Forestry 463 – Advanced Hydrologic Sampling and Analysis
SPRING, 2020
COURSE SYLLABUS

Professor: Matthew McBroom, Ph.D, C.F.
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Phone: 468-2313
Email: mcbroommatth@sfasu.edu
Office Hours: MWF 9:00-11:00; T TH 9:00-10:00; Others by Appointment

Class Schedule: TR 8:00-8:50 – Lecture, Forest Hydrology
TR 11:00-11:50 – Lecture, Environmental Hydrology
T 12:30-3:20 – Lab, Forest Hydrology
R 12:30-3:20 – Lab, Environmental Hydrology

Class Meeting Place: FORL 109D

Course Number & Title

FORESTRY 463 – Special Problems in Hydrologic Sampling and Analysis
3 Credit Hours
Classroom: FORL 109D
Meeting times: TBA

Course Materials (Required) –
There is NO text required for this course.

Course Description

1. FOR 463 – Special Problems in Hydrologic Sampling and Analysis – Three semester hours. Study of procedures used in the sampling and analysis of water samples. Pre-requisite: all Forestry core courses through 300 level.

This course will enhance student understanding of water sampling procedures used for TCEQ and EPA reporting techniques. Required field sampling trips and QA audit.
**Program Learning Outcomes** (This is not a General education Course): Forestry 409 is one of the forestry core courses required of all forestry majors and thus competency is required. A minimum grade of a “C” must be attained or the course will have to be repeated. The course is designed to address the following Program Learning Outcomes, as given in the BSF Program Matrix:

1. Demonstrate understanding and competency of forest ecology and biology;
2. Demonstrate understanding and competency in the measurement of forest resources;
3. Demonstrate understanding and competency in managing forest resources;
4. Demonstrate understanding and competency of forest resource policy, economics, and administration.
5. Demonstrate understanding and competency in oral and written communication skills.

The above PLOs are also recognized as vital components by the Society of American Foresters, the program’s accrediting agency.

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1. A – Advanced – FOR409 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.

**Student Learning Outcomes**: Upon successful completion of this course, the student will:

Understand fundamental principles of the generation and movement of water, and subsequent soil, and nutrients movement in a forested watershed system (PLO #1 and 3);

Understand basic watershed instrumentation, measurements, and research techniques (PLO #1 & 2);

Develop an understanding of how water resource issues effect natural resource management decisions economics, and policies. (PLO #3 and 4);

Demonstrate an understanding of basic concepts in watershed protection, enhancement, and rehabilitation and the ethical implementation thereof. (PLO #4)

Have demonstrated competency in oral and written communication skills (PLO #5).

**Supplemental References:** See D2L Course References Section, and:

4. [https://video.ysi.com/exo-sonde-overview](https://video.ysi.com/exo-sonde-overview)
5. [https://tws.tamu.edu/online-training-course/](https://tws.tamu.edu/online-training-course/)
COURSE EVALUATION

Grading Philosophy: I expect senior-level natural resource professionals to be committed, self-motivated and enthusiastic about their chosen profession and the proper and ethical practice thereof. The grading system for this course is designed to provide each student with the opportunity to demonstrate his or her mastery of the subject matter.

Course Grades: Final course grades will be assigned as follows:
- 4 Field Sampling Events- complete pre-and post-calibration of equipment. Proper COC form requirements. Sample collection and measurements evaluated along with sample handling requirements met. (100 points each)
- 2 lab and field training events (50 points each)
- 1 field audit by TWRI and TSSWCB personnel (100 pts)

Final course grades will be assigned as follows:
- A – Student earns 90-100% of possible points.
- B – Student earns 80-89% of possible points.
- C – Student earns 70-79% of possible points.
- D – Student earns 60-69% of possible points.
- F – Student earns 59% or less of possible points.

No curves will be given.

Mail: Please check your SFA email account regularly. Email will be an official tool for communicating the important reminders, announcements, and further assignment directions.

Reports: Each student must work faithfully on his/her problem exercises, lab reports, or other assignments. Copying results from someone else will result in a zero grade for both reports. All assignments should be handed in on or before the deadline, no excuses. All reports must be typed, in double space, with an attached cover sheet. Reports must be written in a professional manner, free from typographical, spelling, and grammatical errors. For problem exercises, attach calculations as an appendix if necessary. Lab reports will typically be due 1 week after they are assigned, at the beginning of the next lab meeting time.

Attendance: Course attendance is required. More than 4 unexcused absences from lecture will result in the deduction of 10 points from the final average (1 letter grade). Lectures and lab exercises will start promptly at their assigned times. Tardiness is unprofessional and will not be tolerated. Tardiness may result in your being left behind on lab field trips, receiving a zero grade for that assignment. Unexcused absences from lab result in a 0 grade for that lab report. The student will be expected to accumulate a great deal of information during this course. New material builds on material from previous lectures so that absences will result in a student falling behind. Excused absences include participation in University-sponsored events, health problems, or family emergencies. Documentation for excused absences must be provided. Notification of planned excused absences should be provided. Make-up work will be accepted for a maximum of 2 weeks following an excused absence.

http://www.sfasu.edu/upp/pap/academic_affairs

Student Academic Dishonesty Policy (4.1) 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/4.1-student-academic-dishonesty.pdf
**Course Grades Policy (5.5):** 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. Please read the complete policy at [http://www.sfasu.edu/policies/5.5_course-grades.pdf](http://www.sfasu.edu/policies/5.5_course-grades.pdf)

**Academic Accommodation for Students with Disabilities Policy (6.1):** 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/)

**Responsible Use of Technology:** It is expected that all students will only use cell phones, PDAs, laptop computers, MP3 players and other technology outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music or using a laptop computer for matters unrelated to the course may be grounds for dismissal from class or other penalties.

**Acceptable Student Behavior:** 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 (see the Student Conduct Code, policy 10.4). 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 prohibition 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. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed. Please read the complete policy at: [http://www.sfasu.edu/policies/student-code-of-conduct-10.4.pdf](http://www.sfasu.edu/policies/student-code-of-conduct-10.4.pdf)