approved for the Forestry MS Programs in the Arthur Temple College of Forestry and Agriculture:

PLO1: Demonstrate proficiency in basic research design, relative to their field of study;
PLO2: Demonstrate proficiency in the process of reviewing scientific literature pertinent to their field of study;
PLO3: Demonstrate proficiency in basic statistical analysis, relative to their field of study;
PLO4: Demonstrate preparation to pursue a professional career and/or Ph.D. degree in their field of study;
PLO5: Demonstrate competency in oral and written communication skills.

Student Learning Outcomes:
1: Demonstrate an understanding of the experimental design and application in the development of research projects (M, PLO1; A PLO3).
2: Demonstrate the ability to obtain, synthesize and express scientific material in proper scientific format (M, PLO2).
3: Demonstrate an understanding of professionalism in an academic setting as preparation for a professional career in natural resources (A,PLO4).
4: Demonstrate the ability to critically think about scientific issues as well as communicate in both written and oral forms (A, PLO4, 5).

A – Advanced – course supports Program Learning Outcome by providing students with transitional, high level topic-specific information, activities, and opportunities that enable the students to apply their critical thinking and tactical skills to resolved increasingly challenging strategic situations.
M – Mastery – course supports Program Learning Outcome by providing students with opportunities to independently apply tactical and strategic planning skills to successfully accomplish real-world, non-academic management objectives. Completes students’ preparedness for entry-level professional activity accomplishment.

Ph.D. students must meet with instructor to determine additional requirements.

**References:**

2) SFA’s thesis guide. It may be downloaded from http://www2.sfasu.edu/graduate/CurrentStudents/thesisguide.html
3) Recommended timeline for completion of items required for degree It may be downloaded at http://forestry.sfasu.edu/UserFiles/File/Masters%20Forms/Academic%20Guidelines%20for%20Masters%20and%20Doctoral%20Students.pdf.

**Course Requirements:**

As much as possible Complete Thesis Proposal Draft: Ready to be given to me by Wednesday of last week of classes. If you already have a thesis proposal to your committee, a similar process will be expected for a research topic of interest, approved by your Research Committee Chair. The draft will be developed in sections, with different due dates as the semester continues. 40% of class grade.

Oral Presentation of Thesis proposal: Presented during last 2 weeks of classes and final exam period (depending on enrollment in class). 10% of class grade.

Poster outlining proposed thesis project. 10% of class grade.

Class Assignments as assigned. 20% of class grade. If none, then this grade contribution will be shifted to the above proposal.

**Course Calendar** This is a general outline of lecture materials and topics. Dates/topics are subject to change. This schedule is tentative and I reserve the right to adjust the schedule as needed. You will be kept aware of any changes – but this schedule below will serve as a starting point for lectures this semester.

Week of:
Week 1: Introduction to Class
Week 2-3: Professional Behavior and Responsibilities of Graduate Students in ATCOFA
Advisor student relationship, project and data ownership, professional ethics, publications/Authorship

Week 4-7: Proposals
Parts of proposal, proposal development, literature review development, plagiarism, etc.

Week 8-11: Experimental Design and Sampling Design
Various designs and sampling techniques

Week 12-15: Oral and Poster Presentations
Approaches, figures vs maps, methodology for creating tables
Poster creation
Recommendations for oral presentations with powerpoint

Grading Policy:
Participation and attitude will be used on borderline cases. I will make every effort to return assignments within 1 week of the due date. Because I do travel as part of my faculty responsibilities, I may not be able to reach these goals. Since the weight of each assignment is listed, a student should be able to determine their own performance in the class. **Do not expect me to do this for you!**

No late assignments will be accepted. Each student must send me an electronic copy of each assignment on or before the due date, as well as turning in a hard copy.

Attendance Policy:
Class attendance is expected except for valid excuses. Students are expected as part of their responsibilities to complete the on-line course evaluation via MySFA.

**Academic Integrity (A-9.I)**
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) 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 your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)
Cheating or plagiarism will result in at least a “zero” on the assignment in question, and possibly an “F” for the course. Students are urged to make sure they do their own work, make sure the papers they write use quotes only when necessary, are cited correctly, and most importantly, are in their own words!

SFA Policy A-9.1 defines what constitutes cheating and plagiarism. While the policy does appear to allow for the cutting and pasting of information from a published source as long as proper credit is given, those actions will not be allowed in the thesis proposal unless written approval by your Research Committee Chair is provided to me. Each proposal must be written so that the words are those of the student.

Withheld Grades Semester Grades Policy (A-54)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, 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. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Students with Disabilities
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 / 468-1004 (TDD) 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/](http://www.sfasu.edu/disabilityservices/).