

**Texas A&M University-San Antonio**  
**Department of Natural Sciences**  
**Water Resources Science and Technology**

**WATR 5371 Independent Study (3 SCH)**

Coordinator: Dr. Walter Den

Email: [wden@tamusa.edu](mailto:wden@tamusa.edu)

Office: (210)784-2815

**COURSE DESCRIPTION**

Independent Study allows students an opportunity to learn skillsets that they would either not be able to learn in a traditional subject-specific course or be more effectively acquire through forms other than classroom learning. The course provides the flexibility concerning the method of learning, including project-based learning from research laboratories or from practitioners, and “shadowing” practitioners whose skillsets are of particular interests of the students. Students should be able to explicitly describe what skillsets they acquire or how their existing skillsets apply to real-world projects relevant to water science, engineering, management, or policy-making.

**PREREQUISITES**

WATR 5314, WATR 5320

**COURSE OUTCOMES**

Students should be able clearly identify:

- The skillsets they acquire or sharpen through independent study.
- The critical hard and soft skills needed to successfully complete a project relevant to water science, engineering, and management.
- The ability to replicate the skills to a project in which the student participated.

**METHOD OF INSTRUCTION**

While the course is meant to allow a wide latitude of learning process, the learning objectives and expected outcomes must be identified. The student(s) should discuss with the course facilitator to set clear goals and objectives for their independent study.

Students will be responsible for:

1. reporting to the course facilitator on a regular basis (e.g., 4 meetings over the course of the semester);
2. maintaining a course-specific notebook on which all details should be documented during the course of the independent study (**if you did not document it, it did NOT happen**);
3. at the minimum, presenting their learning experience and outcome to the supervisor/mentor and the course facilitator at the conclusion of the study.

## **METHOD OF ASSESSMENT**

Level of participation as documented (40%)

Regular progress reports (20%)

Final report and presentation (40%)

## **RESPONSIBILITIES AND EXPECTATIONS**

Conducting an independent study means that you will:

1. Spend a minimum of 8 hours per week carrying out the project in which you participate.
2. Meet with your mentor at mutually agreed upon times and intervals during the semester.
3. If your project takes place at A&M-SA, you are required to complete a lab safety training and any other institutionally required protocol, i.e., Institutional Research Board (IRB) for human subject research, Institutional Biosafety Committee (IBC) for biological sampling and testing, and Institutional Animal Care and Use Program (IACUP) for research involving living animals.
4. Communicate with both your mentor and the course facilitator, if applicable, as necessary, throughout the project. Clear and continuous communication with your mentor(s)/advisor(s) is a necessary part of the independent study and is expected from the student.
5. Present the relevance of the research and/or findings to peer(s) in a format appropriate to the project (this may include a poster, film, installation, etc. – format to be determined with the mentor).
6. Submit a final research paper (min 25 pages, max 50 pages), appropriate to the discipline, as agreed with your course facilitator.

Specific expectations of the students undertaking Independent Study are agreed upon at the beginning of the semester. In general, you are expected to initiate communications with your mentor, exhibit initiative, take ownership of your project, and work independently. You must also be prepared for meetings and be willing to part take in relevant discussions. While this is different from the expectations of a Research Project in which you are expected to complete a project, you must demonstrate the ability to understand the skillsets needed to complete a project.