



# Undergraduate Research at Texas A&M

---

*Annabelle G. Aymond*  
*Interim Associate Director for Undergraduate Research*  
*LAUNCH*

# What is Undergraduate Research?



TEXAS A&M  
UNIVERSITY

*A mentored investigation or creative inquiry conducted by undergraduates that seeks to make a scholarly or artistic **contribution to knowledge.***

- The Council on Undergraduate Research  
(CUR)

- **Test** a novel hypothesis
  - **Investigate** a question
  - **Solve** a problem
  - **Design** a machine
  - **Develop** a new procedure
  - **Create** a performance
  - **Write** a creative work
-

# Misconceptions about Research



TEXAS A&M  
UNIVERSITY

❌ **Limited to STEM\* disciplines**  
(undergraduate research happens in every field)

❌ **Only pursuing graduate school**  
(industry values undergraduate research, too)

❌ **Only for seniors**  
(you can do research in any year, even as a freshman)

❌ **Takes too much time**  
(can range from 3-18 hours per week)

❌ **Only for the top students**  
(undergraduate research is about learning)

❌ **Faculty are scary**  
(they are here for you)

\*STEM: Science, Technology,  
Engineering, Mathematics

---

# Benefits of Undergraduate Research



TEXAS A&M  
UNIVERSITY

- Learn **resilience** and fail productively
  - Experience **meaningful interactions** with faculty and others in network
  - Connect learning to **real-world** settings that are beyond the classroom
  - Work on a team and **collaborate** with mentors and peers alike
  - **Manage time** in the scope of a large project
  - Challenge yourself to **think in new ways** and respond to novel situations
  - **Advance your career** through mentoring relationships, stronger applications, and possible job offers
-

# Getting Started in Research



TEXAS A&M  
UNIVERSITY

- Verbalize **passions** and determine preliminary **goals**
  - Find **opportunities** and what to ask about/for
  - Learn what **success** looks like in your area
  - Maintain professional **relationships**
  - Maximize **experience** (through LAUNCH programs)
  - Identify **transferable skills** needed beyond undergrad
  - Run with it, and don't forget to **pass it back!**
-

# Ways to Do Undergraduate Research



TEXAS A&M  
UNIVERSITY

- Course credit: 0-4 hours, e.g., 491
  - Student worker (\$)
  - Study abroad/field courses
  - **Summer programs:** NSF-REU & SURE
  - Internships (can be paid)
  - Scholarships and Fellowships
  - National or international experiences
  - **Examples:** companies, universities, labs, hospitals, institutes, government careers, museums, and parks
-

# Why Summer?



TEXAS A&M  
UNIVERSITY

## Fewer distractions

- Can concentrate full-time
- Broader experiences

## Can leave town

- Access different resources and locations
  - Develop contacts at other institutions
  - “Test” a place you might want to go for graduate or professional school
  - Live and explore somewhere else
-

# Finding Research Opportunities



TEXAS A&M  
UNIVERSITY

## Research Opportunities Database

To submit an undergraduate research opportunity to our database, fill out a [Research Opportunity Submission Form](#).

### Quick Tips for Searching

1. Check the filters that are relevant to your search
2. If you still need the search to be more narrow, use the search box
3. Click on the name of the opportunity for more detailed information
4. Changes to the filters and the search box appear in real-time (when the deadline has passed, the opportunity will no longer appear)

Show 10 entries

Search:

Name	Category	Deadline	Summary
<a href="#">15th Annual Pathways Student Research Symposium</a>	Symposium	9/10/2018	Interdisciplinary symposium open to students in the Texas A&M System conducting faculty-mentored research
<a href="#">Academic Support Initiatives in Residence Life</a>	Program, Research Position	None	Student interns will work with a Research Team and gain valuable experience directly tied to their field of interest.
<a href="#">Aggie Research Scholars Program</a>	Program	None	Aggie Research Scholars perform research in teams led by an experienced graduate student or postdoctoral fellow.
<a href="#">Aggie Challenge</a>	Program	None	A program that engages engineering undergrads with multidisciplinary team projects related to the engineering challenges facing society.
<a href="#">American Geophysical Union's (AGU) Virtual Poster Showcase</a>	Conference, Symposium	10/2/2018	An online presentation competition for undergraduate research in Earth or space sciences
<a href="#">Capital of Texas Undergraduate Research Conference</a>	Conference	9/14/2018	Student-run conference for undergraduate researchers in all majors and schools in Texas to present their original discoveries
<a href="#">Clinton Global Initiative University (CGIU)</a>	Funding, Symposium	4/23/2018	Meeting of students, university representatives, experts, and celebrities to discuss solutions to global challenges
<a href="#">Council on Undergraduate Research (CUR) REU Symposium</a>	Symposium	8/15/2018	A presentation opportunity for undergraduates who participated in summer REU programs

**Filters**

**By Category:**

- Research Position
- Program
- Conference
- Symposium
- Funding

**By Other:**

- On Campus
- Off Campus
- Summer Research
- GPR Requirement
- Individual Project
- Team Project

**(Curriculum:)**

- STEM
- Arts, Humanities and Social Sciences
- Interdisciplinary

**RESET FILTERS**

- **Research Opportunities Database**  
(<http://tx.ag/ROdatabase>)

- **Undergraduate Research Ambassadors**  
(<http://tx.ag/AskUsAboutUGR>)

- **Events**
  - Undergraduate Research Expo
  - Undergraduate Research Scholars Symposium
  - Summer Poster Session
  - Getting Started in Research Workshops

Connect with us—we can help! Email [ugr@tamu.edu](mailto:ugr@tamu.edu).



# Finding Research Opportunities



TEXAS A&M  
UNIVERSITY

- Department websites and faculty profiles
- Classes—ask your professors and TAs!
- Student Organizations (seminars and invited speakers)
- Conferences, Symposia, & Fairs
- Seminars and presentations: Check TAMU Calendar, your email, Career Center Website
- Team-based projects through the Aggie Research Program (<http://aggiresearch.tamu.edu>)

## RESEARCH CENTERS

The College of Geosciences is home to **nine research centers and consortiums** that focus on interdisciplinary and collaborative research aimed at addressing global issues that affect our everyday lives. Researchers and collaborators from Texas A&M include the College of Agriculture, College of Architecture, College of Engineering, Texas A&M Galveston, and Texas A&M Corpus Christi.

Berg-Hughes Center for Petroleum and Sedimentary Systems
Center for Atmospheric Chemistry and the Environment
GEOSAT
Geochemical and Environmental Research Group
International Ocean Discovery Program
Office of the State Climatologist
Center for Tectonophysics
Texas Center for Climate Studies
Texas Sea Grant

## Available Projects

> Fall 2019: Smart Semi Trailer	5 Spots Open
> Fall 2019: Winter Break Turkey Trapping!	8 Spots Open
> Fall 2019: Behavior and ecology of Wild Turkeys	4 Spots Open

# Get Started



TEXAS A&M  
UNIVERSITY

## Prepare

- Critical classes, good grades, develop interests
- Self assessment, brief resume, understand your time commitments
- What do you want to do? Where do you want to go?

## Find out what's available

- Research faculty interests
- Summer: Apply between December and February
- Be ready to interview in the spring

## Talk to faculty

- Motivation, interests, capabilities, questions, expectations

## Remember the keys to success

- Communicate, participate, interact
  - Be reliable, dedicated, enthusiastic
-

# Take it a Step Further



TEXAS A&M  
UNIVERSITY

OAKTrust

🏠 OAKTrust Home / Programs, Centers, and Institutes / Undergraduate Research and Capstones / Undergraduate Research Scholars Capstone (2006–present)

## Undergraduate Research Scholars Capstone (2006–present)

BROWSE BY

By Issue Date | Authors | Titles | Subjects | Department

Search within this collection:

Advanced Search

Recent Submissions

Improving Innate Immunity Through Genetic Editing of the 5' Untranslated Region of Interferon Regulatory Factor 7

Guzman, Mayra Guadalupe (2017-04-28)  
Disease decreases production efficiency and kills millions of animals across all types of livestock operations every year. This is severely detrimental to both animal producers and consumers from an economic and overall ...

Zen Routing

Lewis, Justin T. (2017-04-27)  
Driving induced stress is a problem inherent to contemporary living in urban areas. Traffic congestion, route unpredictability, and other factors cause undue stress to commuters daily. This project's purpose is to alleviate ...

Archived Volumes

Explore our new interactive version of the journal at [Explorationsinteractive.com](http://Explorationsinteractive.com)!

Volume 10  
Fall 2018



READ NOW

Volume 9  
Fall 2017



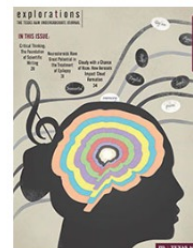
READ NOW

Volume 8  
Fall 2016



READ NOW

Volume 7  
Fall 2015



READ NOW

- **Write a Thesis:** Undergraduate Research Scholars
- **Volunteer:** Undergraduate Research Ambassadors
- **Publish:** *Explorations: The Texas A&M Undergraduate Journal*

# Resources



TEXAS A&M  
UNIVERSITY

- UGR Staff – [ugr@tamu.edu](mailto:ugr@tamu.edu) and <https://ugr.tamu.edu>
  - UGR Events – Expo, Symposium, Workshops, Informationals
  - Database – <https://tx.ag/ROdatabase>
  - ARP – <https://aggieresearch.tamu.edu/project-list/>
  - UGR Ambassadors – <https://tx.ag/AskUsAboutUGR>
  - Thesis Program – <https://tx.ag/URSthesis>
  - Journal – <https://explorations.tamu.edu>
  - Departmental Websites and Faculty Pages
  - Email Bulletins and the University Calendar
  - Summer Programs
  - 291/491, 285/485, 497 Courses
-



## Questions?

[annabelle@tamu.edu](mailto:annabelle@tamu.edu)

[ugr@tamu.edu](mailto:ugr@tamu.edu)

<https://ugr.tamu.edu>

<https://calendar.tamu.edu/ugr>

<https://launch.tamu.edu>