The 10th Annual Celebration of Excellence by Students

AcES

March 26, 2014
PRESENTER ABSTRACTS
You can access abstracts of the oral and poster presentations using your computer or mobile device.

- **ACES website**: [http://www.uta.edu/aces/](http://www.uta.edu/aces/)
- **UT Arlington Guidebook**

The ACES Guidebook is a free app available in the iOS App Store or on Google Play. Search for **Inside UT Arlington** in your device’s app store. After opening the app, select the download guides button on the bottom of the screen and select ACES

---

*The Annual Celebration of Excellence by Students Symposium is a university-wide symposium that showcases the best of UTA’s undergraduate and graduate students’ research and creativity*
See what’s inside...

At-a-Glance Schedule

Welcome

Keynote speaker

Oral presentation schedule

Poster presentation numbers

List of all presenters with oral presentation time and location or poster number

ACES Special Sessions held March 25th
   GK-12, Department of Mathematics
   Women’s and Gender Studies

Acknowledgements
## ACES

### At-a-Glance Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:15 am</td>
<td>Registration opens <em>Bluebonnet Ballroom (poster presenters), 2nd floor University Center, Sierra Lounge (oral presenters)</em></td>
</tr>
<tr>
<td>7:30 - 11:00 am</td>
<td>Poster Installation <em>Bluebonnet Ballroom</em></td>
</tr>
<tr>
<td>8:00 am - 12:00 pm</td>
<td>Graduate and Undergraduate Oral <em>2nd floor University</em></td>
</tr>
<tr>
<td>12:00 pm - 1:00 pm</td>
<td>Undergraduate Poster <em>Bluebonnet Ballroom</em></td>
</tr>
<tr>
<td>1:00 pm - 4:30 pm</td>
<td>Graduate and Undergraduate Oral <em>Sierra Lounge</em></td>
</tr>
<tr>
<td>2:00 pm - 3:30 pm</td>
<td>Graduate Poster <em>Bluebonnet Ballroom</em></td>
</tr>
<tr>
<td>5:30 pm</td>
<td>Presenters pick up judging rubrics, <em>2nd floor University Center</em></td>
</tr>
<tr>
<td>5:30 pm</td>
<td>Reception</td>
</tr>
<tr>
<td>6:00 pm</td>
<td>Keynote Address <em>Presentation of Awards</em></td>
</tr>
</tbody>
</table>
Welcome,

from Dr. Raymond Jackson

On behalf of President Vistar Karbhari, Provost Ronald Elsenbaumer, and Vice President for Research Carolyn Cason, I am delighted to welcome you to UT Arlington’s tenth Annual Celebration of Excellence by Students (ACES). ACES shines a spotlight on intellectual curiosity, rigorous inquiry and the pursuit of excellence that make up the lifeblood of our university. Together they are the driving forces behind original research and creative projects and today’s event will show what these forces can accomplish. During ACES, students present their original work in oral or poster presentations and discuss it with the audience. Alumni, faculty and other members of our community will judge these presentations and provide feedback that helps participants grow as scholars and communicators. You will find the hard work, skill and knowledge displayed by our students both exciting and compelling.

The keynote speaker for ACES 2014 is Dr. Ashley Purgason, Assistant Dean in the College of Science. One of her primary responsibilities is to find ways to make participation in research an essential component of the undergraduate experience. Dr. Purgason received a Ph.D. in Environmental Toxicology from UT Medical Branch at Galveston. She conducted research at both UTMB and the NASA Johnson Space Center in Houston, focusing on the dangers of the space radiation environment and its effects on the health of astronauts in long duration missions beyond low Earth orbit. During that time she was appointed as a Student Regent member to serve on UT System Board of Regents by Governor Perry and served as president of both the Student Government Association and the Graduate Student Organization at UTMB.

I want to express my gratitude to the faculty mentors, both on and off campus, who have enriched the educational experiences of our students and have helped prepare the ACES participants for today’s Symposium. The time and attention that you have devoted to involve students in your research programs and creative endeavors have shaped the scholars of tomorrow.

Finally, I gratefully acknowledge the many efforts of the ACES Steering Committee for the work they have done over the past year to assure that
ACES will be prepared to showcase the accomplishments of our students. I am also pleased to recognize the outstanding contribution of the Office of Graduate Studies staff, our faculty and alumni judges, and our student moderators from Graduate Student Senate. All of them have worked hard and spent long hours making sure the tenth Annual Celebration of Excellence by Students is a memorable one.

For more information about this year’s ACES event or to read about past ACES events and winners, please visit our website at www.uta.edu/aces.

Dr. Raymond Jackson  
Associate Dean of Graduate Studies  
co-chair of the ACES Steering Committee  
March 26, 2014
Keynote Speaker

**Dr. Ashley Purgason** is back at her Alma Mater of UT Arlington as the Assistant Dean in the College of Science for Undergraduate Research and Student Advancement. She couldn't be prouder to call herself a Maverick and work with the students here at UTA.

A native of Arlington, Dr. Purgason earned her Ph.D. in Environmental Toxicology from a health institution, UT Medical Branch in Galveston, Texas, and tends to approach science from a biomedical and whole-body perspective.

Her research work was completed in conjunction with the NASA Johnson Space Center and focused on the effects of charged particles on the gastrointestinal tract. Dr. Purgason’s primary expertise in this area is the histopathology of mammalian tissues following toxicological and radiological insult. She also has experience in the areas of gene expression, epigenetics, nanoparticle-drug delivery, and DNA repair. During her time at UTMB and NASA-JSC, Dr. Purgason was named a National Institute of Environmental Health Sciences Toxicology Scholar, a NASA Graduate Student Research Proposal Pre-Doctoral Fellow, and a Texas Space Grant Consortium Scholar. She also completed the prestigious NASA Space Radiation Summer School program at Brookhaven National Laboratory in Upton, New York.

While completing her doctoral degree, Dr. Purgason became extremely interested in the way in which undergraduates are exposed to and trained in research activities and how those activities ultimately affect learning, educational, and life outcomes.

It became her dream to see such activities increase exponentially at public universities due to their proven efficacy in positively impacting student success. Dr. Purgason is thrilled to work towards this goal every day at the greatest academic campus and thanks the extremely dedicated faculty for their tireless efforts on behalf of students. She now researches curricular changes in science higher education which are geared towards student participation in inquiry-based activities.
Dr. Purgason served as the Student Regent on The University of Texas System Board of Regents prior to returning to UTA. The experience was invaluable for her in learning the operations of public higher education, how to have a long-term and "big thinking" view, and the current and future educational needs of the citizens of Texas. She is very happy to be assisting in meeting these educational needs by teaching courses in the Department of Biology and exploring innovative initiatives. Finally, she is also extremely honored to have been a member of the Women's Basketball team when she was an undergraduate here at UTA. She was named an Academic All-American for the team.
All presentations take place in the meeting rooms on the 2nd floor of the E.H. Hereford University Center. Room locations can be found on the fold-out schedule.

<table>
<thead>
<tr>
<th>Anthropology</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>Linguistics</td>
</tr>
<tr>
<td>Art &amp; Art History</td>
<td>Material Science Engineering</td>
</tr>
<tr>
<td>Biology</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>Modern Languages</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Nursing</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>Philosophy</td>
</tr>
<tr>
<td>Computer Science Engineering</td>
<td>Physics</td>
</tr>
<tr>
<td>Education</td>
<td>Political Science</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>Psychology</td>
</tr>
<tr>
<td>English</td>
<td>Social Work</td>
</tr>
<tr>
<td>Geology</td>
<td>Undergraduate Student Presentations</td>
</tr>
</tbody>
</table>
## Morning Oral Presentations

<table>
<thead>
<tr>
<th>Time</th>
<th>Concho</th>
<th>Red River</th>
<th>Palo Pinto</th>
<th>Pedernales</th>
<th>Neches</th>
<th>San Saba</th>
<th>Guadalupe</th>
<th>San Jacinto</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Mohammad Abdallah (EE)</td>
<td>Azade Nazi (CSE)</td>
<td>Wesley Watson (POLS)</td>
<td>Ohood Al Salem (GEOL)</td>
<td>Elizabeth Tatz (LING)</td>
<td>Susana Domingues (BIOL)</td>
<td>Brandon Butler (ANTH)</td>
<td>Tran Tran (CHEM)</td>
</tr>
<tr>
<td>8:20 AM</td>
<td>Vibhu Sharma (MSE)</td>
<td>S M Taiabul Haque (CSE)</td>
<td>Lukas Szrot (ANTH)</td>
<td>Min Gao (GEOL)</td>
<td>Darcey Browning (LING)</td>
<td>Benjamin Allen (BIOL)</td>
<td>Trevor Engel (HIST)</td>
<td>Prajay Patel (CHEM)</td>
</tr>
<tr>
<td>8:40 AM</td>
<td>Ami Shah (MSE)</td>
<td>Mahdi Al-ameen (CSE)</td>
<td>Oguz Yetkin (BME)</td>
<td>Jennifer Beyer (GEOL)</td>
<td>Gladys Chow (ART)</td>
<td>Chengdon Xu (CHEM)</td>
<td>Lindsay Anderson (HIST)</td>
<td>Emmanuel Fordjour (BIOL)</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Megen Velten (MSE)</td>
<td>Sarava Thirumuruga (CSE)</td>
<td>Lyndon Lee (BME)</td>
<td>Teresa Sykes (GEOL)</td>
<td>Morgan Chivers (ART)</td>
<td>Michelle Green (BIOL)</td>
<td>Erin Lynch (HIST)</td>
<td>Madiha Hanif (BIOL)</td>
</tr>
<tr>
<td>9:20 AM</td>
<td>Nuzhat Mansur (EE)</td>
<td>Rasool Fakoor (CSE)</td>
<td>Benjamin Johnson (BME)</td>
<td>Juan Zamora (GEOL)</td>
<td>Cory Wells (HIST)</td>
<td>Joshua Beach-Letendre (BIOL)</td>
<td>Tiler Bates (ENGL)</td>
<td>Emiliano Velazquez (BIOL)</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
</tr>
<tr>
<td>10:20 AM</td>
<td>Mohammed Mahmood (EE)</td>
<td>Prathibha Kumar (CSE)</td>
<td>Cheng Sheng (PHYS)</td>
<td>Ruchika Bhawal (CHEM)</td>
<td>Michael Deliz (HIST)</td>
<td>Lauren Fuess (BIOL)</td>
<td>Rosalinda Guerra (MODL)</td>
<td>Nguyen Cao (GEOL)</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Waqas Ali (EE)</td>
<td>Mahrad Amirabadi (CSE)</td>
<td>Cong Zhao (PHYS)</td>
<td>Sumit Bhawal (CHEM)</td>
<td>Jennifer Omana (ENGL)</td>
<td>Hae-in Lee (BIOL)</td>
<td>Litza Molina (MODL)</td>
<td>Luis Velazquez (BIOL)</td>
</tr>
<tr>
<td>11:20 AM</td>
<td>Muhymin Islam (EE)</td>
<td>Luan Nguyen (CSE)</td>
<td>Kelly Aman (MATH)</td>
<td>Doug Carlton (CHEM)</td>
<td>Monica Marchi (ENGL)</td>
<td>Throy Campbell (EDUC)</td>
<td>Rachel Lyle (NURS)</td>
<td>Bailey Sayles (BIOL)</td>
</tr>
<tr>
<td>11:40 AM</td>
<td>Md. Motasim Bellah (EE)</td>
<td></td>
<td></td>
<td>Evelyn Wang (CHEM)</td>
<td>Rod Sachs (ENGL)</td>
<td>Carol Howe (NURS)</td>
<td>Daria Woods (PHIL)</td>
<td>Matthew Le (BIOL)</td>
</tr>
<tr>
<td>Time</td>
<td>CONCHO</td>
<td>RED RIVER</td>
<td>PALO PINTO</td>
<td>PEDARNALES</td>
<td>NECHES</td>
<td>SAN SABA</td>
<td>GUADALUPE</td>
<td>SAN JACINTO</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>---------------</td>
<td>---------------</td>
<td>--------------</td>
<td>---------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>Amir Norouzi (CE)</td>
<td>Md. Islam (MAE)</td>
<td>Daren Card (BIOL)</td>
<td>Munuve Mwania (CHEM)</td>
<td>Rachel Purdum (PSYC)</td>
<td>Adam Heisserer (ARCH)</td>
<td>Nicolas Miranda (MUSI)</td>
<td>Shannon Trinh (BIOL)</td>
</tr>
<tr>
<td>1:20 PM</td>
<td>Arezoo Nasab (CE)</td>
<td>Shreyas Nagaraj (MAE)</td>
<td>Matthew Steffensen (BIOL)</td>
<td>John Nimmo II (CHEM)</td>
<td>Sali Asih (PSYC)</td>
<td>T. Cord Read (ARCH)</td>
<td>Arya Banait (MAE)</td>
<td>Jose Maldonado (BIOL)</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>Shammi Rahman (CE)</td>
<td>Ameya Godbole (MAE)</td>
<td>Audra Andrew (BIOL)</td>
<td>Mohammad Hassain (CHEM)</td>
<td>Colin Jenney (PSYC)</td>
<td>Lucas Hoops (ARCH)</td>
<td>Alissa Hedricks (BME)</td>
<td>Victor Gonzalez (BUSI)</td>
</tr>
<tr>
<td>2:20 PM</td>
<td>Elmira Riahi (CE)</td>
<td>Sarthake Joshi (MAE)</td>
<td>James Pharr (BIOL)</td>
<td>Hui Fan (CHEM)</td>
<td>Amber Harris (PSYC)</td>
<td>Kimberly Shashoua (SOCW)</td>
<td></td>
<td>Destiny Price (BUSI)</td>
</tr>
<tr>
<td>2:40 PM</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
<td>BREAK</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Hamideh Riazi (CE)</td>
<td>Richard Eiland (MAE)</td>
<td>Philip Hejduk (BIOL)</td>
<td>Naleen Jayaratna (CHEM)</td>
<td>Jarryd Willis (PSYC)</td>
<td>Tracey Barnett (SOCW)</td>
<td></td>
<td>Timothy Hoffman (PHYS)</td>
</tr>
<tr>
<td>3:20 PM</td>
<td>Reza Broun (CE)</td>
<td>Manasa Sahini (MAE)</td>
<td>Madhab Sapkota (BIOL)</td>
<td>Diego Lopez (CHEM)</td>
<td>Vivian Ta (PSYC)</td>
<td>Shamsun Nahar (SOCW)</td>
<td></td>
<td>Ying Wun Ng (PHYS)</td>
</tr>
<tr>
<td>3:40 PM</td>
<td>Asama Kulvanitchaiyanunt (IE)</td>
<td>Vishnu Sreeram (MAE)</td>
<td>Richard Adams (BIOL)</td>
<td>Kenneth Abayan (CHEM)</td>
<td>Meredith Hartzell (PSYC)</td>
<td>Dante Bryant (SOCW)</td>
<td></td>
<td>Amit Bashyal (PHYS)</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>Mohammad Hasan (EE)</td>
<td>Coridon Laws (BIOL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:20 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:40 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Graduate Student Posters

Poster presentations take place in the Bluebonnet Ballroom on the 1st floor of the E.H. Hereford University Center. See schedule on page 2 for presentation time.

<table>
<thead>
<tr>
<th>Poster No.</th>
<th>Name</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Toyly Abdullayev</td>
<td>GEOL</td>
</tr>
<tr>
<td>2</td>
<td>Pooja Ahuja</td>
<td>CHEM</td>
</tr>
<tr>
<td>3</td>
<td>Jonathan Armstrong</td>
<td>EE</td>
</tr>
<tr>
<td>4</td>
<td>Olumide Aruwajoye</td>
<td>MSE</td>
</tr>
<tr>
<td>5</td>
<td>Namrata Balakrishnan</td>
<td>EE</td>
</tr>
<tr>
<td>6</td>
<td>Monica Barbery</td>
<td>GEOL</td>
</tr>
<tr>
<td>7</td>
<td>Katherine Bennett</td>
<td>COMM</td>
</tr>
<tr>
<td>8</td>
<td>Apparao Bokka</td>
<td>CHEM</td>
</tr>
<tr>
<td>9</td>
<td>Jacqueline Burse</td>
<td>SOCW</td>
</tr>
<tr>
<td>10</td>
<td>Yun-Wei Chang</td>
<td>CHEM</td>
</tr>
<tr>
<td>11</td>
<td>Thomas Christian</td>
<td>SOCW</td>
</tr>
<tr>
<td>12</td>
<td>Isaac Cohen</td>
<td>EE</td>
</tr>
<tr>
<td>13</td>
<td>Joshua Crowell</td>
<td>CHEM</td>
</tr>
<tr>
<td>14</td>
<td>Atreyi Dasmahapatra</td>
<td>CHEM</td>
</tr>
<tr>
<td>15</td>
<td>Paromita Deb</td>
<td>CHEM</td>
</tr>
<tr>
<td>16</td>
<td>Ciel Elizalde</td>
<td>GEOL</td>
</tr>
<tr>
<td>17</td>
<td>Brandi Felderhoff</td>
<td>SOCW</td>
</tr>
<tr>
<td>18</td>
<td>Kellen Gandy</td>
<td>PSYC</td>
</tr>
<tr>
<td>19</td>
<td>Charles Gatz</td>
<td>CSE</td>
</tr>
<tr>
<td>20</td>
<td>Danielle Hansen</td>
<td>KINE</td>
</tr>
<tr>
<td>21</td>
<td>Prashant Hariharan</td>
<td>BME</td>
</tr>
<tr>
<td>22</td>
<td>Alicia Hawley Barker</td>
<td>SOCW</td>
</tr>
<tr>
<td>23</td>
<td>Victoria Highland</td>
<td>SOCW</td>
</tr>
<tr>
<td>Poster No.</td>
<td>Name</td>
<td>Major</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>24</td>
<td>Melvin Ibana</td>
<td>KINE</td>
</tr>
<tr>
<td>25</td>
<td>Mohsen Imani</td>
<td>CSE</td>
</tr>
<tr>
<td>26</td>
<td>Dorothea Ivey</td>
<td>SOCW</td>
</tr>
<tr>
<td>27</td>
<td>Nandish Jayaram</td>
<td>CSE</td>
</tr>
<tr>
<td>28</td>
<td>Mayanja M. Kajumba</td>
<td>PSYC</td>
</tr>
<tr>
<td>29</td>
<td>Namrata Kamte</td>
<td>MAE</td>
</tr>
<tr>
<td>30</td>
<td>Salman Khan</td>
<td>MAE</td>
</tr>
<tr>
<td>31</td>
<td>Shreyas Krishnan</td>
<td>BIOL</td>
</tr>
<tr>
<td>32</td>
<td>Wasiu Lawal</td>
<td>GEOL</td>
</tr>
<tr>
<td>33</td>
<td>Cuong Quang Le</td>
<td>CHEM</td>
</tr>
<tr>
<td>34</td>
<td>LI LI</td>
<td>CHEM</td>
</tr>
<tr>
<td>35</td>
<td>Wei LI</td>
<td>CHEM</td>
</tr>
<tr>
<td>36</td>
<td>Manoj Niraula</td>
<td>EE</td>
</tr>
<tr>
<td>37</td>
<td>Michael Wey</td>
<td>CHEM</td>
</tr>
<tr>
<td>38</td>
<td>Matt Morris</td>
<td>ARCH</td>
</tr>
<tr>
<td>39</td>
<td>Kamiah Moss</td>
<td>KINE</td>
</tr>
<tr>
<td>40</td>
<td>Dat Nguyen</td>
<td>BME</td>
</tr>
<tr>
<td>41</td>
<td>Chris Onyiorah</td>
<td>MAE</td>
</tr>
<tr>
<td>42</td>
<td>Mercy Oyugi</td>
<td>CHEM</td>
</tr>
<tr>
<td>43</td>
<td>Nikhil Pandey</td>
<td>BME</td>
</tr>
<tr>
<td>44</td>
<td>Darshan Patel</td>
<td>CHEM</td>
</tr>
<tr>
<td>45</td>
<td>Tracie Perez</td>
<td>MAE</td>
</tr>
<tr>
<td>46</td>
<td>Heather Peterson</td>
<td>SOCW</td>
</tr>
<tr>
<td>47</td>
<td>Kushal Pokhrel</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Asheesh Pradhan</td>
<td>CE</td>
</tr>
<tr>
<td>49</td>
<td>Brian Prejean</td>
<td>KINE</td>
</tr>
<tr>
<td>50</td>
<td>P. Punnakitikashem</td>
<td>BME</td>
</tr>
<tr>
<td>51</td>
<td>Habibur Rahman</td>
<td>CSE</td>
</tr>
<tr>
<td>52</td>
<td>Ziaur Rahman</td>
<td>CE</td>
</tr>
<tr>
<td>53</td>
<td>Loveneesh Rana</td>
<td>MAE</td>
</tr>
<tr>
<td>54</td>
<td>Donna Schuman, LCSW</td>
<td>SOCW</td>
</tr>
</tbody>
</table>
# Graduate Student Posters

<table>
<thead>
<tr>
<th>Poster No.</th>
<th>Name</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Soundarya Shankar</td>
<td>BME</td>
</tr>
<tr>
<td>56</td>
<td>Bishnu Subedi</td>
<td>CHEM</td>
</tr>
<tr>
<td>57</td>
<td>Dheeraj Thakore</td>
<td>BME</td>
</tr>
<tr>
<td>58</td>
<td>Gabriela Trog</td>
<td>CHEM</td>
</tr>
<tr>
<td>59</td>
<td>Maheshika Wanigasekara</td>
<td>CHEM</td>
</tr>
<tr>
<td>60</td>
<td>Danielle Weidemann</td>
<td>PSYC</td>
</tr>
<tr>
<td>61</td>
<td>Derek White</td>
<td>BME</td>
</tr>
<tr>
<td>62</td>
<td>Michelle M. White</td>
<td>PSYC</td>
</tr>
<tr>
<td>63</td>
<td>Jinglei Wu</td>
<td>BME</td>
</tr>
<tr>
<td>64</td>
<td>Maryam Zabihi</td>
<td>CE</td>
</tr>
<tr>
<td>65</td>
<td>Hesam Zaman Khan Malayeri</td>
<td>CE</td>
</tr>
<tr>
<td>66</td>
<td>Nan Zhang</td>
<td>CE</td>
</tr>
</tbody>
</table>

# Undergraduate Student Posters

<table>
<thead>
<tr>
<th>Poster No.</th>
<th>Name</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Kristina Toth</td>
<td>EDCI</td>
</tr>
<tr>
<td>101</td>
<td>Roshni Kharadi</td>
<td>BIOL</td>
</tr>
<tr>
<td>102</td>
<td>Andrew Womack</td>
<td>PSYC</td>
</tr>
<tr>
<td>103</td>
<td>Kaustubh Shinde</td>
<td>EE</td>
</tr>
<tr>
<td>104</td>
<td>Jessica Nguyen</td>
<td>CHEM</td>
</tr>
<tr>
<td>105</td>
<td>Alonna Guerrero</td>
<td>CHEM</td>
</tr>
<tr>
<td>106</td>
<td>Kelsey Biles</td>
<td>BIOL</td>
</tr>
<tr>
<td>107</td>
<td>Shane Sloan</td>
<td>MAE</td>
</tr>
<tr>
<td>108</td>
<td>Kana White</td>
<td>CHEM</td>
</tr>
<tr>
<td>109</td>
<td>Jonathan Smith</td>
<td>KINE</td>
</tr>
<tr>
<td>110</td>
<td>Rayanne MacNee</td>
<td>NURS</td>
</tr>
<tr>
<td>111</td>
<td>Sarasvati Guzman</td>
<td>KINE</td>
</tr>
<tr>
<td>112</td>
<td>Afsoon Gazor</td>
<td></td>
</tr>
</tbody>
</table>
# Undergraduate Student Posters

<table>
<thead>
<tr>
<th>Poster No.</th>
<th>Name</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>113</td>
<td>Kelcy Steffen</td>
<td>BIOL</td>
</tr>
<tr>
<td>114</td>
<td>Devin Hornick</td>
<td>LING</td>
</tr>
<tr>
<td>115</td>
<td>Stephanie Jacob</td>
<td>PSYC</td>
</tr>
<tr>
<td>116</td>
<td>Rachel Carmickle</td>
<td>BIOL</td>
</tr>
<tr>
<td>117</td>
<td>Nicole Hales</td>
<td>BIOL</td>
</tr>
<tr>
<td>118</td>
<td>Mouhamed Nashawi</td>
<td>BIOL</td>
</tr>
<tr>
<td>119</td>
<td>Sirah Ramirez</td>
<td>MODL</td>
</tr>
<tr>
<td>120</td>
<td>Mathew Schneider</td>
<td>BIOL</td>
</tr>
<tr>
<td>121</td>
<td>Wendy Martinez</td>
<td>KINE</td>
</tr>
<tr>
<td>122</td>
<td>Yashaswini Nagarajan</td>
<td>BIOL</td>
</tr>
<tr>
<td>123</td>
<td>Nicholas Matthews</td>
<td>LING</td>
</tr>
<tr>
<td>124</td>
<td>Jeremy Farrow</td>
<td>PSYC</td>
</tr>
<tr>
<td>125</td>
<td>Jennifer Caballero</td>
<td>MODL</td>
</tr>
<tr>
<td>126</td>
<td>Jace Grandinetti</td>
<td>PHYS</td>
</tr>
<tr>
<td>127</td>
<td>Michael DeBellevue</td>
<td>MUSI</td>
</tr>
<tr>
<td>128</td>
<td>Cadi Shurbet</td>
<td>BIOL</td>
</tr>
<tr>
<td>129</td>
<td>Laila Khan</td>
<td>BIOL</td>
</tr>
<tr>
<td>130</td>
<td>Joseph Nixon</td>
<td>GEOL</td>
</tr>
<tr>
<td>131</td>
<td>Susana Aguirre-Medel</td>
<td>CHEM</td>
</tr>
<tr>
<td>132</td>
<td>Treyce Hodges</td>
<td>BIOL</td>
</tr>
<tr>
<td>133</td>
<td>Rozha Azmar</td>
<td>BIOL</td>
</tr>
<tr>
<td>134</td>
<td>Clifford Rodgers</td>
<td>BIOL</td>
</tr>
<tr>
<td>135</td>
<td>Joe Johnson</td>
<td>BIOL</td>
</tr>
<tr>
<td>136</td>
<td>Brandon Esianor</td>
<td>KINE</td>
</tr>
<tr>
<td>137</td>
<td>Sylvia Loh</td>
<td>BIOL</td>
</tr>
<tr>
<td>138</td>
<td>Brittney Cox</td>
<td>BIOL</td>
</tr>
<tr>
<td>139</td>
<td>Jeremy Cortez</td>
<td>BIOL</td>
</tr>
</tbody>
</table>
Abayan, Kenneth Munoz

Using E-learning Tools to Help Scaffold the Problem Solving Process to Solve Stoichiometry Problems

Room: Pedernales at 3:40 PM

Abdullayev, Toyly

Petrography, Stratigraphic Framework and Depositional Environment of the Wolfcampian Carbonate Deposits on the Northwest Shelf and Midland Basin

Poster: 1

Adams, Richard H

Sample sequencing of 40 squamate reptile genomes reveals extensive evolutionary dynamics of genomic repeat element landscapes.

Room: Palo Pinto at 3:40 PM

Adiraju, Venkata K

Development of metal complexes for the activation of Nitrous oxide

Room: Pedernales at 10:40 AM

Aguirre-Medel, Susana

SURFACE FUNCTIONALIZATION OF β-SiC QUANTUM DOTS

Poster: 128

Ahuja, Pooja

Synthesis, Characterization and Antitumor Activity of a Mixed Metal Ru(II)-Re(I) Complex

Poster: 2
Al Salem, Ohood Bader

The Subsidence Evolution of the Fort Worth Basin in North-Central Texas, U.S.A.

Room: Pedernales at 8:00 AM

Al Ameen, Mahdi Nasrullah

CuedR: A Novel Approach Towards Usability-Security Tension in User Authentication

Room: Red River at 8:40 AM

Ali, Waqas

Thermal Focusing and Separation of Selective Proteins on Microheater Platforms

Room: Concho at 11:00 AM

Allen, Benjamin Thomas

Prey-Switching in Response to Intraguild Predation Risk in Dragonfly Nymphs

Room: San Saba at 8:20 AM

Aman, Kelly C

Mathematics Research - An Illustrative Example

Room: Palo Pinto at 11:20 AM

Amirabadi, Mehrdad

Changing node selection policy to improve performance in Tor network

Room: Red River at 11:00 AM

Amissah-Aidoo, Kharrolyn

EMPOWERING INNOVATIONS THROUGH DESIGN
THINKING

Room: San Saba at 1:40 PM

**Anderson, Lindsey R**

Creating Black and Brown Female Disability: Historical Assumptions and Independent Realities

Room: Guadalupe at 8:40 AM

**Andrew, Audra**

Differential gene expression underlying the extreme physiological remodeling of the Burmese python intestine upon feeding

Room: Palo Pinto at 2:00 PM

**Armstrong, Jonathan D**

Obtaining Displacement Measures from Inertial Sensors to Quantify Human Steadiness/Tremor

Poster: 3

**Aruwajoye, Olumide O**

XANES and Raman Analysis of Necrotic Trabecular Bone of the Femoral Head

Poster: 4

**Asih, Sali R**

Perceived Injustice is Associated with Psychosocial Distress and Sedatives Use in Chronic Disabling Occupational Musculoskeletal Disorder (CDOMD) Population

Room: Neches at 1:20 PM
Atmeh, Ghassan M

Neuro-Adaptive Control of a Humanoid Robot for Walking

Room: Red River at 1:40 PM

Azmar, Rozha

The Effect of Test-Order on the Sensory Organization Test

Poster: 128

Balakrishnan, Namrata

Adaptive robotic teacher for gesture imitation learning

Poster: 5

Banait, Arya S

Experimental Analysis of Patterned Growth of Micropores in Poly-Dimethylsiloxane (PDMS)

Room: Guadalupe at 1:20 PM

Barbery, Monica R

Experimental determination of high velocity frictional behavior using a modified Torsional Kolsky Bar Apparatus

Poster: 6

Barnett, Tracey M

Cardiovascular Disease Risk Factors and Depression for African American Women who served in the Military and those that did not. Results from a National Longitudinal Survey

Room: San Saba at 3:00 PM
Barron, Mayra

Teresa Mendoza, La Reina del Sur Controversial Rise to Popularity in Telenovelas

Room: Guadalupe at 10:40 AM

Bashyal, Amit

Neutrinos and the Neutrino Experiment, an Effort to Understand the Universe

Room: San Jacinto at 3:40 PM

Bates, Tiler K

Homosocial Bonds and the Female Experience in Contemporary American Literature

Room: Guadalupe at 9:20 AM

Beach-Letendre, Joshuah Myron

Coral reefs under attack: Understanding how temperature is shifting the coral-microbe equilibrium in a major reef building coral

Room: San Saba at 9:20 AM

Bellah, Md. M

Analysis of Concrete Mixed with Carbon Nanomaterials

Room: Concho at 11:40 AM

Bennett, Katherine E

Professional or Personal? Examining the Agenda-Setting Surrounding Texas Senator Wendy Davis’ Filibuster

Poster: 7
Beyer, Jennifer L

Geomechanical study of the formation, deformation, and internal structure of kilometer-scale sandstone injectites, Sheep Mountain Anticline, WY

Room: Pedernales at 8:40 AM

Bhan, Arunoday K

Histone methyl-transferase EZH2 is transcriptionally regulated by estradiol and dysregulated by estrogenic endocrine disruptors

Room: Pedernales at 9:40 AM

Bhawal, Ruchika

Large scale profiling of post translational lipid modified proteins by tandem mass spectrometry.

Room: Pedernales at 10:20 AM

Bhawal, Sumit S

Investigating a new chemical space within Thiamin (Vitamin B1) Biosynthetic Pathway: The case of HMP Kinase

Room: Pedernales at 11:00 AM

Biles, Kelsey

Effects of Predator Cues on Daphnia Life History Traits across Multiple Generations

Poster: 106

Bokka, Apparao

Catalytic Olefin Hydrosilylation Reactions: Synthesis Towards Cholesterol Reducing Agents
Poster: 8

**Bolton, Joshua D**

From Photons to Electrons: Silicon Photomultipliers

Room: Guadalupe at 1:40 PM

**Bradford, Evan M**

THE FEAR-AVOIDANCE COMPONENTS SCALE: A NEW MEASURE OF PAIN-RELATED FEAR-AVOIDANCE

Room: Neches at 1:40 PM

**Broun, Reza**

Comparative Sustainability analysis of Bioreactor landfills: Aerobic Bioreactor landfill vs. anaerobic bioreactor landfill

Room: Concho at 3:20 PM

**Browning, Darcey N**

Information Packaging with Hashtags: Repair on Twitter

Room: Neches at 8:20 AM

**Bryant, Dante D**

Suicidality and Health Risk Behaviors among Youth in Juvenile Detention

Room: San Saba at 3:40 PM

**Bui, Loan T**

Flower Micro-channel Device for Cancer Cell Migration Study

Room: Palo Pinto at 9:40 AM
Burse, Jacqueline R

A Review of the Theoretical Frameworks Within the Journal of the Society of Social Work and Research

Poster: 9

Butler, Brandon

Dog behavioral patterns in dog parks

Room: Guadalupe at 8:00 AM

Caballero, Jennifer

The fight and struggle to survive

Poster: 125

Campbell, Throy Alexander

A Phenomenological Study on International Doctoral Students’ Acculturation Experiences at a U.S. University

Room: San Saba at 11:20 AM

Cao, Nguyen H

Assessing the cooling effect of Joe Pool Lake towards the Urban Heat Island (UHI) phenomenon in the North-Central Texas region over the period of November 2012 - November 2013.

Room: San Jacinto at 10:20 AM

Card, Daren C

Genome-wide evidence of evolution in the invasive Florida python population

Room: Palo Pinto at 1:00 PM
Carlton, Doug D

Time-Lapsed Study of Groundwater Quality in Areas of Hydraulic Fracturing and Natural Gas Extraction

Room: Pedernales at 11:20 AM

Carmickle, Rachel

Conducting a common garden experiment: Investigating the phenotypic differences of a native prairie grass (*Schizachyrium scoparium*) in search of ecotypes

Poster: 116

Carter, Ashley G

A theoretical model of coinfection dynamics: Modeling competition dynamics between *Borrelia burgdorferi* and *Anaplasma phagocytophilum* within a human host.

Room: San Jacinto at 8:40 AM

Chang, Yun-wei

Determination of Nicotine Residue in Fish with QuEChERS Sample Preparation Method

Poster: 10

Chivers, Morgan T

A Historiography of Rock Crystal Funerary Art in Early Buddhism

Room: Neches at 9:00 AM

Chow, Glady

Using digital media to foster cultural interaction of Canadian-Born Chinese

Room: Neches at 8:40 AM
Christian, Thomas M

An Examination of Transient Affective States and Religious Experiences at a Zen Meditation Retreat: A Pilot Study

Poster: 11

Cohen, Isaac

The Development of a Hybrid Energy Storage Module (HESM) Using Commercial Off the Shelf Technology

Poster: 12

Cortez, Jeremy D

Role of Reverse Transcriptase Domain 0 in Non-LTR Retrotransposons

Poster: 128

Cox, Brittney

Dynamics of Bison and Prairie Grass

Poster: 128

Crowell, Joshua K

An Investigation Into The Rate-Determining Step Of Cysteine Dioxygenase

Poster: 13

Dasmahapatra, Atreyi

Structure and Thermochemistry of Hafnium-Silicate Glasses

Poster: 14
Datta Kumar, Prathibha

Anomaly detection in big data; A Cloud based machine learning solution

Room: Red River at 10:20 AM

Deb, Paromita

Mechanism of transcriptional regulation of EZH2 (H3K27 methyltransferase) by 17βestradiol and estrogenic endocrine disrupting chemicals

Poster: 15

DeBellevue, Michael

Modeling the Effectiveness of Integrated Pest Management in Discrete Time

Poster: 127

Deliz, Michael A


Room: Neches at 10:20 AM

Domingues, Susana

Study of function of two young nuclear transport retrogenes (Dntf-2r and Ran-like)

Room: San Saba at 8:00 AM

Eiland, Richard M

Flow Rate and Inlet Temperature Considerations for Direct Immersion of a Single Server in Mineral Oil

Room: Red River at 3:00 PM
Elizalde, Ciel

Effects of Shale Natural Discontinuities on Stress Perturbations and Related Hazards in Underground Coal Mines

Poster: 16

Engel, Trevor M

Madness, Art, and Pilgrimage in Medieval Europe

Room: Guadalupe at 8:20 AM

English, JennahRose Shakespeare

A Lyrical Desperation: Exploring “Alas, and did my Savior bleed...” and “Don’t Let the Sun (Go Down on Me)” in A Visitation of Spirits

Room: Guadalupe at 9:40 AM

Esianor, Brandon I

The Effect of Caffeine on Neurocognitive Testing using ImPACT

Poster: 128

Fakoor, Rasool

Can prostate cancer be useful in detecting breast Cancer?

Room: Red River at 9:20 AM

Fan, Hui

Probing in vitro antioxidant mechanism of flavonoids: Reactive oxygen species induced oxidative degradation of quercetin and catechin in a continuous stirred tank reactor
Farrow, Jeremy H
The Role of Social Dominance Orientation in the Management of Existential Threat
Poster: 124

Felderhoff, Brandi Jean
The impact of pre-entry factors on veteran's success in a Compensated Work Therapy program
Poster: 17

Fordjour, Emmanuel Y
_In Vitro_ Activity of Paired Antibiotic Combinations against _Clostridium difficile_

Room: San Jacinto at 9:00 AM

Frickle, Samuel J
Effects of Population Density on the Spread of Disease
Room: San Jacinto at 1:40 PM

Fuess, Lauren E
Seasonal and annual variation in immune response of the hard coral _Acropora palmata_
Room: San Saba at 10:20 AM

Gandy, Kellen C
Associative Memory in the Dorsolateral Prefrontal Cortex
Poster: 18
Gao, Min

Processes and mechanism of Laramide deformation: constraints from 2D flexural subsidence modeling of intermontane basins

Room: Pedernales at 8:20 AM

Garrett, Bryan A

Red, White and, Blue: The Creation of the Syrian Nation-state in the Atlantic World, 1890s-1930s

Room: Neches at 9:40 AM

Gazor, Afsoon

Parent mental health status and child temperament and externalizing behavior problems: A preliminary investigation.

Poster: 112

Godbole, Ameya Rajendra

SMIRFF: Smart, Maintenance, Inspection, and Repair Free-Flyer

Room: Red River at 2:00 PM

Gonzalez, Victor I

British Petroleum Gulf Deep-water Oil Spill: When a Business Becomes Unethical

Room: San Jacinto at 2:00 PM

Grandinetti, Jace E

Improving the Life of PMTs by Reducing Ion Feedback with Powered Grids

Poster: 126
Green, Michelle L

Investigating differences between urban and rural populations of the native Texas prairie grass Little Bluestem (*Schizachyrium scoparium*)

Room: San Saba at 9:00 AM

Guerra, Rosalinda

Woman’s Repression and Rupture  In The House of Bernarda Alba by Federico García Lorca

Room: Guadalupe at 10:20 AM

Guerrero, Alonna

Trace Detection of Catechins in Human Blood Plasma using Trap-and-Elute Liquid Chromatography ñ Tandem Mass Spectrometry to Facilitate Kinesiology Study

Poster: 105

Guzman, Sarasvati

An Overview Of Self-Efficacy Related To Physical Activity In Children With Developmental Coordination Disorder

Poster: 111

Hales, Nicole R

Phylogeography of the Mojave Rattlesnake (*Crotalus scutulatus*) in the U.S. and Mexico

Poster: 117

Hanif, Madiha M

Microfluidic Device to Rapidly Generate Hollow Alginate Microfibers with Controlled Wall Thicknesses

Room: San Jacinto at 9:20 AM
Hansen, Danielle Renee

Patterned Electrical Neuromuscular Stimulation on Muscle Strength in Healthy Normals: A Pilot Study

Poster: 20

Haque, S M Taiabul

Towards Applying Psychometric Theory in Measuring Usable Security Constructs

Room: Red River at 8:20 AM

Hariharan, Prashant

Co-delivery of anti-cancer drug with pH-sensitive and photoluminescent nanoparticle for prostate cancer

Poster: 21

Harris, Amber L

Differential Local Field Potential Activity in the Anterior Cingulate and Primary Somatosensory Cortices During Peripheral Nerve Stimulation

Room: Neches at 2:20 PM

Hartzell, Meredith M

Does the economy affect functional restoration outcomes for patients with chronic disabling occupational musculoskeletal disorders?

Room: Neches at 3:40 PM

Hasan, Mohammad R

Fabrication of Integrated Microscale Ion Exchange Membrane Suppressor and Conductivity Detector

Room: Concho at 4:00 PM
Hawley, Alicia C
Comparative theoretical perspectives: Intimate partner violence through the lens of feminist and empowerment theories
Poster: 22

Heisserer, Adam
Zero-Energy Responsive Metallic Facade System
Room: San Saba at 1:00 PM

Hejduk, Philip B
Gene Flow Within the Central Texas Eurycea of the Eastern Blepsimolge and Typhlomolge Clades
Room: Palo Pinto at 3:00 PM

Hendricks, Alissa D
Why Sex is Important: Radically Different Lifespan of Genetically Identical Individuals
Room: Guadalupe at 2:00 PM

Highland, Victoria M
Analysis of several factors contributing to increased fertility rates in India: Religion as compared to Education and Wealth
Poster: 23

Hodges, Treyce J
Independent Segmentation and Specification Processes in Spine Development of Domestic Dogs
Poster: 128
Hoffman, Timothy

Simulations of the ATLAS Forward Proton Detector.
Room: San Jacinto at 3:00 PM

Hoops, Lucas N

FaÁades that Mitigate Noise
Room: San Saba at 2:00 PM

Hornick, Devin L

Cherokee in Hand: Using Mobile Devices to Teach Complex Real Language
Poster: 114

Hossain, Mohammad S

Cancer cell inhibitor with modified vitamin B2 structure
Room: Pedernales at 2:00 PM

Howe, Carol J

Parent Health Literacy and Communication with Diabetes Educators in a Pediatric Diabetes Clinic: A Mixed Methods Approach
Room: San Saba at 11:40 AM

Ibana, Melvin

Interception Ability and Tool Use in Children With or Without Developmental Coordination Disorder (DCD)
Poster: 24

Imani, Mohsen

Improving Tor performance with smarter relay selection
Poster: 25

Islam, Md Mazharul

The effects of bonding layer on ultrasound generation and sensing using PWAS

Room: Red River at 1:00 PM

Islam, Muhymin

Mechanical Discrimination of Tumor Cells from Electrical Data Recorded in Microfluidic Channels

Room: Concho at 11:20 AM

Ivey, Dorothea L

Stressors and Social Support Among African American Grandparents Raising Grandchildren

Poster: 26

Jacob, Stephanie

Impact of stress on sleep in cancer patients

Poster: 115

Jayaram, Nandish

Querying Knowledge Graphs by Example Entity Tuples

Poster: 27

Jayaratna, Naleen B

The Use of Cheap Methane for Feedstock of Value-added Chemicals

Room: Pedernales at 3:00 PM
Jenney, Colin Timothy

Gender Differences in Crowding and Equipment Use in a University Fitness Center

Room: Neches at 2:00 PM

Johnson, Joe J

Synthesis of flavin derived organic photocatalysts

Poster: 128

Johnston, Benjamin R

RADIO-FREQUENCY STIMULUS INDUCED NEUROMA PAIN

Room: Palo Pinto at 9:20 AM

Joshi, Sarthak R

Green Energy Tapping from Building Doors

Room: Red River at 2:20 PM

Kajumba, Mayanja M

Local Field Potentials Change in the Central Nucleus of the Amygdala (CeA) in Response to Noxious Stimulation

Poster: 28

Kamte, Namrata J

Microwave-Based Navigation of Femtosatellites using On-Off Keying

Poster: 29
Khan, Laila

Lingering effects of Multiple Concussions on ImPACT and Sensory Organization Test

Poster: 128

Khan, Salman N

Finite Element modeling of Descemet’s Stripping Automated Endothelial Keratoplasty (DSAEK) surgery to improve surgical outcomes

Poster: 30

Kharadi, Roshni R

Towards Understanding the Role of Tesmin/TSO1-like Protein in Stomate-Based Defense against Bacterial Infection in Arabidopsis thaliana.

Poster: 101

Krishnan, Shreyas

The sex-linked gene TYRP1 is the primary color diversity locus in domestic pigeons

Poster: 31

Kulvanitchaiyanunt, Asama

Control of System PHEV Charging StationsControl for a System of PHEV Charging Stations

Room: Concho at 3:40 PM

Lawal, Wasiu A

Integrated Decomposition of Perfluorooctanoic Acid by Palladium Doped Nanoscale Zerovalent Iron and Persulfate.
Laws, Coridon A

Direct cell-to-cell contact is an important mechanism in the impact of the toxic alga *Prymnesium parvum* on other species

Room: Palo Pinto at 4:00 PM

Le, Cuong Q

Characterization of an Essential Methanogenic Enzyme: F420H2: NADP+ Oxidoreductase from *Archeoglobus fulgidus*

Poster: 33

Le, Matthew

LIMITING NEUROMA FORMATION AND NEUROPATHIC PAIN AFTER PERIPHERAL NERVE INJURY USING A MULTI-LUMINAL CONDUIT IMPLANT

Room: San Jacinto at 11:40 AM

Lee, Hae-in

The role of rhizobial lipopolysaccharide (LPS) in the soybean-*Bradyrhizobium japonicum* symbiosis

Room: San Saba at 11:00 AM

Lee, Lyndon

Organ-Specific Migratory Response of Cancer

Room: Palo Pinto at 9:00 AM

Li, Li

Expanding Analytical Capabilities in MALDI Mass Spectrometry using a 3-Hydroxycoumarin-Containing
Binary Matrix
Poster: 34

LI, Wei
Influences of Structural Factors on Catalysis in Mouse Cysteine Dioxygenase
Poster: 35

Loh, Sylvia H
Microfluidics: An innovative way to assess cancer metastasis
Poster: 128

Lopez, Diego A
Vitamin B1 Pathway, A Distinct Source for Novel Antibacterial Development
Room: Pedernales at 3:20 PM

Lyle, Rachel M
Measured Noise Levels in the Hospital with Correlating Patient Perception
Room: Guadalupe at 11:20 AM

Lynch, Erin S
Healing Medieval Disability: Pilgrims and the Miracle Window of Canterbury Cathedral
Room: Guadalupe at 9:00 AM

MacNee, Rayanne
SELF-EFFICACY, MEDICATION ADHERENCE AND BLOOD PRESSURE CONTROL IN MEXICAN IMMIGRANTS
Mahmood, Mohammedarif I
Dynamic Morphological as Diagnostic Modality for Cancer using Aptamer Functionalized Chips
Room: Concho at 10:20 AM

Maldonado, Jose A
Gene Duplication in Mitochondrial Genomes
Room: San Jacinto at 1:20 PM

Manoj, Niraula
Design principles for high-performance nano-structured thin-film bandpass filters
Poster: 36

Mansur, Nuzhat
Detection of Metastatic Breast Cancer Cells for Early Diagnosis and Metastatic Determination
Room: Concho at 9:20 AM

Marchi, Monica
Going Against The “Old Ways:” The Evolvement of Italian American Women’s Agency
Room: Neches at 11:20 AM

Martinez, Wendy
Dynamic stability against backward loss of balance while walking over an obstacle in the elderly compared to young subjects
Poster: 121
Matthews, Nicholas

The Psychological Reality of Stems in Cherokee and the Effect on Dictionary Creation

Poster: 123

Mcquillan, James

A preliminary phylogeny of the Palearctic naked-toed geckos (Reptilia: Squamata: Gekkonidae) with taxonomic implications

Room: Palo Pinto at 1:40 PM

Miranda, Nicolas

Izztaccihuatl Tlakuikatl (Song of Iztaccíuatl)

Room: Guadalupe at 1:00 PM

Molina, Litza R

Santa Muerte: The Saint of Second Chances

Room: Guadalupe at 11:00 AM

Morris, Matthew T

Concrete Fabric Facade

Poster: 38

Moss, Kamiah T

The Relationship Between Family and Friend Social Support on Balance in Older Adults

Poster: 39

Muhammad Usman, Raza

Debye Effects from Adjacent Nanopores towards High Throughput Analysis of Biological Molecules
Mwania, Munuve

Covalent Expression of Organic Moieties on Silicon Carbide Quantum Dots

Room: Pedernales at 1:00 PM

Nagaraj, Shreyas

Influence of variation in CPU utilization on the Rack Level fan configuration as a cooling technique for high end servers

Room: Red River at 1:20 PM

Nagarajan, Yashaswini

A Combination of Biological and Analytical Methods to Pursue Elusive Medicinal Compounds from Natural Products

Poster: 122

Nahar, Shamsun

Text Analysis of Social Development as a Concept

Room: San Saba at 3:20 PM

Nashawi, Mouhamed T

Influence of Nutrient Concentration on EPS Production and Biofilm Growth

Poster: 118

Nazari, Behzad

Flash Flood Inundation Mapping for the City of Fort Worth
Room: Concho at 1:40 PM

**Nazi, Azade**

Automatic User Feedback System for Reviewing Web Items

Room: Red River at 8:00 AM

**Ng, Ying Wun Yvo**

The continuous study of the 30 cm x 30 cm gas electron multiplier detector

Room: San Jacinto at 3:20 PM

**Nguyen, Cuong M**

Enhancement of Implantable Neurotransmitter Sensors Using Encapsulated Biodegradable Materials

Room: Concho at 10:40 AM

**Nguyen, Dat X**

pH-responsive Biodegradable Photoluminescent Nanoparticles for Lung Cancer Treatment

Poster: 40

**Nguyen, Dianna H**

Peripheral Nerve Guidance Using Muscle and Skin Targets for Neural Interfacing

Room: San Jacinto at 9:40 AM

**Nguyen, Jessica T**

Evaluation of HMP-Kinase Analogs, A New Strategy for Antibiotics

Poster: 104
Nguyen, Luan

Model-Based Design and Analysis of a Reconfigurable Continuous-Culture Bioreactor (Work-in-Progress)

Room: Red River at 11:20 AM

Nimmo, John Paul

Deducing Structural Details in Silicon Oxycarbide from 29-Si Nuclear Mass Resonance Spectroscopy

Room: Pedernales at 1:20 PM

Nixon, Joseph

Variations in Indoor and Outdoor Particulate Matter at UT Arlington

Poster: 128

Norouzi, Amir

Consistency and Accuracy Assessment of Tipping Bucket Rain Gauge Measurements

Room: Concho at 1:00 PM

Omaña, Jennifer

Exaltation of Cultural Mestizaje as a Societal Ideal in the Early Twentieth Century Venezuelan Works of Róulo Gallegos and Ramó Díz Sáchez

Room: Neches at 11:00 AM

Onyiorah, Chris E

Thermal Analysis in Data Center Cooling

Poster: 41
Oyugi, Mercy A

Kinetic characterization of the recombinant F420-Dependent Glucose-6-Phosphate Dehydrogenase from *Mycobacteria tuberculosis*.

Poster: 42

Pandey, Nikhil

Biodegradable Temperature sensitive and fluorescent magnetic nanoparticles towards targeted bio active factor delivery.

Poster: 43

Patel, Darshankumar C

Convenient approach to gram scale synthesis of (R)-(+) -2’Amino-1,1’binaphthalen-2-ol (NOBIN) using (R)-(+) -1,1’Binaphthyl-2,2’diamine (BINAM)

Poster: 44

Patel, Prajay M

Transformation Paths in Boron Nitride: from Soft to Hard Materials

Room: San Jacinto at 8:20 AM

Perez, Tracie R

Design of a Telemetry Link for Direct Communication between Femtosatellites in Low Earth Orbit and Earth Ground Stations

Poster: 45

Peterson, Heather Leona

Perceptions of Gender Identity Formation: A Phenomenological Study of Age Versus Distance in a
Sample of Lesbian and Gay Individuals
Poster: 46

Pharr, James T
Functionality of Organic Hydroperoxide Resistance Genes in Nitrogen-Fixing Soybean Symbionts
Room: Palo Pinto at 2:20 PM

Pokhrel, Kushal
Porous Polyurethane Microspheres for in Vitro Drug Screening and Tissue Engineering Application
Poster: 47

Pradhan, Asheesh
Study of Geogrid Reinforcement Using Two Dimensional Discrete Element Method
Poster: 48

Pramanik, Abhijit
Isolation and characterization of a novel nickel(II) ammonia complex
Room: Pedernales at 1:40 PM

Prejean, Brian
Effects of vision on dynamic stability against backward loss of balance in young and elderly subjects.
Poster: 49

Price, Destiny S
An Analysis of Sports Industry Career Preparation with a Focus on Sports Marketing Undergraduate Curricula
Room: San Jacinto at 2:20 PM

Puerto, Gustavo A

Improving Surgical Precision by using Long Term Augmented Reality on Live Endoscopic Videos

Room: Red River at 10:40 AM

Punnakitikashem, Primana

Drug-releasing biodegradable elastomeric fibers for vascular engineering

Poster: 50

Purdum, Rachel L

THE PAIN DISABILITY QUESTIONNAIRE: A VALIDATION OF ITS UTILITY, RESPONSIVENESS AND ONE-YEAR OUTCOMES IN A CHRONIC DISABLING OCCUPATIONAL MUSCULOSKELETAL DISORDER POPULATION

Room: Neches at 1:00 PM

Rafieei Nasab, Arezoo

Comparative evaluation of multiple radar-based precipitation estimates for North Texas

Room: Concho at 1:20 PM

Rahman, Habibur

Ranking Item Features by Mining Online User Item Interactions

Poster: 51

Rahman, Shammi

Development of Linear Regression Models for Predicting Water Quality Parameters and Estimating Methane
Generation Rates from Anaerobic Treatment of Vinasse.
Room: Concho at 2:00 PM

Rahman, Ziaur

FUZZY LOGIC APPROACH: A BETTER SCOPE FOR THE DEVELOPMENT OF A FREEWAY INCIDENT RATING SYSTEM

Poster: 52

Ramirez, Sirah

What Impact Does Education Have On Latin American Women?

Poster: 119

Rana, Loveneesh

Sizing X-20 DynaSoar Orbital Mission using Space Planner's Guide

Poster: 53

Read, Thomas Cord

Digitally Re-configurable Formwork

Room: San Saba at 1:20 PM

Riahi, Elmira

Evaluation of Structural Performance of Epoxy Linings for Manhole Rehabilitation using Laboratory Testing and FEM Simulations

Room: Concho at 2:20 PM

Riazi, Hamideh

Improving water quality forecasting using HSPF via real
time data simulation
Room: Concho at 3:00 PM

Rodgers, Clifford D
Genetic mapping and characterization of the recessive red locus in domestic pigeons
Poster: 128

Sachs, Rod S
Decolonizing Immigration
Room: Neches at 11:40 AM

Sahi, Sunil K
Organic-inorganic hybrid scintillating materials
Room: San Saba at 9:40 AM

Sahini, Manasa
Thermal modelling of remote radio head units
Room: Red River at 3:20 PM

Sapkota, Madhab
Development of Expression Vector for Clostridium difficile and its Use in Antibiotics Target Validation
Room: Palo Pinto at 3:20 PM

Satyal, Suman
Orbital configuration and stability analysis of the giant planet in the HD 196885 binary star system
Room: Palo Pinto at 10:40 AM
Sayles, Bailey N

Quantitative Comparison of Metastasizing and Non-metastasizing Breast Cancer Cell Migration via Various Dimension Microchannels

Room: San Jacinto at 11:20 AM

Schield, Drew R

Using genome-wide single nucleotide polymorphisms to estimate patterns of gene flow and population structure in *Crotalus atrox*

Room: San Saba at 10:40 AM

Schneider, Mathew W

The Influence of Sleep on ImPACT Performance

Poster: 120

Schuman, Donna L

Bridging the Gap: The Use of Explicit Theory in *Research on Social Work Practice*

Poster: 54

Shah, Ami Atul

Effect of Fluctuating Temperature on Performance of Grease

Room: Concho at 8:40 AM

Shahriar, Md. Mehrab

CONNECT: Exploiting Human Mobility Pattern for Constructing a Consistent and Connected Virtual Oppnet Backbone

Room: Red River at 9:40 AM
Shaikh, Humera M

Environmental variation and its effect on fitness and immunity in wolf spiders

Room: San Jacinto at 10:40 AM

Shankar, Soundarya P

A Study Correlating Hypnotic Susceptibility with Relaxation Techniques

Poster: 55

Sharma, Vibhu

Effect of Blends of Ashless Antiwear Additives and ZDDP on Tribofilms Formation in Base Oil Mixes

Room: Concho at 8:20 AM

Shashoua, Kimberly V

Play Two Hours and Call Me in the Morning: Video Games as Therapy

Room: San Saba at 2:20 PM

Sheng, Cheng

Thermospheric winds around the cusp region

Room: Palo Pinto at 10:20 AM

Shinde, Kaustubh R

Smart Gloves For Arthritis Diagnosis

Poster: 103

Shurbet, Cadi

The Influence of Mood on Sensory Organization Test Performance.
Sloan, Shane M
A Pfennig Saved: The Complexity of German Saving Behavior
Poster: 107

Smith, Jonathan J
PSYCHOLOGICAL ATTRIBUTES OF CHILDREN WITH DEVELOPMENTAL COORDINATION DISORDER
Poster: 109

Sreeram, Vishnu
VERIFICATION OF CFD MODEL OF AN AZTEC SHOW UNIT
Room: Red River at 3:40 PM

Steffen, Kelcy
Skeletal malformations in an invasive lizard species
Poster: 113

Steffenson, Matthew Michael
Starvation and its effects on wolf spider (Tigrosa helluo) fitness
Room: Palo Pinto at 1:20 PM

Subedi, Bishnu P
Characterization of the tRNA-modifying non-heme diiron monooxygenase, MiaE
Poster: 56
Sykes, Teresa M

Simulated expansions of oxygen minimum zones in the warmer ocean waters.

Room: Pedernales at 9:00 AM

Szrot, Lukas

The Demotion of Humanity

Room: Palo Pinto at 8:20 AM

Ta, Vivian P

Examining the Effect of Latent Semantic Similarity in Unstructured Same-Sex Dyadic Interactions

Room: Neches at 3:20 PM

Tatz, Elizabeth L

Verbs of Motion in Ojibwe

Room: Neches at 8:00 AM

Thakore, Dheeraj

Urethane Doped Polyester (UPE) based nanoparticle scaffolds for the treatment of Peripheral Arterial Disease

Poster: 57

Thirumuruganathan, Sarava

Aggregate Estimation Over Twitter

Room: Red River at 9:00 AM

Torres Ramos, Alison

Real Men do Cry: Sentimentality and Homosociality in Piri Thomas' *Down These Mean Streets*
Room: Neches at 10:40 AM

**Toth, Kristina**

Analyzing Differences in Scientist and Science Perceptions, Self-Efficacy, and Science Enjoyment between Fourth Grade English Speaking and Hispanic ELL Students

Poster: 100

**Tran, Tran T**

Li insertion in SiCO ceramics

Room: San Jacinto at 8:00 AM

**Trinh, Shannon T**

Biosynthetic Nerve Implants for the Regeneration of Peripheral Nerve Gaps and Evaluation of Functional Recovery

Room: San Jacinto at 1:00 PM

**Trog, Gabriela**

Tandem Dual Hydrosilylations of alpha,beta-Unsaturated Carbonyl Compounds

Poster: 58

**Velazquez, Luis**

IDENTIFYING NOVEL CELLULASE AND XYLANASE ACTIVITIES THROUGH SCREENING OF A FOSMID LIBRARY FROM A TERMITE ASSOCIATED *VERRUCOMICROBIUM*

Room: San Jacinto at 11:00 AM

**Velten, Megen F**

Changes in the Structure of Bone of a Low Phosphate
DMP1-null Murine Model
Room: Concho at 9:00 AM

Wang, Evelyn H
Antibacterial Drug Discovery from Natural Products Assisted by Novel Mass Spectrometry Technique
Room: Pedernales at 11:40 AM

Wanigasekara, Maheshika S
Profiling functional arginine residues of proteins by selective chemical labeling and mass spectrometry
Poster: 59

Watson, Wesley P.
Assessing China's Military Power in a U.S. World Order
Room: Palo Pinto at 8:00 AM

Weidemann, Danielle G.
Intact Morphine Conditioned Place Preference
Poster: 60

Wells, Cory Douglas
Race and Politics in the Cartoons of Thomas Nast
Room: Neches at 9:20 AM

Wey, Michael
Kinetic Mechanisms of Mutation-dependent Harvey Ras Activation and Their Relevance for Development of Costello Syndrome
Poster: 37
White, Derek Andre

Limits of In Vivo Bioluminescence Imaging of Prostate Tumor Development: Caveat Emptor

Poster: 61

White, Kana

Syntheses of Miscellaneous Azides and their Reactivity with N-Heterocyclic Carbenes

Poster: 108

White, Michelle Marie

Examining the Rostral and Caudal Anterior Cingulate Cortex in Pain Processing

Poster: 62

Willis, Jarryd T

Women & Compromise in U.S. Politics

Room: Neches at 3:00 PM

Womack, Andrew W

Neonatal Ketamine Exposure Causes Long-Lasting Deficit of Spatial Learning Associated with Impairment of Synaptic Plasticity in the Forebrain Cortex of Rats

Poster: 102

Woods, Daria K

Agency as Identity

Room: Guadalupe at 11:40 AM

Wu, Jinglei

Naturally derived biomimetic hydrogels for cartilage
regeneration

Poster: 63

**Xu, Chengdong**

Paired ion electrospray (PIESI) mass spectrometry for the highly sensitive determination of acidic pesticides in water

Room: San Saba at 8:40 AM

**Yetkin, Oguz**

Blink Controlled Brain Machine Interface Using EEG

Room: Palo Pinto at 8:40 AM

**Zabihi, Maryam**

Dynamic Managed Lane Pricing under Freeway Incident Conditions

Poster: 64

**Zaman Khan Malayeri, Hesam**

Innovative Sensing Network for In Situ Monitoring of Biological Toxins and Harmful Algal Blooms

Poster: 65

**Zamora, Juan R**

Provenance of deltaic sandstone in the Fort Worth Basin: constraints from detrital zircon U-Pb geochronology

Room: Pedernales at 9:20 AM

**Zhang, Nan**

Development and evaluation of thermo-TDR probe
Poster: 66

Zhao, Cong

Spatiotemporal processing for fast image update of functional imaging probes

Room: Palo Pinto at 11:00 AM

Notes...
Women’s and Gender Studies, ACES Special Session

The following program was held on Tuesday, March 25th.

Sponsored by the Woman’s & Gender Studies Program as part of the Women’s History Month Lecture Series. Co-sponsored by the UTA Library. Made possible by a grant from the Dallas Women’s Foundation.

10:00 am Panel #1 Undergraduate Presenters

<table>
<thead>
<tr>
<th>Student</th>
<th>Title</th>
<th>Faculty Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindsey Anderson</td>
<td>Creating Black and Brown Female Disability: Historical Assumptions and Independent Realities</td>
<td>Ray Jordan</td>
</tr>
<tr>
<td>Mayra Barron</td>
<td>Teresa Mendoza, La Reina del Sur Controversial Rise to Popularity in Telenovelas</td>
<td>Christopher Conway</td>
</tr>
<tr>
<td>Tiler Bates</td>
<td>Homosocial Bonds and the Female Experience in Contemporary American Literature</td>
<td>Desiree Henderson</td>
</tr>
<tr>
<td>Rosalinda Guerra</td>
<td>Woman’s Repression and Rupture in The House of Bernarda Alba by Federico Garcia Lorca</td>
<td>Christopher Conway</td>
</tr>
</tbody>
</table>

11:00am Panel #2 Graduate Presenters

<table>
<thead>
<tr>
<th>Student</th>
<th>Title</th>
<th>Faculty Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arunoday Bhan</td>
<td>Histone methyl-transferase EZH2 is transcriptionally regulated by estradiol and dysregulated by estrogenic endocrine disruptors</td>
<td>Subhrangsu Mandal</td>
</tr>
<tr>
<td>Nuzhat Mansur</td>
<td>Detection of metastatic breast cancer cells for early prognosis and residual disease state determination</td>
<td>S.M. Iqbal</td>
</tr>
</tbody>
</table>
11:00am Panel #2 Graduate Presenters

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Title</th>
<th>Faculty Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alison Torres Ramos</td>
<td>Real Men do Cry: Sentimentality and Homosociality in Piri Thomas’ Down These Mean Streets”</td>
<td>William Arce</td>
</tr>
<tr>
<td>Jarryd Willis</td>
<td>Women and Compromise in U.S. Politics</td>
<td>William Ickes</td>
</tr>
</tbody>
</table>

12pm Panel #3 Poster Presentations

<table>
<thead>
<tr>
<th>Student</th>
<th>Title</th>
<th>Faculty Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sirah Ramirez</td>
<td>What Impact Does Education have on Latin American Women?</td>
<td>Christopher Conway</td>
</tr>
<tr>
<td>Katherine Bennett</td>
<td>Professional or Personal? Examining the Agenda-Setting Surrounding Texas Senator Wendy Davis’ Filibuster</td>
<td>Thomas Christie</td>
</tr>
<tr>
<td>Alicia Hawley Barker</td>
<td>Comparative theoretical perspectives: Intimate partner violence through the lens of feminist and empowerment theories</td>
<td>Beverly Black</td>
</tr>
<tr>
<td>Victoria Highland</td>
<td>Analysis of several factors contributing to increased fertility rates in India: Religion as compared to Education and Wealth</td>
<td>Vijayan Pillai</td>
</tr>
<tr>
<td>Heather Peterson</td>
<td>Perceptions of Gender Identity Formation: A Phenomenological Study of Age Versus Distance in a Sample of Lesbian and Gay Individuals</td>
<td>Julie Nagoshii</td>
</tr>
</tbody>
</table>

The Women’s and Gender Studies Program fosters the examination of women and gender through an interdisciplinary lens. Women’s and Gender Studies classes explore social norms and the ways in which race, class, nationality, and history shape gender identity.
**NSF GK-12 MAVS Program, ACES Special Session**  
**Sponsored by the Department of Mathematics**  
The following program was held on Tuesday, March 25th.

<table>
<thead>
<tr>
<th>Time</th>
<th>Presenter</th>
<th>Scheduled</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:40</td>
<td>Dr. Minerva Cordero</td>
<td>Welcome and Introductions</td>
</tr>
<tr>
<td>8:40-8:55</td>
<td>Larrissa Owens</td>
<td>Modeling Cell Populations of Inflammatory Reactions in Post Implant Healing by Differential Equations</td>
</tr>
<tr>
<td>9:00-9:15</td>
<td>Daniel Wood</td>
<td>Nonstandard finite difference schemes for general productive-destructive systems</td>
</tr>
<tr>
<td>9:20-9:35</td>
<td>Kelly Aman</td>
<td>Mathematics Research – An Illustrative Example</td>
</tr>
<tr>
<td>9:40-9:50</td>
<td></td>
<td><em>10 minute break</em></td>
</tr>
<tr>
<td>9:50-10:05</td>
<td>Iris Alvarado</td>
<td>Mathematical Modeling of the Bone Remodeling Process</td>
</tr>
<tr>
<td>10:10-10:25</td>
<td>John Griffis</td>
<td>Branching of Fock representations of the matrix Lie superalgebra $\mathfrak{gl}(1</td>
</tr>
<tr>
<td>10:30-10:45</td>
<td>Andrew Cavaness</td>
<td>Striving to Classify Infinite Dimensional Lie Algebras</td>
</tr>
<tr>
<td>10:45-11:00</td>
<td></td>
<td><em>Break</em></td>
</tr>
</tbody>
</table>
The NSF Graduate STEM Fellows in K-12 Education (GK-12) Program supports fellowships and training for graduate students in science, technology, engineering, and mathematics (STEM). Through interactions with teachers and students in K-12 schools, graduate fellows can improve communication and teaching skills while enriching STEM content and instruction for their K-12 partners.
Acknowledgements

ACES is sponsored in by the Office of the Provost, Office of Research and the Office of Graduate Studies. Additional financial support was provided by College of Business, College of Liberal Arts, College of Engineering, College of Science, College of Nursing, College of Education and Health Professions, School of Architecture, and the School of Urban and Public Affairs.

ACES 2014 Steering Committee

Lisa Berry, Coordinator, Office of Graduate Studies
Dana Dunn, Associate Professor, Sociology
Frank Foss, Assistant Professor, Chemistry and Biochemistry
Raymond Jackson (co-chair), Associate Dean, Office of Graduate Studies
Jennifer Knight, Executive Assistant, Office of Graduate Studies
Joslyn Krismer (co-chair), Director, Academic Analytics and Operations
Mark LaVelle, Assistant Vice President, Office of Development
Daniel Levine, Professor, Psychology
Maria Martinez-Cosio, Assistant Vice Provost for Faculty Development
Patrick Miller, Residence Director, Apartment and Residence Life
Laura Mydlarz, Assistant Professor, Biology
James Perry, Coordinator, Honors College
Mahera (Mimi) Philobos, Assistant Provost
Ashely Purgason, Assistant Dean, College of Science
Les Riding-In, Assistant Dean, College of Liberal Arts
Adrian Rodriguez, Vice President, Graduate Student Senate
ACES Additional Support

Tina Gil, Aramark Catering

Stephen “Bear” Lunce, II, Conference Coordinator, E. H. Hereford University Center

Kevin Schug, Associate Professor, Chemistry & Biochemistry

UT Arlington Facilities Management & Central Receiving

UT Arlington Staff Volunteers

UT Arlington Student Volunteers

Division of Student Affairs

Faculty, Alumni, and University Judges

Graduate Student Senate

Office of Development

Phi Kappa Phi

President’s Sustainability Committee

Women and Gender Studies
What is ACES?

The Annual Celebration of Excellence by Students (ACES) Symposium is a university-wide symposium that showcases the best of UT Arlington’s undergraduate and graduate students’ research and creativity.

About UT Arlington

The University of Texas at Arlington sets the standard for educational excellence in the thriving Dallas-Fort Worth area. With an enrollment approaching 35,000, it’s the second largest institution in the UT System and the sixth largest in Texas. The University is rising in stature through its commitment to transforming the lives of students, pushing the boundaries of knowledge, and serving those around us.

- More than 180 rigorous degree programs
- Ten schools and colleges
- Research centers in all disciplines
- Classified as a Research University/High Research Activity by the Carnegie Foundation for the Advancement of Teaching
- One of the most diverse student population in the nation with students from every state and 123 countries

Contact Us

ACES c/o The Office of Graduate Studies
701 South Nedderman Drive
Box 19185
Arlington, TX 76015-0185
Web: www.uta.edu/aces/