WATR 5312, Section 001
Water Laws, Rules, and Policy (3 credit hours)
Spring 2020, TR 5:30 – 6:45 p.m.

Contact Information: Dr. Rudolph Rosen
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Fax: 210-784-2299

Office Hours: My office is located in the Science and Technology Building (ST), Room 349-C.
Hours: TR, 3:30 – 5:15 p.m., or by appointment at other times. Feel free to email and leave a message (Rudy.Rosen@tamusa.edu) so that we can get together.

Required Materials:

Textbook: Reading assignments will be made throughout the course. Reading or video materials will be provided at no cost to students or will be available available on the internet.

Course Description: The course, Water Laws, Rules, and Policy, provides an introduction to local, state, and federal laws, rules, regulations and policies relevant to the science and management of water and associated water resources, with an emphasis on learning about practical application and professional practice through lectures by and discussion with practicing professionals in water-related industries. Students will receive an introduction to the history and function of water laws, rules, and policies and how they are created, including the roles of the three branches of government and the public. Relevant U.S. and Texas laws, rules, and policies governing water resources will be reviewed and evaluated in detail, including the Clean Water Act, Safe Drinking Water Act, Endangered Species Act, and National Environmental Policy Act. Students will examine federal, state and local approaches to water allocation, water rights, pollution control and water resource management. Students will explore the challenges of law making and regulatory processes, and may discuss alternative strategies for water pollution control and resources management, water ownership, water sustainability, voluntary approaches, real-time information feedback, application of new technologies applications, and economic incentives and other market-based mechanisms. Students will become familiar with the political environment within which water laws and public policy are created, including the roles of advocates, consumers, elected officials, water-related boards and commissions, shareholders, and other influencers.

Learning Outcomes: The course, Water Laws, Rules, and Policy will familiarize students with the basic principles of federal, state, and local water laws, rules, and policies as described in assigned reading materials. The course will expand on that knowledge by inviting federal, state, and local water agency officials, and water law and policy experts
from non-governmental institutions to provide guest lectures and invite discussion with students on current events and job-related experience in the subject area. Specifically:

a. Students will demonstrate the ability to communicate information about federal, state, and local water laws, rules, and policies through oral and written formats.

b. Students will be able to use and understand the literature of federal, state, and local water laws, rules, and policies.

c. Students will gain a familiarity with core concepts of federal, state, and local water laws, rules, and policies.

d. Students will meet and have discussions with practicing professionals, gain experience in current topics and understandings, and complete research and investigations on topics associated with federal, state, and local water laws, rules, and policies.

Course Requirements:

Attendance… Tuesdays will typically be lecture/discussion days based on reading assignments. Thursdays will typically be discussion days involving a lecture presentation by and discussion with a practicing professional in the area of federal, state, or local water laws, rules, or policies. This schedule may be altered to meet schedules of invited practicing professionals. Students are expected to attend all lectures and come prepared for discussions.

Literature Discussions… Tuesdays will typically be a review/lecture and discussion of assigned reading materials. Thursdays will typically be discussion days involving a lecture presentation by and discussion with a practicing professional in the area of federal, state, or local water laws, rules, or policies. This schedule may be altered to meet schedules of invited practicing professionals. In some instances on Thursdays, we will discuss a paper or other assignment of student research including reading, viewing, or other in-depth student research on a federal, state, or local water law, rule, or policy topic. All students will be graded on discussion contribution, and as such attendance and participation during discussions is mandatory, and discussion contribution will be reflected in the grade (see course grading, below).

Course Grading: Course grades will be based on the percentage of points earned from a 300 point total (90%+ = A, 80%-89% = B, 70%-79% = C, 60%-69% = D) Typically, grade curving is not used in this course; if a grade curve is used, it would only be applied at the very end of the course, after all assessments are scored.

The 300 points possible in the course are broken down as follows: there will be two written exams, i.e., one mid-term exam worth 100 points (tentatively scheduled during the general period for mid-terms), a final exam worth 100 points (subject to and scheduled on the university final exam schedule), and 100 points for discussion via contributions to, and leading discussions. Students who substantively participate in or lead discussion will receive a maximum of 4 points per class session.

Mid-term and final exam questions will be in one of the following formats: fill in the blank, matching, multiple choice, or short essay. Exams will be based on lectures by instructors and
guest lecturers, assigned readings or videos, and discussions during class, including discussions with practicing professionals. Because grading will, in part, be based on presentations given and discussions held during class, students are strongly advised to take notes during class.

Policies:

1) *No make-up exams* will be given without approval before a scheduled exam. Unexcused, missed exams, receive a score of zero.

2) Having more than two unexcused absences will lower the discussion score by 5 points for each additional unexcused absence.

3) Use of electronic devices (phones, computers, etc.) is not allowed unless required as part of instruction or unless permission has been granted. Use of such devices for voice, text, or internet applications not related to class requirements during a lecture is unprofessional and rude.

4) Academic integrity is expected of all students at all times (see current Texas A&M University – San Antonio academic catalog). Make sure you take care of all personal needs (e.g., bathroom, etc.) before exams. Leaving the room during an exam for any reason ends the exam for you.

5) **Attitude and perseverance are everything!** Have a great attitude! I hope to write letters of recommendation for students with great attitudes. Performance is more than just about grades. No one wants to work with someone with a bad attitude, not even one with great technical ability.

Outline of Topics by Tentative Schedule
(Class schedule is subject to change, possibly with minimal advance notice, to accommodate practicing professional speaker scheduling and unexpected events.)

<table>
<thead>
<tr>
<th>Week</th>
<th>Class Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Introduction to the Course, Assignments, Expectations, and Opportunities</td>
</tr>
<tr>
<td>1b</td>
<td>Overview: The Basics of Making Laws, Rules, Regulations, Policies, Treaties, and More</td>
</tr>
<tr>
<td>2a</td>
<td>Overview: Federal and Texas State Water Laws, Policies, and Doctrines</td>
</tr>
<tr>
<td>2b</td>
<td>The Clean Water Act (CWA)</td>
</tr>
<tr>
<td>3a</td>
<td>CWA: Water Conservation in Practice in San Antonio</td>
</tr>
<tr>
<td>3b</td>
<td>CWA in Practice: Wetlands Protection by Sec 404(h) Veto</td>
</tr>
<tr>
<td>4a</td>
<td>CWA in Practice: Local Application for Urban Watershed Planning in San Antonio</td>
</tr>
<tr>
<td>4b</td>
<td>Safe Drinking Water Act</td>
</tr>
<tr>
<td>5a</td>
<td>Safe Drinking Water Act in Practice</td>
</tr>
<tr>
<td>5b</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>6a</td>
<td>National Environmental Policy Act (NEPA)</td>
</tr>
<tr>
<td>6b</td>
<td>NEPA in Practice: How to Win Environmental Battels and Lose the War</td>
</tr>
<tr>
<td>7a</td>
<td>Endangered Species Act (ESA)</td>
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<tr>
<td>7b</td>
<td>ESA in Practice: Edwards Aquifer Recovery Implementation Program</td>
</tr>
<tr>
<td>8a</td>
<td>Environmental Justice and Water Laws</td>
</tr>
</tbody>
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Midterm Exam

9a Texas Water Rights - Laws/Rules/Policies
9b Water Rights in Practice: Groundwater Conservation Districts, the Constitution and the Courts
10a Texas Groundwater Laws/Rules/Policies
10b Texas Water Development Board in Practice: The Regional Planning Process and SWIFT
11a Texas Water Protection Laws/Rules/Policies
11b Texas Commission on Environmental Quality in Practice: Keeping Water Clean in a Dry State
12a Edwards Aquifer Laws/Rules/Policies
12b Edwards Aquifer Authority in Practice: Model Groundwater Protection by Court Order
13a Texas River Systems Laws/Rules/Policies
13b San Antonio River Authority in Practice: Managing Flood, Drought, Agriculture, and Growth
14a Defense Department Water Rules/Policy Requirements
14b Defense Department in Practice: Training for War in the Edwards Aquifer Recharge Zone
15a Class Project Presentations: Waters of the US
15b Semester Review

Laboratory Attendance Policy  Laboratory courses are unique to your education in that they will provide you with hands-on opportunities to gain the skills and critical thinking processes inherent to the study of biology. For these reasons, we have a strict attendance policy:

- Attendance is mandatory
- If you miss more than 3 labs for whatever reason (excused or not) the maximum score you can earn for the laboratory section of a course is 50%.
- If you miss a lab section for a university excused absence, you may attempt to make up the lab in another lab section if the following criteria are met and directions followed: a) the absence is considered a university excused absence and was determined to be one by your primary instructor b) you must contact via e-mail both your instructor and the instructor of the section you would like to attend c) you must receive written confirmation that you are able to make up the lab. If you do not receive written confirmation, you will not be allowed to make up the lab.

Academic Accommodations for Persons with Disabilities: The Americans with Disabilities Act Amendments Act (ADAAA) of 2008 and the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights protection for persons with disabilities. Title II of the ADAAA and Section 504 of the Rehabilitation Act require that students with disabilities be guaranteed equal access to the learning environment through the provision of reasonable and appropriate accommodation of their disability. If you have a diagnosed disability that may require an accommodation, please contact Disability Support Services (DSS) for the coordination of services. DSS is located at the Main Campus on the 2nd floor of the Central Academic Building in suite 210. The phone number for DSS is (210) 784-1335 and email is dsupport@tamusa.edu.
**Academic Dishonesty** is any act, or attempt, which gives an unfair advantage to the student. Academic dishonesty includes, but is not limited to – Plagiarism-Cheating-Lying-Bribery. As a member in an academic community, students at Texas A&M University - San Antonio are expected to exhibit a high level of honesty and integrity in their pursuit of higher education, be mature, be self-directed and be able to manage their own affairs. Students who are unwilling to abide by these basic expectations will find themselves facing academic and/or disciplinary sanctions. Students are expected to share in the responsibility and authority with faculty and staff to challenge and make known acts that violate the Texas A&M University - San Antonio Code of Conduct. Texas A&M University - San Antonio faculty have the discretion to impose grade penalties as deemed necessary and are **obliged to and will report** any form of academic dishonesty. For more information on the process of reported academic misconduct, please refer to [http://www.tamusa.edu/studentengagementsuccess/StudentRightsAndResponsibilities/Academic-Misconduct/index.html](http://www.tamusa.edu/studentengagementsuccess/StudentRightsAndResponsibilities/Academic-Misconduct/index.html)

Academic Dishonesty falls under Acts of Dishonesty in the Student Handbook’s Code of Conduct. University policy prescribes serious consequences for acts of academic misconduct including, but not limited to, a grade of ‘F’ on the particular paper or assignment or a failing grade in the course. Also, a referral may be issued to the Office of Student Rights and Responsibilities where the sanctions can vary up to possible expulsion from the University. Considering the potential consequences of academic misconduct, it is obviously in students’ best interests to avoid even the appearance of such behavior. If you are ever unclear whether a specific act might constitute academic misconduct, please contact your instructor for an assessment of the situation. All student term papers and other written assignments are subject to analysis by anti-plagiarism software.

**University Email Policy and Course Communications:** All correspondence between professors and students must occur via University email accounts. You must have your Jaguar email account ready and working. If it is not working, contact the help desk at sahelp@tamus.edu or at 210-784-HELP (4357). If you don’t hear back within 48 hours, contact them again. They have a lot of requests during the first part of the semester, so you may need to follow up with them.

**Academic Learning Center:** All currently enrolled students at Texas A&M University-San Antonio can utilize the Academic Learning Center for subject-area tutoring. The Academic Learning Center is an appointment based center where appointments are made through the Navigate platform. Students access Navigate through Jagwire in the Student Services tab. The Center is active on campus outreaching to students to highlight services offered. You can contact the Academic Learning Center by emailing tutoring@tamusa.tamus.edu or calling (210)-784-1332. Appointments can also be made through JagWire under the services tab.

**Counseling Resources:** As a college student, there may be a time when personal stressors interfere with your academic performance and/or negatively impact your daily functioning. If you or someone you know is experiencing life stressors, emotional difficulties, or mental health concerns at A&M-SA, please contact the Office of Student Counseling & Wellness Services (SC & WS) located in Modular C Room 166 (Rear entrance) or call 210-784-1331 between the hours of 8:00 AM and 5:00 PM. All mental health services provided by SC & WS are free, confidential
(as the law allows), and are not part of a student’s academic or university record. SC&WS provides brief individual, couples, and group therapy, crisis intervention, consultation, case management, and prevention services. For more information, please visit www.tamus.edu/studentcounseling.

In a crisis, please walk-in to the SC & WS services between 8:00 AM and 5:00 PM to be seen by a licensed clinician. After hours, please contact UPD at 911 or text “HOME” to 741-741 24/7/365 to connect with a trained crisis counselor. The National Suicide Prevention hotline also offers a 24/7/365 hotline at 1-800-273-8255

**Emergency Preparedness:** JagE Alert is Texas A&M University-San Antonio’s mass notification. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email and/or phone call with instructions and updates. To register or update your information visit: https://tamusa.bbcportal.com/.


**Financial Aid and Verification of Attendance:** According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended the first week of class. Any student receiving federal financial aid who does not attend the first week of class will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

**Jaguar Writing Center:** The Jaguar Writing Center provides writing assistance to graduate and undergraduate students in all three colleges. Writing tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Students can make individual or group appointments with a writing tutor. The Writing Center is located in the Central Academic Building, Suite 208. Appointments can also be made through JagWire under the services tab.

**Meeting Basic Needs:** Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Dean of Students (DOS@tamusa.edu) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources they may possess.

**Military Affairs:** Veterans and active-duty military personnel are welcomed and encouraged to communicate, in advance if possible, and special circumstances (e.g., upcoming deployment, drill requirements, disability accommodations). You are also encouraged to visit the Patriots’
Casa in-person room 202, or to contact the Office of Military Affairs with any questions at military@tamusa.edu or (210)784-1397.

**Religious Observances:** Texas A&M University-San Antonio recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

**Respect for Diversity:** We understand that our students represent diverse backgrounds and perspectives. When we are equity-minded, we are aware of differences and inequalities and are willing to discuss them so we can act to resolve them. The University is committed to building cultural competencies, or the attitudes, skills, and knowledge that enable individuals and organizations to acknowledge cultural differences and incorporate these differences in working with people from diverse cultures. Respecting and accepting people different than you is vital to your success in the class, on campus, and as a future professional in the global community. While working together to build this community we ask all members to:

- Share their unique experiences, values, and beliefs.
- Be open to the views of others.
- Honor the uniqueness of their colleagues.
- Value each other’s opinions and communicate respectfully.
- Keep confidential discussions that the community has of a personal (or professional) nature.
- Use this opportunity together to discuss ways in which we can create an inclusive environment in this course and across the A&M-San Antonio community.

**The Six-Drop Rule:** Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student’s GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as “F” grades and will impact the student’s GPA.

**Statement of Harassment and Discrimination:** Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equality of opportunity and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality, diversity, pluralism and the uniqueness of the individual within our state, nation, and world. All decisions and actions involving students and employees should be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units.

**Students’ Rights and Responsibilities:** The following statement of students’ rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules
are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

**Students’ Rights**

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of University Student Rules shall be assured a fundamentally fair process.

**Students’ Responsibilities**

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty and University officials.
2. A student has the responsibility to be fully acquainted with the published University Student Rules and to comply with them, as well as federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to maintain a level of behavior that is consistent in supporting the learning environment of the institution and to recognize the University’s obligation to provide an environment for learning.

**Important Dates:**

- **January 13**  First day of class
- **March 27**     Last day to drop with an automatic “W”
- **May 1**        Last day to drop a course or withdraw from the University
- **May 2**        Last day of classes
- **May 4-5**      Reading Days
- **May 6-12**     Final exams

The complete academic calendar is available online: [https://www.tamus.edu/provost/academiccalendar.html](https://www.tamus.edu/provost/academiccalendar.html)

**Content Advisory** – Throughout this course we may discuss topics and/or potentially disturbing issues. We may watch films or read articles that represent beliefs and life experiences that are different from your own. You will encounter facts, ideas, claims, images, stories, hypotheses, theories or perspectives that may upset or trouble you. Every effort will be made to provide advance notice.