The Graduate School (GS) is pleased to announce the Transdisciplinary Team Grand Challenge: Water for graduate students at The University of Texas at San Antonio (UTSA).

Goal: Our dependence on water has created a water crisis on multiple fronts. As the population of the planet increases, so has demand for potable water. At the same time, a rising demand for energy, combined with an aging infrastructure and changes in land use practices have impacted availability of water. Meanwhile, climate variability and change have resulted in widespread and unprecedented levels of flooding and drought. Improvements in assessment have revealed higher levels of contaminants in the water supply than expected, due to changes in industrial processes, excessive nutrients (e.g., nitrogen and phosphorus), and other physical processes. The problems of an inadequate water supply, unhealthy watersheds, and degraded habitats cannot be tackled by researchers in individual disciplines, but instead require teams of disciplinary scholars to work together across disciplines with community partners to develop optimal solutions. Therefore, our challenge to UTSA’s graduate student researchers is to work together across disciplines to propose conceptual projects to address any aspect of water, including broad topics such as watershed protection or equitable access to water and narrower topics such as measurement of contaminants at point of pollution sites or campaigns to promote awareness of safe water recreation.

Conceptual project topics could include but are not limited to:

- Advanced water treatment and reuse
- Access to safe drinking water
- Aquatic ecosystems
- Water chemistry, contaminants, nutrients, and public health
- Hydrology, hydrogeology, and flood control
- Monitoring and modeling of water resources and climate
- Sustainable water use, reuse, and policy research
- Aquifer sustainability, groundwater resources, and ecology
- Cross border water solutions

The applicant team must clearly and convincingly demonstrate that the proposed project or program is transdisciplinary in nature. Transdisciplinary Research is defined as research conducted by investigators from different disciplines working jointly to create new conceptual, theoretical, methodological, and translational innovations that integrate and move beyond discipline-specific approaches to address a common problem. Transdisciplinary teams allow members to bring their individual expertise to bear; however, members are expected to work together from the beginning to develop approaches to a problem rather than first developing approaches within their disciplines and then bringing those individual ideas together to formulate a final solution. Teams of between 3-5 students must be formed from different disciplines as described below. While teams are not expected to conduct the proposed project, proposals should be for projects that are feasible.
AWARDS
It is anticipated that three teams will be awarded, subject to available resources. Within each of these three teams, each student will receive a $2,000 scholarship to be awarded by the Spring, 2022 semester. Please note that teams are not expected to carry out the proposed project – the challenge is strictly limited to developing conceptual proposals, and therefore no funds will be provided should a team seek to independently work on the project, post-competition.

PROJECT SUBMISSION DETAILS AND TIMELINE

Team formation:

- Teams of 3-5 graduate students from at least two different programs within at least two colleges should form a transdisciplinary team to tackle one of the areas associated with the Grand Challenge topic. Associate Deans for Research and Associate Deans for Graduate Studies will help students with finding teammates from across UTSA colleges.

- Looking for teammates? The Graduate School has created a Slack channel to help students find teammates for the Grand Challenge. Use your @utsa.edu email to join and login to Slack here: https://join.slack.com/t/utsa-jmn9759/shared_invite/zt-ubnrcfpj-1LLtaSzh9Xj6q7ju~orWzA

Preference will be given to proposals that:

- Build or strengthen transdisciplinary collaborations across two or more disciplines

- Have significant merit, including significance, innovation, originality of approach, and technical merit

Eligibility:

- Applicants must be graduate (Master’s or doctoral) students enrolled in at least 6 hours of graduate courses at the time of application and award. Exceptions to the 6-hour requirement are granted for Master’s or doctoral students who have an approved thesis proposal (if applicable) or dissertation proposal and have completed all coursework except thesis or dissertation hours, or internship (or equivalent) hours.

- Applicants may not participate on more than one proposal to this program.

- Proposals must demonstrate collaboration among 3-5 graduate students from at least two different programs within at least two colleges at UTSA. Projects should, wherever possible, include a community partner who collaborates with the team on developing the conceptual project. Examples of community partners include but are not limited to businesses, non-profit agencies, governmental entities, and so forth. Associate Deans for Research can help to identify and connect appropriate community partners.
Transdisciplinary Team Grand Challenge: Water

Notice of Intent due: September 24, 2021

- Teams must file a Notice of Intent (NOI), with pertinent participant information and a brief preliminary description of the concept project. The NOI is non-binding in that the project can be changed from the original description provided in the NOI. The NOI form requires a preliminary descriptive title; brief description if available (500 words maximum); and a list of the names, colleges, programs, and research areas for all team members. Although the NOI is nonbinding, it will assist in determining how many reviewers will be necessary. The NOI form may be completed online at: https://utsa.tfaforms.net/107.

Proposals due: November 19, 2021

- See required deliverables described in the Proposal Submission section below.

Awards announced: December 15, 2021

- All members of the three teams receiving the highest scores from review panels will receive an award.

Funds awarded: by January 15, 2022

- Each student in the top three teams will receive $2,000 via Financial Aid.

- Awards for domestic students will be processed as a scholarship and credited to their student account. A refund will be processed if they have no current student balance, however, any outstanding balance with UTSA will be deducted from the scholarship prior to disbursal of funds. Students not eligible for financial aid funds will receive supplemental payment subject to tax deductions.

- Awards for international students will be processed as a scholarship. The Payroll Office will review and withhold any federal income taxes based on the home country’s current tax treaty. Additionally, any outstanding balance with UTSA will be deducted from the scholarship prior to disbursement of funds.

NOI and PROPOSAL SUBMISSION


Proposal deadline: Close of business (5:00 P.M. CDT) on November 19, 2021. Applicants will complete the cover page online at https://utsa.tfaforms.net/109. The cover page includes the listing of all team members, project title, and project abstract (500 word maximum).

Applicants will email the proposal to Graduate.VPDean@utsa.edu. All proposal elements shall be contained in a single, text-searchable Adobe Acrobat pdf file.

The proposal must include the following, in the order shown below:
Transdisciplinary Team Grand Challenge: Water

1. Project Description: 5 page maximum, single-spaced

2. Key References: 1 page maximum

3. Letter of support from community partner (if applicable): 1 page maximum

If any items requested above are not included at the time of submission, the proposal will be deemed non-compliant and will not be reviewed.

1. **PROPOSAL COVER PAGE** – Submit online at [https://utsa.tfaforms.net/109](https://utsa.tfaforms.net/109).
   The Proposal Cover Page must include a clear executive summary (500 word maximum) that summarizes the essential content of the proposed project, including objectives, benefits, and significance.

2. **PROJECT DESCRIPTION** – (5 PAGE MAXIMUM) – emailed to Graduate.VPDean@utsa.edu
   The project description must include, in this order:
   - General background; how it relates to UTSA strategic initiatives and institutional priorities;
   - Scientific merit and significance of the proposed conceptual project: Address how this project is transdisciplinary in nature and the potential impact it would have, if successful;
   - Impact of this project on society and areas where this project could be applied;
   - Specific goals, objectives and anticipated results;
   - Description of methods including anticipated barriers or technical difficulties; and
   - Resources that would be needed if this project were to be carried out (equipment, materials, etc.).
   The project description must be concise, limited to five typed, single-spaced pages with 12-point Times New Roman font and one-inch margins. Appendices may be included; however, reviewers are not obligated to read this supplemental material. If two or more appendices are included in a proposal, they should be designated Appendix A, Appendix B, etc. A violation of this format will disqualify the proposal from review.

3. **KEY REFERENCES** – (1 PAGE MAXIMUM)
   Key reference page does not count toward the project description limit.

4. **LETTER OF SUPPORT** – (1 PAGE MAXIMUM)
   If applicable, include a letter from community partner addressed to the Vice Provost & Dean of the Graduate School confirming that the team worked collaboratively with the partner on the conceptual project.
GRAND CHALLENGE REVIEW

Applications will be reviewed by a Grand Challenge Review Committee established by the Graduate School. Committee members will be from a variety of academic backgrounds.

As such, proposals should be clearly written in a way that the goals, rationale and methods of the proposed work can be understood by all reviewers. Avoid field specific terminology as much as possible.

Applicants will be informed of the Committee’s recommendations on or about December 15, 2021. As noted above, awards will be available after January 15, 2022.

Proposals will be evaluated on a 100-point scale. The team is expected to include all required proposal components and to fully and clearly address each criterion.

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<tr>
<th>Proposals will be evaluated using the following criteria:</th>
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<tr>
<td>Are the goals, objectives, and anticipated results stated clearly and aligned with the Grand Challenge?</td>
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<td>Is the significance and merit of the conceptual project clearly documented?</td>
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<tr>
<td>Is the project clearly transdisciplinary in nature, aiming to create new conceptual, theoretical, methodological, and/or translational innovations that integrate and move beyond discipline-specific approaches to address a common problem?</td>
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<td>Are the methods outlined and do they reflect the goals and objectives stated in the proposal?</td>
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<td>Does the proposal include a brief description of possible costs and resources required (e.g., time necessary, description of other outside partners, expert services, location of sample or participants, and incentives or other compensation necessary for the project)?</td>
<td>10</td>
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For more information on this opportunity, please contact Rebecca Weston at Rebecca.Weston@utsa.edu.