The fear of the LORD is the beginning of wisdom, and the knowledge of the Holy One is understanding.

(Proverbs 9:10)
Thursday, April 20, 2022

5:30-6:30 PM  **Keynote Lecture:** Dr. Mike Ribble, EdD  
“Being Digital Citizens in the Age of Technology: AI and Research in Higher Education”

**Welcome & Opening Remarks:**  
Dr. Richard Ludwick, President

**Location:** Jones Hall  (Virtual & Open to the Public - Free)

6:45-8:15 PM  **Keynote Reception & Poster Presentations**  
**Location:** Center for Science and Health Professionals - Atrium

Friday, April 21, 2022

9:00 AM-12:00 PM  **Oral Presentations & Capstones**

**Location:** Malloy Hall Basement
Undergraduate and graduate students at UST have the opportunity to collaborate with faculty on original work. Student-faculty work embodies our mission to pursue academic excellence, the thrill of discovery, and the creation of an authentic learning community. The Committee on Student Research strives to ensure faculty-mentored student projects remain a key ingredient of the UST experience.

We fund students to conduct research and to present at local and national conferences. Each year hundreds of UST students in the sciences and humanities share their discoveries and creations at the UST Research Symposium. At these symposia and conferences, students advance their research, hone communication skills, and gain valuable professional development and networking opportunities.

As students engage in UST programs, they learn the essential elements of scholarship and inquiry. Through a mentoring relationship, students’ progress to become contributors of knowledge in their fields of study with opportunities to publish in noteworthy publications. Each faculty-student relationship is a collaborative endeavor towards discovery and mastery. We invite students to apply for funding and encourage faculty and staff to become a part of this unique and impactful experience.

2022-2023 COMMITTEE FOR STUDENT RESEARCH SUMMARY

Twenty eight proposals were funded across 9 departments supporting 85 students. The symposium has received 99 research submissions this year. Of these, 43 are oral presentations and 56 are posters. Together they span 13 departments.
2022-2023 COMMITTEE FOR STUDENT RESEARCH MEMBERS

Dr. Matthew Zelisko (Chair)
Dr. Deborah Klesel (Vice-chair)
Dr. Yao-Yuan Yeh
Dr. Michael Boler
Dr. Yijing Cheng
Dr. Anne Gichuri-Echessa
Dr. James Monaghan
Dr. Joe Chieh-Chung Ueng
Dr. Dan Hu
Ms. Kaitlyn Keever

ACKNOWLEDGMENTS

Alexis Scates
Cindy Viaud
Brenda L. Hidalgo
Scotty Lopez
Brandon Green
Anne Lambert
Michelle Lopez
Michelle Hernandez-Perez

Giselle E Dodge
Shannon D. Broussard
Stephanie Canahuati-Crowl
Kate Henderson
Christian Perez Toro
LeAnn Allison
Samantha Snow
Darrin Jones
Dr. Mike Ribble, Ed.D.
Professor of Practice –
Educational Leadership
Kansas State University

TITLE
Being Digital Citizens in the Age of Technology: AI and Research in Higher Education

ABSTRACT
The expansion of technology, and specifically Artificial Intelligence, has changed how many in the field of education see and use information. With the ability to have digital tools generate and manipulate data at rapid rates, we are now faced with the question of who or what created what we read, see, or believe? It is imperative for all users of technology, and higher education research specifically, to have a compass or guide on what is being created and shared. Digital Citizenship sets the framework of what we as users produce, addresses the issue of whether what we produce is representative of the work we have accomplished collectively, and that what we create recognizes what is created by others. Digital technology encompasses the tools used to help generate and/or share our ideas with others in a responsible frame.
BIO

Dr. Mike Ribble is author of several textbooks including: *Digital Citizenship Handbook for School Leaders: Fostering Positive Interactions Online; Digital Citizenship in Schools* (3rd edition); and, *Raising a Digital Child*, which is the latest book he co-authored with Dr. Marty Park, who is another educational leader, to focus on the need for increased knowledge for educational leaders on how to implement educational lessons on appropriate interactions with others within our digital experience. Dr. Ribble has worked within the education field his entire career, at various levels, which has given him unique perspectives that inform his ongoing work with educators. Dr. Ribble has spoken on the topic of digital citizenship to parents, teachers, and students both in the United States and internationally. Dr. Ribble is interested in providing support to educators, parents, and educator preparers on the positive use and inclusive integration of technology for the benefit and advancement of all members of our local and global communities.

MORE INFORMATION
Twitter @digcitizen
http://www.digitalcitizenship.net/
POSTER PRESENTATIONS

BIOLOGY

1. Harshdeep Lamba, Emma Burris, Melany Puente, Codi Mai, Kevin Nickl, Evalyn Nguyen, Maximillan Pham, Detection and Analysis of the Ku70-BHRF1 Protein-Protein Interaction, Dr. Albert Ribes-Zamora

2. Gisel Mena, Mariana Romero, Noah Faridi, Identification of Unknown Soil Bacteria and their Antibiotic Production, Dr. Maia Larios-Sanz

3. Natalia Gonzalez, Tomas Perez, Michelle Najarro, Christine Cao, Characterizing Antibiotic-Resistant Bacteria from Soil, Dr. Maia Larios-Sanz

4. Sophia Huynh, Kevin Nickl, Grace Rizk, Han Vu, Characterizing Potential Antibiotic-producing Bacteria from Soil, Dr. Maia Larios-Sanz

5. Osiel Lopez, Karenn Luu, Britney Ramirez, Christel Vallagomesa, Examining Bacterial Growth in Reusable Water Bottle, Dr. Maia Larios-Sanz

6. Jasmine Diaz, Angelina Le, Max Pham, John Sebok, Exploring different microbes found in the soil of the greater Houston area, Dr. Maia Larios-Sanz

7. Brittany Ramirez, Manuel Cortez, A Study And Identification Of S. marcescens In Soil, And Its Potential Use In Agriculture, Dr. Maia Larios-Sanz

8. Brittany 'Jesse' Ramirez, Laying Hands On Baldwin IV, And Loving The Lepers: An Interdisciplinary Perspective Of The Stigmatized Disease, Dr. Maia Larios-Sanz, Dr. Francesca Guerri

9. Jasmine Loveless, Melissa Alvarez, Audrey Black, Jasmine Cerio, Rocio Garza, Justin Gomez, David Padilla, Hassan Tawfiq, Han Vu, Omonike Olaleye, Characterizing the Cytotoxicity of a Novel Methionine Aminopeptidase Inhibitor on Mammalian Cells, Dr. Rosemarie Rosell

10. Evelyn Carrion, Ellie Salsman, Neiah Richard, Catherine Duong, Jesus Arredondo, Nhi Pham, Michael Cao, The effects of toluene exposure on the fecundity levels and developmental growth of Drosophila melanogaster, Dr. Rosemarie Rosell

11. Trang Hoang, Tatiana Kawula, Andrea Ibarra, Alexandria Mcghee, Higher concentrations of acetaminophen decrease the rate of planarian regeneration, Dr. Rosemarie Rosell

12. Angelina Le, Ava Ngo, Michelle Najarro, William Maldonado, Angelika Jordan, Bushra Ahmed, Alessia Barandiaran, Metagenomics Analysis of Viral Families Carried by Aedes and Culex Mosquitos in the Greater Houston Area, Dr. Rosmarie Rosell, Dr. Maia Larios-Sanz
BUSINESS

1. Chloe Pham, Jaqui Duarte, Valeria Cavanzo-Delgadillo, Jaydee Ramos, LP Optimization of Workforce: a Construction Service Case, Dr. Elias Keedy

INTERNATIONAL STUDIES

1. Gabriela Rodriguez, Femicide: The Case of Mexico, Dr. Stan Hok-Wui Wong
2. Jon-Daved Vasquez, The Resistance of Censorship in North Korea, Dr. Stan Hok-Wui Wong
3. Tamara Del Castillo, Moises Carreon, Marius Bordat, Tito Ramirez, Sara Mabe, Jorge Mexquitic, ESMOAS - Eugene Scassa Model of Organization of American States, Dr. Ulyses Balderas

CHEMISTRY AND BIOCHEMISTRY

1. Grace I. Orendorff, Peter T. Tran, The Combined Effects of pH and Percent Methanol on the HPLC Separation of Arbutin and Phenyl-β-D-glucopyranoside, Dr. John Palasota
2. Trenton Bui, Lesley Ojeda, Green Synthesis of Biologically Active Chalcones using Claisen-Schmidt and Zinc Nanoparticles, Dr. Michelle Steiger
3. Wendi Whitaker, Synthesis of Novel Nickel dithiolate dianiline complexes for hydrogen production, Dr. Olbelina Ulloa
4. Rojan Babu, Ryan Nguyen, Gold nanoparticle-based ultrasensitive Lateral Flow Immunoassay for quantitative analysis of lipoproteins, Dr. Richa Chandra
5. Cam Cardozo, Christopher Lubrano, Lipoprotein profiling via fluorescence anion-exchange high performance liquid chromatography, Dr. Richa Chandra
6. Thanh Nguyen, Ana Marin, Density Gradient Ultracentrifugation Lipoprotein Profiling, Dr. Richa Chandra
ENGLISH
1. Angelique Pinto, *Jane Austen’s Feminist Criticisms of 18th Century in Persuasion and Pride and Prejudice*, Dr. James Barloon
2. Sister Maria Frasatti, *The Endearing Pop-Culture Icon That is Sherlock Holmes*, Dr. James Barloon
3. Ramsey Saab, *An Excerpt from my Short Story, “The Storm”*, Dr. Janet Lowery

HISTORY
1. Jonathan Maiorano, *The Crucifixion and Iconography*, Dr. Francesca Guerri

MATHEMATICS AND COMPUTER SCIENCE
1. Kate Coxic, *Single Player Game Development in Unity*, Dr. Carlos Monroy
2. Sebastian Russo, *System Automation and Data Analytics with Arduino*, Dr. Carlos Monroy
3. Han Vu, *An Interactive 3D Model of Constellations*, Dr. Carlos Monroy
5. Jennifer Rodriguez, *A Client-server and Web-based Ticketing and Reservation System*, Dr. Carlos Monroy
6. Sophia Sanchez, *Predicting Students' SAT/ACT Performance at District and Campus Level in Texas*, Dr. Carlos Monroy
8. Sophia Sanchez, *Predicting Students' SAT/ACT Performance at District and Campus Level in Texas*, Dr. Carlos Monroy
10. Payton Stewart, *Exploratory Analysis of Student Campus Engagement Modalities*, Dr. Jack Follis
11. Diana Hidalgo, Garrick Byrne, *Employee Attrition*, Dr. Jack Follis
PHYSICS AND ENGINEERING

1. Lauren Dysarz, Oscar Zavala, **Standing Waves of Trapezoidal Chladni Plates**, Dr. Amanda Taylor
2. Brian Payton, Jaime Garcia, **Measurements of Electromagnetic Fields from Electrical Devices**, Dr. James Clarage
3. Riley Keck, Fernando Baltazar, Elizabeth Monaghan, Henry Bautista, Farrah Molina, Belen Evans, Ana Gonzalez, Leslyan Reza, Kyle Mamitag, **Piezo Pace**, Dr. Matthew Zelisko
4. Elizabeth Monaghan, Kyle Mamitag, Lauren Dysarz, Norman Barud, **Effects of Print Orientation on the Mechanical Properties of Additively Manufactured ABS Structures**, Dr. Matthew Zelisko
5. Kyle Francis Mamitag, William Mathias, Christopher Alducin, Tyler Killion, Joseph Vu, William Mackenzie, Joshua Middleton, **Mechanical Engineering Senior Capstone Project: Creating and Designing a Hovercraft through Additive Manufacturing**, Dr. Matthew Zelisko
6. Leslyan Reza, Leo Galvan, **Thermal and Photovoltaic Hybrid efficiency**, Dr. Radwa Sultan

PSYCHOLOGY

1. Bita Kootahi, **Honor Culture and Jury Biases**, Dr. Aaron Pomerantz
2. Andreina Palos, **Honor as a Disincentive for Seeking Mental Health Services among Latinx Women**, Dr. Aaron Pomerantz
3. Sydney Salvatierra, **The Relationship between Social Media Usage and Social Skills, Self-Esteem, and Social Anxiety**, Dr. Crystal Tran
4. Nikoleta Giannakou, **Dancers in rigorous Dance Academies and Socioemotional development**, Dr. Crystal Tran
5. Kristen Gutierrez, **Is Academic Performance Related to Type of Note-taking?**, Dr. Jo Anne Meier-Marquis
6. Marjorie Harrison, **Assessing the Relationship Between Personal Characteristics and Academic Success in Pre-Health Students**, Dr. Jo Anne Meier-Marquis, Dr. Crystal Tran, Dr. Lennie Waite
7. Rose Bujard, Beja Blanchard, Ana Ramirez, **Effects of Creative Word Associations on Memorability**, Dr. Victoria Wagner
8. Beja Blanchard, Ana Ramirez, Rose Bujard, **Effect of English Education on Sentence Processing**, Dr. Victoria Wagner
9. Ana Ramirez, Rose Bujard, Beja Blanchard, **Priming creativity with music and literature**, Dr. Victoria Wagner
Friday, April 21, 2023
Malloy Room 013

9:00 AM  Julianna Figueroa Rojas, Possible Determinants of the Afro-Latinos’ Labor force: A Comparative Study of Honduras and Colombia, Dr. Stan Hok-Wui Wong. International Studies.


9:40 AM  Gabriela Rodriguez, Femicide: The Case of Mexico, Dr. Stan Hok-Wui Wong. International Studies.

10:00 AM  Jon-Daved Vasquez, The Resistance of Censorship in North Korea, Dr. Stan Hok-Wui Wong. International Studies.

10:20 AM-10:40 AM - BREAK

10:40 AM  Sofia Sanchez, Cyber Diplomacy and IT Infrastructure: Competition between United States and China among Developing Countries, Dr. Yao-Yuan Yeh. International Studies.

11:00 AM  Maria Alejandra Sterling, Alternative policy for the possession and spread of nuclear weapons, Dr. Yao-Yuan Yeh. International Studies.


11:40 AM  Sai Pasupuleti, Lived Experiences of Refugees in the United States through a Qualitative Research: An Interpretative Phenomenological Analysis (IPA)

12:00 PM  Tamara Lutta, Progression of Women’s Rights in Kenya, Dr. Stan Hok-Wui Wong. International Studies.
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
<th>Instructor</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 AM</td>
<td>Michael Rex</td>
<td>Dostoevsky's Didactic: Truth Through the Experience of Suffering and Love</td>
<td>Dr. Clinton Brand</td>
<td>English</td>
</tr>
<tr>
<td>9:20 AM</td>
<td>Angelique Pinto</td>
<td>Jane Austen’s Feminist Criticisms of 18th Century in Persuasion and Pride and Prejudice</td>
<td>Dr. James Barloon</td>
<td>English</td>
</tr>
<tr>
<td>9:40 AM</td>
<td>Celise Foster</td>
<td>An Excerpt from My Short Story “The Front Desk”</td>
<td>Dr. Janet Lowery</td>
<td>English</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Ramsey Saab</td>
<td>An Excerpt from my Short Story, “The Storm”</td>
<td>Dr. Janet Lowery</td>
<td>English</td>
</tr>
<tr>
<td>10:20 AM-10:40 AM</td>
<td>-</td>
<td><strong>BREAK</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:40 AM</td>
<td>Cody Groff, Nica Dresner, Janssen Gutierrez, et al.</td>
<td>An Excerpt from My Play, &quot;Twenty-Four Hours in Juárez&quot;</td>
<td>Dr. Janet Lowery</td>
<td>English</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Daniel Raines</td>
<td>Stage Irishwomen: A Survey of Irish Women Stereotypes on Stage from the 16th to the 20th Century</td>
<td>Dr. Margot Backus</td>
<td>English</td>
</tr>
<tr>
<td>11:20 AM</td>
<td>Juan Martinez</td>
<td>From Savior and Protector to Judge: Images of Christ in Ravenna</td>
<td>Dr. Francesca Guerri</td>
<td>History</td>
</tr>
<tr>
<td>11:40 AM</td>
<td>Cecilia Presa</td>
<td>Intentional Obscurity: Renaissance Musical Riddles</td>
<td>Dr. Michael Richardson</td>
<td>Music</td>
</tr>
</tbody>
</table>
Friday, April 21, 2023
Malloy Room 016

9:00 AM  Chiara Jones, *Every Morning is a Coffee Morning*, Dr. Jack Follis. *Mathematics and Computer Science*.


10:20 AM-10:40 AM - BREAK


### Friday, April 21, 2023

**Malloy Room 017**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
<th>Faculty Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 AM</td>
<td>Bita Kootahi</td>
<td>Honor Culture and Jury Biases, Psychology.</td>
<td>Dr. Aaron Pomerantz</td>
</tr>
<tr>
<td>9:20 AM</td>
<td>Nikoleta Giannakou</td>
<td>Dancers in rigorous Dance Academies and Socioemotional development,</td>
<td>Dr. Crystal Tran. Psychology.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:40 AM</td>
<td>Marjorie Harrison</td>
<td>Assessing the Relationship Between Personal Characteristics and</td>
<td>Dr. Jo Anne Meier-Marquis, Dr. Crystal Tran, Dr. Lennie Waite. Psychology.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academic Success in Pre-Health Students, Psychology.</td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Rose Bujard, Beja Blanchard, Ana</td>
<td>Effects of Creative Word Associations on Memorability, Psychology.</td>
<td>Dr. Victoria Wagner.</td>
</tr>
<tr>
<td></td>
<td>Ramirez</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20 AM-10:40 AM</td>
<td>BREAK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:40 AM</td>
<td>Payton Stewart, Christel Vallagomesa</td>
<td>Student Campus Engagement Modalities and Impacts of the Covid-19</td>
<td>Dr. Victoria Wagner. Psychology.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pandemic, Psychology.</td>
<td></td>
</tr>
<tr>
<td>11:20 AM</td>
<td>Noor Ahmed</td>
<td>Moods significantly impact finding meaning, Philosophy.</td>
<td>Dr. Mirela Oliva.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Speaker</td>
<td>Title</td>
<td>Discipline</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Guadalupe J Rodriguez</td>
<td>The Molecular Genetics of Retinoblastoma</td>
<td>Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Alexandra Simmons</td>
<td></td>
</tr>
<tr>
<td>9:20 AM</td>
<td>Kati Phan</td>
<td>Duchenne Muscular Dystrophy</td>
<td>Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Alexandra Simmons</td>
<td></td>
</tr>
<tr>
<td>9:40 AM</td>
<td>Kasey Cruz</td>
<td>The Power of Touch: The Impact of Kangaroo Care on Abandoned and Abused Infants</td>
<td>Nursing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ms. Lauren Delumpa, MSN, RN, FNP-C</td>
<td></td>
</tr>
<tr>
<td>10:00 AM-10:20 AM</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20 AM</td>
<td>Roberto Gonzalez</td>
<td>The Molecular Insight of Epoxide Hydrolase B Using the MM-PBSA Method</td>
<td>Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Gregory Smith</td>
<td></td>
</tr>
<tr>
<td>10:40 AM</td>
<td>Brittany 'Jesse' Ramirez</td>
<td>Laying Hands On Baldwin IV, And Loving The Lepers: An Interdisciplinary Perspective Of The Stigmatized Disease</td>
<td>Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Maia Larios-Sanz, Dr. Francesca Guerri</td>
<td></td>
</tr>
</tbody>
</table>
Thursday & Friday, April 20-21, 2023
Virtual Graduate Oral Presentations
School of Education and Human Services

Colleen Annie Mitchell, **Culturally Sustainable Education: A Humanitarian Bridge Between Children of Texas and Kenya**, Dr. Anne Gichuri

Brenna Ruether, **Value and Differences in Structure of Early Education Systems Across Cultures**, Dr. Anne Gichuri

Kidane Yitbarek, **Examining the role of gender inequality on access, participation, and successful higher education outcomes among women and men in Ethiopia**, Dr. Anne Gichuri

Adalgiza Isabel Banana Canjinji, **Mixed-Methods Study on Role of Extreme Poverty Background in Social Skill Development and Academic Performance of Elementary Students in Central Angola**, Dr. Anne Gichuri

Kidane Yitbarek, **Mixed-Methods Study on Role of Gender in Higher Education Access, Participation, and Successful Outcomes in Ethiopia**, Dr. Anne Gichuri

Amber Smith, **Mixed-Methods Study on the Role of Cultural Competence in Elementary School Teacher-Student Positive Instructional Relationships and Academic Success**, Dr. Anne Gichuri

Erika Celeste, **Role of Teacher Attitude on Digital Citizenship Skills and Digital Footprint Awareness in Academic Outcomes of Middle School Students**, Dr. Anne Gichuri

Deirdre Barrett, **Sustainable DEI Leadership: At the intersection of Communication, Engagement and Organizational Culture**, Dr. Doug Franklin
UNIVERSITY OF
ST. THOMAS