





Faculty Member Contact Information

Name	Adriana Martinez
Contact Info	
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Campus Box	1099
Department	Environmental Science

1 Funded, Unfunded URCA Assistant

	This position is ONLY open to students who have declared a major in this discipline.	M
	This project deals with social justice issues.	
✓	This project deals with sustainability (green) issues.	
✓	This project deals with human health and wellness issues.	
	This project deals with community outreach.	
	This mentor's project is interdisciplinary in nature.	I

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

Yes

How many hours per week will your student(s) be required to work in this position?
(Minimum is 6 hours per week; typical is 9)

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Will it be possible for your student(s) to earn course credit?

Yes ENSC 499 or similar GEOG course 1-3

Location of research/creative activities:

Brief description of the nature of the research/creative activity?

Dr. Martinez has been conducting field sampling along the Rio Grande where the State of Texas has placed a water borne barrier (the buoys) in the river channel causing channel changes in the river. She has and will continue to sample sediment from the river channel and the URCA assistant will aid in the processing of these sediment samples to determine the sediment size that is present around the buoys. Determining what type of sediment is around the buoys over time will help us understand how the buoys are changing the international border and river habitat in the area. If applicable to the student's skills, the student may also conduct GIS analysis but this is not required.

Brief description of student responsibilities?

The selected student will take sediment samples gathered in the field and dry them in lab ovens. Sediment samples will be hand ground and run through an instrument to separate out into the sizes of sediment present. The student will record the weight of each of the sizes of sediment present and graph them in excel. If time allows, or if fewer sediment samples are collected in the field, the student will help process drone imagery gathered in the field over the spring (already collected) and summer 2024. This will involve learning the software AGISOFT Metashape (fairly simple to learn) which will produce DEMs and aerial photos of the area. These files are then opened in GIS where the student will create maps of the study sites.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

Yes

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours) please indicate all required days and times:

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

Must students have taken any prerequisite classes? Please list classes and preferred grades:

Other requirements or notes to applicants: