Water Resources Management
ENV 4307.001
FALL, 2021

COURSE SYLLABUS

Professor: Matthew McBroom, Ph.D, C.F.
Office: 104 Forest Laboratory Building
Phone: 468-3301
Email: mcbroommatth@sfasu.edu
Office Hours: MW 8:00-9:00, 10:30-12:00, Others by Appointment

Class Schedule: MW 9:00-9:50 – Lecture, Forest Hydrology
   MW 1:00-3:50 – Lab, Forest Hydrology
   M 6:00-8:50 – Water Resources Management

Class Meeting Place: FORL 103

COURSE DESCRIPTION

ENVR 4307 – Water Resources Management. 3 semester hours, This survey course will examine basic principles of hydrology and how society is involved in managing the hydrologic cycle and water resources.

Required Textbooks:
Program Learning Outcomes
1. Demonstrate competency in environmental assessment;
2. Demonstrate understanding in environmental management;
3. Demonstrate understanding in environmental policy and professional ethics;
4. Demonstrate competency critical thinking communicated through effective scientific written reports and oral presentations.
5. Demonstrate preparation to pursue a professional career and/or graduate degree programs.

Please list each course in the program and indicate how it supports the Program Learning Outcomes for the identified program.

<table>
<thead>
<tr>
<th>B.S. Environmental Science Program Learning Outcomes</th>
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<tbody>
<tr>
<td><strong>Proficiency Levels</strong></td>
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<tr>
<td><strong>Course</strong></td>
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<tr>
<td>ENVR 4307</td>
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1. A – Advanced – ENVR 5307 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:** By the completion of this course, the student should have:
1. An understanding of the hydrologic cycle and hydrologic processes.
2. An understanding of how society’s offstream and instream water uses can affect hydrologic processes and aquatic ecosystems.
3. An understanding of water quantity and quality law and policy and of basic water resource economics.
4. A broad understanding of how water resource issues should inform ethical natural resource management decisions and policies.
5. The ability to communicate written and orally these understandings.

**Tentative Environmental Science 4307 Lecture Schedule.**

<table>
<thead>
<tr>
<th>Class Meeting</th>
<th>Lecture Topic</th>
<th>Book Chapter</th>
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<tbody>
<tr>
<td>8/23</td>
<td>Water Development History</td>
<td></td>
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<tr>
<td>8/30</td>
<td>Water Basics/Water Cycle</td>
<td>1-2</td>
</tr>
<tr>
<td>9/6</td>
<td>Surface Water Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>9/13</td>
<td>Surface Water Quality</td>
<td>4</td>
</tr>
<tr>
<td>9/20</td>
<td>Ground Water</td>
<td>5</td>
</tr>
<tr>
<td>9/27</td>
<td>Aquatic Ecosystems</td>
<td>6</td>
</tr>
<tr>
<td>10/4</td>
<td>Water and Health – Field Trip Sam Rayburn (10/15?)</td>
<td>7</td>
</tr>
<tr>
<td>10/11</td>
<td>Potable Water and Wastewater Treatment - <strong>Midterm</strong></td>
<td>8</td>
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<tr>
<td>10/18</td>
<td>Water Demand Planning and Management</td>
<td>9</td>
</tr>
<tr>
<td>10/25</td>
<td>Water Economics</td>
<td>10</td>
</tr>
<tr>
<td>11/1</td>
<td>Water Conflict, Law, and Governance</td>
<td>11</td>
</tr>
<tr>
<td>11/8</td>
<td>Virtual Water / Oral Presentations</td>
<td>12</td>
</tr>
<tr>
<td>11/15</td>
<td>Future of Water / Oral Presentations</td>
<td>13</td>
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<tr>
<td>11/22</td>
<td><strong>Thanksgiving Holiday</strong></td>
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<tr>
<td>11/29</td>
<td>Oral Presentations/Papers Due</td>
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<tr>
<td>12/6</td>
<td><strong>Final Exam</strong></td>
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Lecture schedule is subject to revision.
Field Trips – We have a scheduled field trip on Friday, October 15 (8-3 p.m.) to Sam Rayburn Dam to see water resources management in action at the largest reservoir in Texas.

COURSE EVALUATION

Grading Philosophy: I graduate natural resource professionals to be committed, self-motivated and enthusiastic about their chosen profession and the proper and ethical practice thereof. You are to the point in your educational career where you should be self-learners, with the instructor acting more as facilitator. 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:
1. Midterm Exam, 100 points.
2. Comprehensive Final Exam, 100 points.
3. Term Paper, 100 points.
4. Presentation of Paper Topic, 50 points.
5. Class Participation/case studies, 50 points.

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 the official tool for communicating the important reminders, announcements, and further assignment directions. Grades will be posted on Brightspace.

Reports:
Each student must work faithfully on his/her problem exercises, lab reports, or other assignments. Copying results from someone else (even from an earlier semester) will result in a zero grade. 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. 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/policies/class-attendance-6.7.pdf

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/student-academic-dishonesty-4.1.pdf](http://www.sfasu.edu/policies/student-academic-dishonesty-4.1.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/course-grades-5.5.pdf](http://www.sfasu.edu/policies/course-grades-5.5.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, laptop computers, 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)

**Mental Health and Wellness**
SFA values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students' mental health and wellness. Many of these resources are free, and all of them are confidential.

**On-campus Resources:**
SFA Counseling Service  
www.sfasu.edu/counselingservices  
Rusk Building, 3rd Floor 936.468.2401  
SFA Human Services Counseling Clinic  
www.sfasu.edu/humanservices/139.asp  
Human Services, Room 202 936.468.1041  

**Crisis Resources:**
Burke 24-hour crisis line: 1.800.392.8343S  
Suicide Prevention Lifeline: 1.800.273.TALK (8255) Crisis Text Line: Text HELLO to 741-741
IT'S IN THE SYLLABUS

This message brought to you by every instructor that ever lived.

WWW.PHDCOMICS.COM