

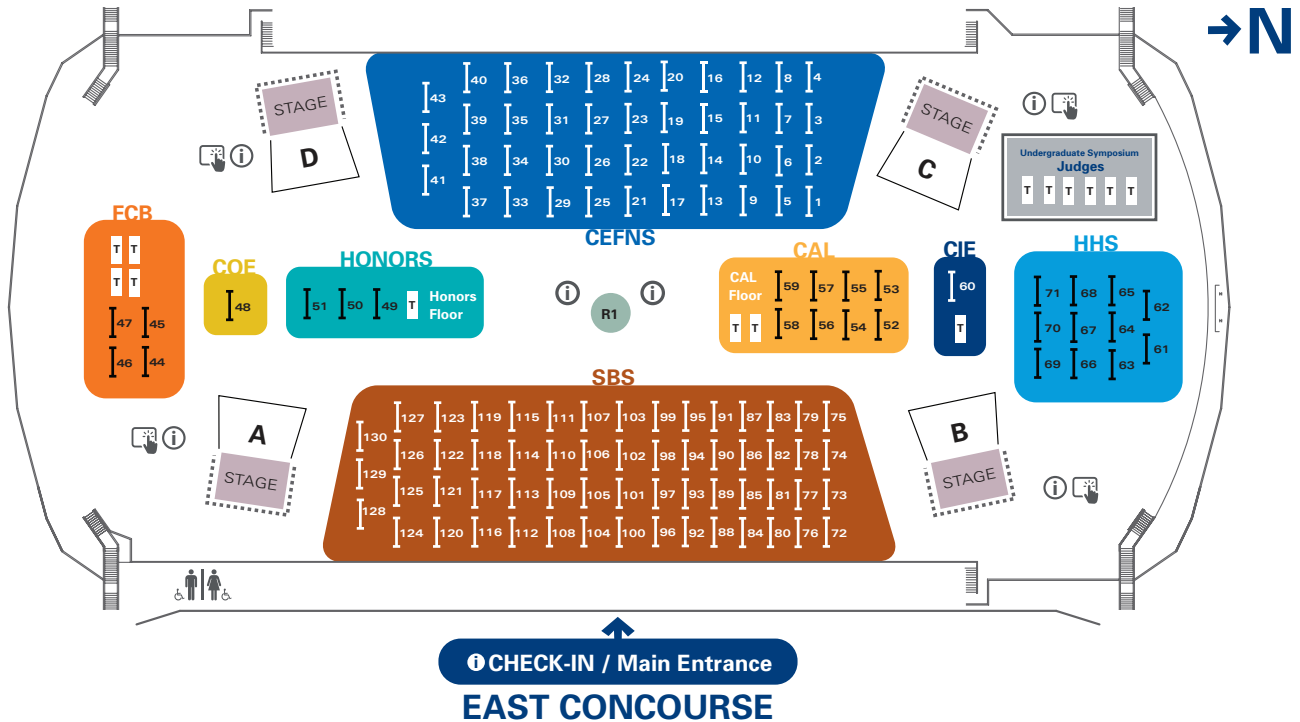
DISCOVER
CREATE
SHARE

Friday, April 28, 2017 | 9 AM – 4 PM

UNDERGRADUATE
SYMPOSIUM

NAU.EDU/SYMPOSIUM

DOME FLOOR MAP



Poster display
Poster display board

C B
D A 1-130

FCB
The W.A. Franke College of Business

COE
College of Education

CAL
College of Arts and Letters

CEFN
College of Engineering, Forestry, and Natural Science

SBS
College of Social and Behavioral Sciences

HONORS
Honors College

CIE
Center for International Education

HHS
College of Health and Human Services

NOT TO SCALE

Presentation stage

Roundtable

Information map

Kiosk

Display table

Message from the President



Dear students, faculty mentors, and guests:

I am privileged to welcome you to NAU's ninth annual Undergraduate Symposium. The students presenting their ideas, creative endeavors, and research today will fill the Skydome and the University Union with the excitement of new discoveries.

The sheer scale of Symposium reflects the NAU community's commitment to research and creative work at the undergraduate level. It also represents our shared dedication to service learning and collaborative projects that connect students with opportunities to make a difference.

Our faculty, who are world-class scholars with a passion for mentorship, create opportunities for exceptional undergraduate learning every day. Their influence, joined with the support of

our donors and sponsors, creates an environment where intellectual discipline and joyful curiosity become lifelong habits for our students.

This devotion to student success pays rich dividends. NAU students are not average—they are exceptional. They are motivated self-starters who make the most of every opportunity we can give them, pursuing knowledge about the world around us and communicating their findings in imaginative ways. In doing so, they craft a brighter future for themselves and for all of us.

My hearty congratulations to our students and everyone who contributed to this event.

Sincerely,

A handwritten signature in black ink that reads "Rita Cheng". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Rita Hartung Cheng

President

Message from the Vice President for Research



Dear students, faculty mentors, and guests:

Today NAU is celebrating its tenth annual university-wide Undergraduate Symposium, which showcases our undergraduate students' efforts in research, scholarship, and artistic endeavors. Through the enthusiastic efforts of faculty and student collaborations, this Symposium has grown over the years to now fill the Walkup Skydome. I am excited that NAU is highlighting the diversity of our students' scholarship and creative outcomes under one roof, and I applaud their academic and creative achievements.

Thank you for joining me and the NAU and Flagstaff communities in congratulating these students and wishing for their future success.

Sincerely,

William Grabe, Ph.D.

Vice President for Research

Table of Contents

Special Events for the Week of April 24 – 30

| | |
|--|---|
| College of Arts and Letters..... | 4 |
| Hooper Poster Presentations & Reception Special Event..... | 5 |

Morning Session

| | |
|--------------------------------------|----|
| Non-poster Listings..... | 6 |
| Poster Listings | 12 |
| Luncheon and Awards Ceremonies | 31 |

Afternoon Session

| | |
|--------------------------------|----|
| Non-poster Listings..... | 32 |
| Poster Listings | 39 |
| Accessibility Information..... | 57 |
| Thank You..... | 59 |

Search for presenters, titles, and abstracts at the event kiosks or online at nau.edu/symposium.

Abbreviations

| | |
|---------------|---|
| CAL | College of Arts and Letters |
| CEFNS | College of Engineering, Forestry, and Natural Sciences |
| COE | College of Education |
| HHS | College of Health and Human Services |
| HONORS | Honors College |
| FCB | The W. A. Franke College of Business |
| CIE | Center for International Education |
| SBS | College of Social and Behavioral Sciences |

College of Arts and Letters: Special Events for the Week of April 28



All College of Arts and Letters (CAL) special events for the Undergraduate Symposium can be located on the NAU campus map at the end of this program.

All events are free unless marked "\$admission." Most tickets can be purchased through NAU Central Ticketing or at the door.

Monday, April 24 – Friday, April 28, 2017 "The Secrets of Bloom" by Janina Burton

- 8 AM – 5 PM
- Riles Gallery (2nd Floor), *Building 15*

Tuesday, April 25, 27–28, 2017 BFA Show

- 10 AM – 5 PM
- Beasley Gallery, Performing and Fine Arts (2nd floor), *Building 37*

Tuesday, April 25, 2017 CAL Film Series: "Taxi Driver"

- 7 PM – 9 PM
- Cline Library, Assembly Hall, *Building 28*

Tuesday, April 25, 2017 NAU Big Band Jazz Concert

- 7:30 PM – 9 PM
- Ardrey Memorial Auditorium, *Building 37*
- \$admission

Thursday, April 27, 2017 Stammitsch (German Table)

- 6 PM – 8 PM
- NiMarco's Pizza (101 S. Beaver Street)
- No food or drink purchase required

Thursday, April 27, 2017 La Tertulia (Spanish Table)

- 6:30 PM – 7 PM
- University Union Food Court (upstairs of Einstein Brothers Bagel), *Building 30*

Thursday, April 27, 2017 Table française (French Table)

- 6:30 PM – 8:30 PM
- Firecreek Coffee Company (22 E. Rt. 66)

Thursday, April 27-29, 2017 "Peter and the Starcatcher" by Rick Elice

- 7:30 PM – 9 PM
- Clifford E. White Theater, *Building 37*
- \$admission

Friday, April 28, 2017 BFA Show Reception

- 5 PM – 7 PM
- Beasley Gallery, Performing and Fine Arts (2nd floor), *Building 37*

Friday, April 28, 2017 NAU Percussion Ensemble

- 7:30 PM – 9 PM
- Ardrey Memorial Auditorium, *Building 37*
- \$admission

Saturday, April 29, 2017 NAU Vocal Jazz Concert

- 7:30 PM – 8:30 PM
- Ardrey Memorial Auditorium, *Building 37*

Sunday, April 30, 2017 NAU Spring Festival of Choirs

- 3 PM – 5 PM
- Ardrey Memorial Auditorium, *Building 37*
- \$admission



Hooper Poster Presentations & Reception: Special Event By Invitation Only

The Office for Undergraduate Research & Creative Activity celebrates this year's Hooper Undergraduate Research Award recipients, with special guest, Dr. Henry O. Hooper, retired NAU associate provost for academic affairs and physics professor emeritus.

Thursday, April 27, 2017: 4:30 PM – 6:30 PM
Native American Cultural Center, Building 14, Gathering Room

- Connor Auge: *Turbulence and Star Formation in Interacting Galaxies* (Mentor: Lisa Chien)
- Kathryn Barkley: *Genetic Characterization of Seagrass in the Saipan Lagoon and its Effect on Community Diversity* (Mentor: Russell Benford)
- Heather Centner: *Investigating Plague in Madagascar's Capital after 17 years of No Reported Cases* (Mentor: David Wagner)
- Kevin Gochenour: *From Primordial Lagoon to Self-Replicating DNA: Analyzing a Proposed Precursor of Modern Nucleobases* (Mentor: Gerrick Lindberg)
- Emily Haworth: *Milkweeds for Monarchs Arizona* (Mentor: Rich Hofstetter)
- Peter Herron: *A Comparison of Fremont Cottonwood (Populus fremontii) Fungal Endophytes in High and Low Stress Areas near Joshua Tree National Park* (Mentor: Catherine Gehring)
- Adam Hoffmann: *Justifying Talc as a Suitable Marker to Search for Biologic Activity* (Mentor: David Elliott)
- Amanda Ketting-Olivier: *Tracing the Disruption of the Little Colorado River by Past Eruptions of the San Francisco Volcanic Field* (Mentor: Nancy Riggs)
- Lindsay Klooster: *Sex Differences in Resistance to Oxidative Stress* (Mentor: Tinna Traustadottir)
- Ryan Lancione: *Understanding Interactions between Switchgrass and N-fixing Bacteria for Sustainable Biofuel Production* (Mentor: Nancy Johnson)
- Christopher McDonell: *Transtensional Faulting, Lake Mead, NV: Mapping of Fault Splays Associated with the Transition from Normal to Strike-Slip Faulting* (Mentor: Ryan Porter)
- Heather Mead: *Investigating Differential Expression Utilized during the Fungal Morphogenesis of the Attenuated Strain of Coccidioides posadasii* (Mentor: Bridget Barker)
- Ramon Mendoza: *Removal of Salt from Sea Water Using Carbon Dioxide* (Mentor: Michael Lee)
- Hayden Niehus: *Philebus 28a-30d and 55d-67d: Commentary on the Grammar and Vocabulary of Plato on God and the Good* (Mentor: George Rudebusch)
- Trevor Pacion: *Uplift, Volcanism, and Mantle Flow of the Colorado Plateau* (Mentor: Ryan Porter)
- Miles Scull: *Biosemiotics: The Account of Meaningful Communication in the Natural World* (Mentor: Jeffrey Downard)
- Isaiah Self: *Innovative Cost-effective Strategy for Monitoring Zoonotic Diseases to Understand Their Prevalence in Nature* (Mentor: Dawn Birdsall)
- Kiley Sheehan: *Chemical Signatures and Implications for the Provenance of the Green River Basin, Wyoming* (Mentor: Michael Smith)
- Cloe Sliva: *Comparison of Silicate Minerals from Unusual and Compositionally Extreme Igneous Rocks* (Mentor: James Wittke)
- Alexandra Tyra & Andrew Haynes: *Let's Keep It Casual: Comparing Friends with Benefits Relationships to Platonic Friendships* (Mentor: Meliksah Demir)
- Daniel Van Gundy: *Post-Eruptive Explosive Hazards of Scoria Cone Volcanoes* (Mentor: Nancy Riggs)
- Brandon VanBibber: *Perceptions of Teacher Autonomy in Charter Schools: A Qualitative Study* (Mentor: Ishmael Munene)
- Patrick White: *The Future of Natural Regenerating Southwestern White Pines* (Mentor: Kristen Waring)
- Christopher Whitney: *Predicting Muscle Force Output of Guinea Fowl during Gait with Perturbations* (Mentor: Kiisa Nishikawa)
- Christi William: *The Physiological Effects of Hydrocarbon and Noise on the Central Auditory Nervous System* (Mentors: O'Neil Guthrie & William Culbertson)
- Brianna Zgurich: *Philebus 31a-55b: Commentary on the Grammar and Vocabulary of Plato on the Forms of Pleasure* (Mentor: George Rudebusch)

MORNING SESSION

Skydome CAL Floor

9 AM - 11 AM – Exhibit

Figures and Their Relationship to Light

CAL, School of Art

Hailee Sattley

Independent Study Live Painting

CAL, School of Art

Hana Lipke

Independent Study Live Painting

CAL, School of Art

Markie Scheidegger

Throwing Pottery on a Potter's Wheel

CAL, School of Art

Connor Slunaker, Sara Larosa, Elijah Pilkington,
Matthew Wheeler, Mathew Carpenter

Summer Study Abroad in Paris and Barcelona

CAL, School of Art

McKaylee Lemon

Skydome COE Table

9 AM - 11 AM – Exhibit

Hands on Education: Getting a Little Messy

COE, Teaching and Learning

Shelby Kowalski, Kaylee Savoia

Skydome Honors Floor

9 AM - 11 AM – Exhibit

Enlightenment Theatre and Social Stratification

HONORS, Honors College

Zachary Mauck, Michelle Zhao

Skydome Roundtable 1 (R1)

9:30 am - 9:55 am – Roundtable Discussion

Sexualization and Gender Roles in Video Games

HONORS, Honors College

Josie Krajnak, Shelby Kershner, Nicole Rice

10 AM - 10:25 AM – Roundtable Discussion

Doll Her Up: Society's Impact on Women

HONORS, Honors College

Marcella Manzo, Dianna Johnson, Marley

Kelso, Arthur Gibson, Annelise Wright

Skydome Stage A

9 am - 9:55 am – Oral Presentation

Running the San Juan River: An Experiential Honors Class

HONORS, Honors College

Shienna Braga, Emma Dahl,
Jacob Miller, Claire Sipos

10 AM - 10:55 AM – Oral Presentation

Social Robots - Societal Betterment?

HONORS, Honors College

Emily Walcott, Megan Foster, Will
Farmer, Allen Clarke, Tristan Davis,
Drake Madden, Jonathan Chin

Skydome Stage B

9 am - 9:17 am – Oral Presentation

Colonialism in the French Museum

CAL, Global Languages and Cultures

Jessica Andrew

9:20 AM - 9:37 AM – Oral Presentation

Une Alliance Russo-Américaine

CAL, Global Languages and Cultures

Taylor Garrett

9:40 AM - 9:57 AM – Oral Presentation

The French Colonization in Algeria, the War for Independence, and Today

CAL, Global Languages and Cultures

Kaitlyn Quinn

10 AM - 10:17 AM – Oral Presentation

Le Végétarisme et le Végétalisme en France

CAL, Global Languages and Cultures

Nina Wilson

10:20 AM - 10:37 AM – Oral Presentation

La Cuisine: The Tenth Art?

CAL, Global Languages and Cultures

Celina Vargas

10:40 AM - 10:57 AM – Oral Presentation

Roms in France

CAL, Global Languages and Cultures

Jacqueline Garrett

Skydome Stage C

Back to the Future: Histories in Dystopias

9 AM - 9:17 AM – Oral Presentation

Prediction of the Future: Time Travel in Media

HONORS, Honors College

Sebastian Kastrul, Lauren Ely

9:20 AM - 9:37 AM – Oral Presentation

Government Coverups and Fake News: an Analysis of Fictional and Nonfictional Dystopias

HONORS, Honors College

Nevea Atherton, Katrina Harkleroad

Skydome Stage C

Real Dystopias: Past and Future

10 AM - 10:17 AM – Oral Presentation

Nuclear War and Interstellar Dystopias of Our Future

HONORS, Honors College

Alexondria Miloz, Aibhlin Ryan, Vanessa Coyne, Lucas Mittelman, Kyle Ghaby

10:20 AM - 10:37 AM – Oral Presentation

Something's Catchy about Epidemics: Fear of Diseases across Time

HONORS, Honors College

Megan Zimmermann, Katelyn Mollak, Todd Takeno, Hannah Wagner

10:40 AM - 10:57 AM – Oral Presentation

Disease & Control in Apocalyptic Societies

HONORS, Honors College

Marissa Rottnek, Savannah Fischer, Micaela Mendoza

Skydome Stage D

9 AM - 9:55 AM – Oral Presentation

Future Scenarios of Human Experience

HONORS, Honors College

Tyler Neufeld, Allyson Mayoral, Samantha Seaman, Kassandra Rogers, Edwin Beraud, Rachel Mahkovec

10 AM - 10:55 AM – Oral Presentation

Future Life on Planet Earth

HONORS, Honors College

Kevin Wasikoski, Athena Costanza, Anthony Mirabito, Kaitlin Farley, Katherine Riffle

University Union – Havasupai AB Room

8:30 AM - 8:55 AM – Oral Presentation

NAU Sumo Bot Competition Team A

CEFNS, Mechanical Engineering

Graham Rose, Hunter Lane, Sean Sussman, Jordan Ziegler

9:50 AM - 10:15 AM – Oral Presentation

Hozhoni Art B

CEFNS, Mechanical Engineering

Yongzhen Li, Jarrah Albathali, Rakan Alhajraf, Aly Alharbi, Abdulrahman Almarri

8:55 AM - 9:20 AM – Oral Presentation

Sumo Bot Team B

CEFNS, Mechanical Engineering

Roman Lopez, Abdulwahhab Alhabashi, Abdullah Alshammari, Sulaiman Alhabshi

10:15 AM - 10:40 AM – Oral Presentation

Hozhoni Garden Device

CEFNS, Mechanical Engineering

Ahmad Alkhezzi, Mike Marner, Saad Alajmi, Mobarak Alqenaei, Khaled Alanezi

9:20 AM - 9:45 AM – Oral Presentation

Design for Disability - Hozhoni Art A

CEFNS, Mechanical Engineering

Ahmad Alotaibi, Madison Douglass, Mohammad Alotaibi, Haitham Almohammedsaleh, Waleed Ahmad

10:40 AM - 11:05 AM – Oral Presentation

Hozhoni Cleaning Crow

CEFNS, Mechanical Engineering

Hasan Aldhefeery, Fahad Alaenezi, Amber Juare, Hussain Alwateeb, Calvin Schnorbus

University Union – Havasupai C Room

8:30 AM - 8:55 AM – Oral Presentation

Unified Sumo Robot D

CEFNS, Mechanical Engineering

Rene Diyarza, David Feetterer, Jose Villegas, Yousef Alghareeb

9:50 AM - 10:15 AM – Oral Presentation

Honeywell Powder Amplifier

CEFNS, Mechanical Engineering

Nicole Mitich, Isaac Romero, Jacob Setzer, Savana Bezdicek, Luke Plumb

8:55 AM - 9:20 AM – Oral Presentation

Orbital ATK Rocket Separation System

CEFNS, Mechanical Engineering

Sage Pasternacki, Amanda Crawford, Christian Johnson, Roberto Gonzalez, Garrett Wright

10:15 AM - 10:40 AM – Oral Presentation

Honeywell Endurance Valve Test

CEFNS, Mechanical Engineering

Bianka Camacho, Dustin Young, Cameron Schlatter, Garrett Murphy, Geordie Macdonald, Lance Gomez

9:20 AM - 9:45 AM – Oral Presentation

Orbital ATK Low Shock Payload Separation System

CEFNS, Mechanical Engineering

Dylan McAdams, Craig Choate, John Buskirk, Neal Murphy, Brett Larzalere

10:40 AM - 11:05 AM – Oral Presentation

Secondary Ion Mass Spectrometry (SIMS)

CEFNS, Mechanical Engineering

Isaiah Cons, Sharna Beahm, Riley Ducey, Ben Hardesty

University Union – Kaibab Room

8:30 AM - 8:55 AM – Oral Presentation

Pilgrim Mine Site Waste Evaluation

CEFNS, Civil Engineering, Construction Management, & Environmental Engineering

Ryne Flanagan, Khaled Alali, Michelle Kuhn, Juan Carlos Acuna

10:15 AM - 10:40 AM – Oral Presentation

Sinclair Wash Stream Restoration Feasibility Study

CEFNS, Civil Engineering, Construction Management, & Environmental Engineering

Mohamed Alhassani, Abdullah Alsalman, Abdulrahman Alsabah, Ahmad Alnemash

8:55 AM - 9:20 AM – Oral Presentation

2017 ASCE/AISC Steel Bridge

CEFNS, Civil Engineering, Construction Management, & Environmental Engineering

Sabrina Ballard, Sean Hopper, Ryan Morofsky, Megan Stevens

10:40 AM - 11:05 AM – Oral Presentation

Verde Valley Water Treatment Design

CEFNS, Civil Engineering, Construction Management, & Environmental Engineering

Camille White, Robert Hoppe, Elizabeth Tague, Kyle Weiss

9:20 AM - 9:45 AM – Oral Presentation

Paddlegonia - 2017 NAU ASCE Concrete Canoe Capstone

CEFNS, Civil Engineering, Construction Management, & Environmental Engineering

Michael Schubert, Cris Aguilar, Stephanie Croker, Katrina Shurley, Matthew Vigil

9:50 AM - 10:15 AM – Oral Presentation

Allan Lake Restoration Project

CEFNS, Civil Engineering, Construction Management, & Environmental Engineering

Brando Gutierrez, Gabriel Green, Skylar Clemons

University Union – Oak Creek Room

8:30 AM - 8:55 AM – Oral Presentation

Robo Games: Sumo and Bartending Robot

CEFNS, Mechanical Engineering

Gunnar Molony, Andrew Farnam,
Christian Dooley, Zheng Liu

8:55 AM - 9:20 AM – Oral Presentation

KineTrax, a Wearable Device for Recording Kinematics in a Community Setting

CEFNS, School of Informatics, Computing,
& Cyber Systems

Christopher Whitney, Anthony Black,
Cherie Parsons, Grant Swenson, Jack Jenkins

9:20 AM - 9:45 AM – Oral Presentation

Go-Baby-Go Universal Controller

CEFNS, Mechanical Engineering

J. Clare Willis, Leia Trice, Luke Lockard,
Taylor Tackett, Colter Hooker, Alex Thomas

9:50 AM - 10:15 AM – Oral Presentation

Steering Wheel Not Included

CEFNS, Mechanical Engineering

Ernes Distajo, Samuel Williams, Abdullah Alajmi,
Abdulrahman Almutairi, Mohammad Aljuaidi

10:15 AM - 10:40 AM – Oral Presentation

GoBabyGo B (Universal Control)

CEFNS, Mechanical Engineering

Mohamed Mohammad Alotaibi, Eid Alotaibi,
Salman Aldouser

10:40 AM - 11:05 AM – Oral Presentation

In Home Gravity Harness

CEFNS, Mechanical Engineering

Hasan Farman, Khaled Alosaimi, Noah Oliver,
Eileen Baker, Armando Garcia

University Union – Sycamore Room

8:30 AM - 8:55 AM – Oral Presentation

Line Following and Sumo Competition Robotics Design

CEFNS, School of Informatics, Computing,
and Cyber Systems

Alyssa Thompson, Omar Marshad,
Tyler Mulholland, Hashem Aldashti

8:55 AM - 9:20 AM – Oral Presentation

Smart White Board Marker for Next Generation Classrooms

CEFNS, School of Informatics, Computing,
and Cyber Systems

Leah Collins, Ali Alawadhi, Khaled Alrabah,
Abdullah Al-Jemaz

9:20 AM - 9:45 AM – Oral Presentation

Virtual Reality Assisted Data Analysis

CEFNS, School of Informatics, Computing,
and Cyber Systems

John Mischevich, Liam Burke

9:50 AM - 10:15 AM – Oral Presentation

JavaScript Interpreter for PIC32 Microcontroller

CEFNS, School of Informatics, Computing,
and Cyber Systems

Trent Boice, Jonathan Miller, Hope Byjoe

10:15 AM - 10:40 AM – Oral Presentation

Improved Efficiency Using Digital Control for an Electrical Grid Converter

CEFNS, School of Informatics, Computing,
and Cyber Systems

Christopher Leffler, Ryan Lee,
Christian Endsley, Omar Almuharrami,
Kaylub Hemphill, Anthony Sagg

10:40 AM - 11:05 AM – Oral Presentation

Smart Solar Generator

CEFNS, School of Informatics, Computing,
and Cyber Systems

Jesse Saylor, Andrew Winegarner,
Frank Pocino, Michael Moser

University Union – Walnut AB Room

8:30 AM - 8:55 AM – Oral Presentation

Automated Website Testing

CEFNS, School of Informatics, Computing,
and Cyber Systems

Max Wason, John Sadie, Peter Haschke,
Jason Le

8:55 AM - 9:20 AM – Oral Presentation

Remote Telescope Activity Monitor

CEFNS, School of Informatics, Computing,
and Cyber Systems

Gage Cottrell, Alexander Sears,
Chris French, Justin Kincaid

9:20 AM - 9:45 AM – Oral Presentation

High Performance Computing Cluster Visualization Tool

CEFNS, School of Informatics, Computing,
and Cyber Systems

Michael Gilbert, Brandon Allen, Don Speer,
Tanner Stevens, Andrew Stebenne

9:50 AM - 10:15 AM – Oral Presentation

NAZ Animal Welfare Task Force

Educational Pet Adoption Tool
CEFNS, School of Informatics, Computing,
and Cyber Systems

Marjorie Hahn, Frankie Berry, Steven Gruenewald,
Riley Shelton, Matthew Siewierski

10:15 AM - 10:40 AM – Oral Presentation

The Virtual Office Door

CEFNS, School of Informatics, Computing,
and Cyber Systems

Tyler Tollefson, Nicolas Melillo, Mitchell Hewitt,
James Hauser, David Snow

10:40 AM - 11:05 AM – Oral Presentation

FlagFriends Group Matching Application

CEFNS, School of Informatics, Computing,
and Cyber Systems

Brandon Garling, Matt Nielsen, Clarissa Calderon,
Mohammad Alsobhi, Xiangzhi Cao

Skydome Floor: Posters (9 AM – 11 AM)

CAL – English

Real Life Rhetorical Situations

Elizabeth Anderson, Mary Holmes

Display board [52A]

Interdisciplinary Research of Discourse

Javin Singer, Nicole Escamilla Guardiola,
Sarah Begovac, Sabrina Leal

Display board [52C]

Films within Films: Cinematic Reflexivity Over Time

Liam Clauss, Rebecca Gordon

Display board [53A]

CAL – Global Languages and Cultures

Le Biculturalisme au Canada: Une Analyse Comparative du Québec et l'Alberta

Gavin Furrey

Display board [53C]

CAL – History

Hiroshima: Art and Reconciliation

Jordan LaMont

Display board [54A]

CAL – Philosophy

BioSemiotics: Meaning, Purpose and Communication in the Natural World

Miles Scull

Display board [53C]

CAL – School of Art

The Rodriguez's Vacation Home

Kael Willey

Display board [54D]

The Gatsby Experience

Melissa Amstutz

Display board [55C]

The Future of Gastrointestinal Health Care

April Beard

Display board [56A]

Improving the U.S. Infant Mortality Rate with Natural Labor

Taylor Bowyer

Display board [56C]

Modern Burlesque

Nicolle Christman

Display board [57A]

The Orpheum: Small Venue Expansion Project

Cullen Coker

Display board [57C]

Sustainable Elementary School

Edin Garcia

Display board [58A]

A Sustainable Community Model

Michelle Laney

Display board [58C]

Living Community Pet Center

Aubrey Mollett

Display board [59A]

Historic Hostel and New Restaurant

Hailey Peterson

Display board [59C]

Hostel Remodel

Kennedy Kile

Display board [CAL-ID Easel]

CAL – Theatre

Show-ception — Building a Show within a Show Using Open Sound Control

Tristen Kocher, Joshua Prescott-Smith,
Rebekah Ryan

Display board [55B]

CEFNS – Biological Sciences

Identifying Potential Vaccine Targets for Protection Against Burkholderia pseudomallei Infection Using Proteome Exploration

Mimi Mbegbu, Maxx Harvey

Display board [31A]

Plant Pollination Strategies Reveal Ecological Changes along an Elevation Gradient

Bradley Thrower, Alexander Henrie

Display board [31C]

Developing a Reliable Clinical Test for a Burkholderia pseudomallei Infection: Evaluation of Bacterial Antigens Using Serum from Patient Blood Samples

Courtney Seavey, Erik Settles,
Austin Shannon, Mitch Keener,
Kyle Headley, Jinhee Yi, Mark Mayo

Display board [32A]

Sex Differences in Resistance to Oxidative Stress

Lindsay Klooster, Tinna Traustadottir,
Aaron Done, Savannah Berry,
Ethan Ostrom

Display board [32C]

CEFNS – Biological Sciences

Easing Veteran Reintegration

One Paw at a Time

Gabrielle Orsini

Display board [33A]

A Common Pesticide, Butachlor Does Not Affect the Percentage of Global DNA Methylation in *R. marina* and *F. vittigera*

Calsey Richardson, Molly Shuman-Goodier

Display board [33C]

It's Just a Flesh Wound! Scaling of Puncture Force in Flatfishes

Joseph Perez, Michael Minicozzi, Alice Gibb, John Kimball, Ashley C

Display board [34A]

The Effect of Acute Alcohol Exposure on RAW 264.7 Macrophages Infected with *Burkholderia thailandensis*

Autumn Dove, Fernando Monroy

Display board [34C]

Discovery of Antigenic Biomarkers in *Burkholderia pseudomallei* for Rapid Diagnosis of Melioidosis

Maxx Harvey, Jinhee Yi, Mimi Mbegbu, Rachel Meyer, Lauren Pristo, Karen Hernandez, Erik Settles

Display board [35A]

Site-Specific Evaluation of Body Shape Response to Contamination in a Model Fish Species, *Gambusia affinis*

Chloe Greenhalgh-Adam, Rex Bergamini, Catherine Propper

Display board [35C]

Screening Ticks Intercepted on Mexican Cattle at the Texas Border for Cattle Fever Pathogens (*Anaplasma marginale* and *Babesia spp.*) and DNA Mutations

Rebekah E. Turner, Nathan E. Stone, H. Joel Hutcheson, Pia U. Olafson, Greta Buckmeier, Donald B. Thomas, Glen A. Scoles

Display board [36A]

Tracking Plague through Time and Space: Investigating Temporal and Spatial Genetic Patterns of *Yersinia pestis* in Coconino County

Nicole Bratsch, Heather Centner, Carina M. Hall, Paul Keim, David M. Wagner

Display board [36C]

Uranium's Effect on Behavior in Larval *Danio rerio*

John Grunwald

Display board [37A]

Patterns of Host Selection in the Parasitoid, *Nasonia vitripennis*

Hannah Combs, Yanca Hermosillo, Daniel Kollath, Laura Blair, Zane Holditch, Stephen Shuster

Display board [37C]

Predicting in Vivo Muscle Force in Running Guinea Fowl Using a Muscle Model Based on the Winding Filament Hypothesis

Christopher Whitney, Kiisa Nishikawa, Monica Daley

Display board [38A]

Variation in Advertisement Calls across the Estrous Cycle in Grasshopper Mice

Haley Szczyblewski, Mandi Johnson

Display board [38C]

Nuclear Magnetic Resonance of Choline and Geranate Incorporated into an Electro Spun Gelatin Scaffold

Maxwell Zimmerman, Tatum Bardsley, Andrew Koppisch, Robert Kellar

Display board [39A]

Evaluating the Effect of Alcohol on *Burkholderia spp.* Biofilm Formation

Destiny Valenzuela, Victor Jimenez, Aubrey Funke, Fernando Monroy

Display board [39C]

Accelerated Wound Healing and Elastin Fiber Production in Scaffold Treated Wounds

Aurora Babcock-Cooke, Robert Diller

Display board [40A]

In Vitro Evaluation of Arsenic Contaminated Skin Cells

Oscar Lujan, Bronson Pinto, Stephan Ramos, Catherine Propper, Robert Kellar

Display board [40C]

Does Presence of Mustards Increase the Chances of Herbivory on Monkeyflower? A Natural Test of Associational Susceptibility.

Samantha Marcoly, Michael Rotter, Liza Holeski

Display board [41A]

P.I.C.E.S. (Pilot Intervention of Culturally-responsive Exercise System)

Christopher Frank, Brian Bettner, Ashley Averett, Annalee Boyle, Sara Jarvis, Melissa Birkett

Display board [41C]

CEFNS – Chemistry and Biochemistry

Prediction of the Eutectic Phase Behaviour of Methane and Ethane

Shyanne Dustrud, Gerrick Lindberg, Will Grundy, Jennifer Hanley

Display board [25A]

Fibronectin Fibrillogenesis in Cancer Cell Hypoxia

Annatasha Stephen, Carina Magdaleno, Maxwell Zimmerman

Display board [25C]

Arsenic, Cadmium, Lead, and Manganese Quantification of Corn Kernels Harvested after the Gold King Mine Spill

Darren Miller, Adam Settimo

Display board [29A]

Plant-Pollinator Interactions: The Fight between Native and Non-Native Plant Species

Brandon Clark

Display board [42A]

Endophytic Fungi in *Populus fremontii* near Joshua Tree National Park

Peter Herron, Julia Hull, Catherine Gehring

Display board [42C]

Investigating Differential Expression Utilized during the Fungal Morphogenesis of the Attenuated Strain of *Coccidioides posadasii*

Heather Mead

Display board [43A]

Distribution of Parasitizing Trombiculid Larval Mites among Grand Canyon Lizard Species

Tanner Carothers, Kathleen Beresic-Perrins, Stephen Shuster

Display board [43C]

Analysis of Perovskite and Its Degradation Mechanisms in Ambient Conditions

Patricia De Peralta, Micheal Lee, Connor Kralik, Kayleen Esparza, Keenan McNamara, Karen Winter

Display board [29C]

Solid Polymer Electrolyte Developed for Multifunctional Material Systems

William Andrews

Display board [30A]

Determination of Arsenic, Lead, and Manganese in Sediments Collected after the Gold King Mine Spill

Andrew DeVerse, Adam Settimo, Jani Ingram

Display board [30C]

CEFNS – Civil Engineering, Construction Management, and Environmental Engineering

Solar Disinfection of Domestic Greywater for Landscape and Edible Plant Use

Anna Gorman, Alarick Reiboldt

Display board [10A]

The Effects of Ponderosa Pine Tree Deforestation Concerning Snow Water Resources on the Ground

Kasie Carleton, Christian Soutus, Cydney Matthews, Erin Pflueger, Melissa Jacquez

Display board [10C]

Big Beam and Robin: PCI Big Beam

Qusai Alghalbi, Kacy Aoki, Mohammed Alradhi, Rick Wilson

Display board [11A]

Adobe Brick Suitability in Coconino County

Nick Westphal, Eva Rowe

Display board [11C]

CEFNS – Mathematics and Statistics

Semilinear Elliptic Boundary Value Problems on a Variable Domain

Jeffrey Covington

Display board [26A]

Expanded Star Reduction Graphs for Coxeter Groups of Types A and B

Brittany Carr, Nur Emalina Bidari

Display board [26C]

Cubic Residue Matrices

Ryan Wood, Pauline Gonzalez

Display board [27A]

CEFNS – Mechanical Engineering

Manufacturing Marvel

Andrew Atkinson, Nicholas Dvorsky, Christopher Atkinson, Zaid Alzaid, Hamad Alshamlan

Display board [12C]

Innovative Modeling of Diseased Vessels for Use in Endovascular Device Development

Connor Gonzalez, William Bartholme, Kayla Goodrich, Anne Marie Holter, William Merritt, Amy Swartz

Display board [16A]

Mobile In-Vitro Vessel Cast System

Bradley Backus, Kyle Davis, David Despars, Chris Prodan

Display board [16B]

The Wonder Factory

Tim Walters, Aaron Ake, Ahmad Alowais, Mohammed Aldossari, Mohammed Alqahtani

Display board [16C]

Collegiate Wind Competition

Melissa Hoover, Joshua Danny, Chase Donnell, Jesus Bravo, Brent McFarlane, Rafeal Vera

Display board [16D]

Ultra-Light Solar Aircraft

Joshua Nobis, Gabriel Vega, Ivan Morales, Aria McCardell, Jesse Rheingold, Sydney Goodman

Display board [1A]

Design of a Simple Test Fixture for a Powered Foot-Ankle Prosthesis

Isaac Romero

Display board [1C]

Thoracic Aorta Aneurysm Model

Dominic Smith, Tanner Moll, Max Denhart, Michael Courville, William Reilly, Colin Strang, Darryl Hoffman

Display board [20B]

Modified Bicycle Motion

Kathryn Lucke, Alex Lawson, Matthew Palmer, Fahad Alajmi, Basem Alghamdi

Display board [2A]

The Wonder Factory

Yongseok Park, Juan Shields, Ali Alkhaiyat, David Rankin

Display board [2C]

Hozhoni Button

Faleh Alajmi, Abdullah Alajmi, Majid Alenezi, Mutlaq Alajmi

Display board [3A]

Aortic Aneurysm Vessel Model

Lance Clothey, Trevor Crowe, Matthew Denike, Brandon Starks, Eric Adol

Display board [4B]

Go-Baby-Go Team C

Eric Trieu, Alwaleed Alhamra, Asrar Alkhabbaz, Fawaz Almutairi, Sultan Almutairi

Display board [5A]

SRP Fluids Analysis

Thomas Hill, Clayton Surratt, Brianna Moore, Galen Geislinger, Abdullateef Alhumaidan, Abdulaziz Alanzi

Display board [5C]

CNC Table for Routing Team A

Jessica Collins, Jason Troxler, Micael Ljungberg, Bader Alfadhli, Uday Kadhum, Sara Hamadah

Display board [8C]

Go Baby Go Team D

Shahah Eshkanani, Yousef Alraqem, Yousef Alenezi, Saleh Almasari, Hussen Alajmy

Display board [9A]

Human Powered Vehicle

Brooke Vails, Sergio Fajardo Jr., Zachary Goettl, Harley Gardner, Derrick Lemons, Stewart Lockhart

Display board [9C]

SAE Micro Aero Design Competition

Josh Gomez, Michael Medulla, John Cowan, Mohammad Qasem, Yaqoub Almounes

Display board [9D]

CEFNS – Physics and Astronomy

Presence of Water on Near Earth Objects

Raven Larson

Display board [24A]

Uranium, Radon, and Radiation Outreach

Athena Talk

Display board [24C]

Modeling the Non-Euclidean Geometry of Flat Spacetime Using Projective Euclidean Surfaces

Étude O'Neel-Judy

Display board [27C]

Coevolution of Supermassive Black Holes and Their Host Galaxies

Josephine Schindler

Display board [27D]

CEFNS – Physics and Astronomy

Reclamation of Human Urine as a Fertilizer in an Off-Earth Colony

Josue Juarez

Display board [28B]

Deformation Analysis of Advanced Materials Using Digital Holography

Olivia Thomas

Display board [28D]

CEFNS – School of Earth Sciences and Environmental Sustainability

City of Flagstaff, AZ:

Water Conservation Committee

Samuel Woodrich, Renata Vazquez, Dylan Ray, James Yurkovich

Display board [17A]

Monitoring the Wickiup Creek: Understanding the Driving Processes of Erosion at the Wickiup Creek Watershed

Leah Manak, Sienna Chapman, Nathaniel Bransky, Jaime Cauthen, Peter Herron

Display board [17C]

Invasive Species Management on the Colorado Plateau

Christopher Norris, Anabeth Avila Arenas, Elizabeth Bradley, Brittany Oxford

Display board [18A]

Long Term Effects of Uranium Mining in Grand Canyon

Brooke Dalton, Trenton Anderson, Cody Folk, Kevin Merritt

Display board [18C]

Determining the Disruption of the Little Colorado River by Past Eruptions of the San Francisco Volcanic Field

Amanda Ketting-Olivier

Display board [19A]

Eruption Dynamics of Havre Volcano and Correlation of Particle Fragmentation with MFCI Process

Velveth Perez

Display board [19C]

Comparison of Silicate Minerals from Unusual and Compositionally Extreme Igneous Rocks

Clotilde Sliva

Display board [20A]

Central Arizona Project-Solar Installation Proposal: Securing a Sustainable Future through 'Capping the CAP'

Grayson Guenther, Dylan Morrison, Dylan Simone, Erica Peebles, Kevin Pugh

Display board [21A]

Green Fund Projects

Lydia Smart

Display board [21C]

Seismic Anisotropy of the Colorado Plateau

Trevor Pacion

Display board [22A]

Ring Stacking and Hydrogen Bonds are Correlated with Aggregation and Structure of a Proposed Precursor of Modern Nucleotides.

Kevin Gochenour

Display board [22C]

AZ Milkweeds for Monarchs

Emily Haworth

Display board [23A]

Geologic Mapping and Stratigraphic Analyses of Northwestern Aeolis Mons, Gale Crater, Mars

Christopher McDonnell

Display board [23C]

Hancrafted Health: Flagstaff EcoRanch and Bare Bones Farm CSA

Jerika Marshall, Cory Tripp, Sean Doctor, Austin Tipps, Kolby Ah Sau, Gabryl Sam

Display board [CEFNS-ENV Easel]

CEFNS – School of Forestry

Maximizing Cyanobacteria Filament Depth for Biocrusts Cultivation

Michael Morton, Kristina Young, Matthew Bowker

Display board [14A]

What's for Lunch? A Novel Metabarcoding Approach Reveals Diet of an Endangered Herbivore

Austin Dikeman, Daniel Sanchez, Faith Walker, Carol Chambers

Display board [14C]

CEFNS – School of Informatics, Computing, and Cyber Systems

WebApp for Teaching Authentic Spanish Language

Keith Saunders, Ashley Green, Andreas Salazar, Joshua Sommers, Nigel Sultan

Display board [12A]

Reproducible Human Aneurysm Model

Clint Morris, Keegan Labanz, Jeremy Anderson, Khaled Alotaibi

Display board [4C]

PeerEvolve: Peer Evaluation Software

Dylan La Frenz, Lucas Rayburn, Kaina Crow, Zac Patten

Display board [13C]

WibTeX: Reference Management System

Charles Duso, Jarid Bredemeier, Hayden Aupperle

Display board [6A]

Orchard, an Automated Branching and State Management Tool for Big Data Analysis Pipelines

Christian Buskirk, Chris Blazer, Curtis Rose, Peter Bellagh, Jordan Kreps

Display board [15C]

Improved Access to Kaguya Hyperspectral Image Data

Kelvin Rodriguez, Zowie Haugaard, Daniel Ohn, Christopher Philabaum, Makayla Shepherd

Display board [6C]

Data Visualization on Enterprise Storage

Armondo Thomas, Joshua Melton, Alejandro Varela, Jack Barrett, David Miller

Display board [7A]

COE – Educational Psychology

The Relationship between Student Attributions for Academic Probation and Academic Success

Nicole Morrison, Rebecca Campbell, Paul Deasy, Sarah Abercrombie

Display board [48B]

HHS – Communication Sciences and Disorders

The Demographic Information of Patients Diagnosed with Concussions/Mild Traumatic Brain Injuries in Flagstaff, Arizona

Elora Palmer, Rebecca Faymon

Display board [61B]

The Struggle: Effects of Second Language Acquisition on Young Students

Kayli Chambers

Display board [61C]

Childhood Literacy and Communication

Caitlin Fagan

Display board [61D]

HHS – Dental Hygiene

Reduction of Plaque and Gingivitis: Sonicare vs. Oral B Braun

Andrea Rosas

Display board [62A]

Caries Treatment with Silver Diamine Fluoride

Nikol Nez

Display board [62B]

Teeth Whitening Efficacy of Over-the-Counter 6% Hydrogen Peroxide Whitestrips Compared to At-Home 10% Carbamide Peroxide Gel Trays

Savannah Hill

Display board [62C]

38% Silver Diamine Fluoride Effect on Caries Arrestment

Jessy Kartchner

Display board [62D]

Gluma® Compared to a Placebo in the Treatment of Dentin Hypersensitivity

Cassandra Ping

Display board [63A]

Water Flossers Compared to Traditional Floss in Effectiveness of Plaque Removal

Bethany Haines, Bethany Haines

Display board [63B]

Oil Pulling and Oral Health

Madeline Ransom

Display board [63C]

Treatment of Dentin Hypersensitivity with Potassium Nitrate vs. Arginine

Jennifer Sullivan

Display board [63D]

Effects of Xylitol Gum on the Transmission of Decay-Causing Bacteria from Parent to Child

Olivia Beckley

Display board [64A]

Effectiveness of the Sonicare AirFloss for Interdental Plaque Removal

Cecelia Binford

Display board [64B]

Oral Health Effects of Hookah Smoking

Jimmy Cardenas

Display board [64C]

Tobacco Cessation: Are Electronic Cigarettes or Nicotine Patches More Effective?

Colby Condon

Display board [64D]

Probiotics for the Prevention of Dental Caries

Rochelle Graves

Display board [65A]

Health Effects of Electronic Cigarettes

Bailee Kerulis

Display board [65B]

Probe Depths When Comparing Arestin to Periochip

Casey Kortsens

Display board [65C]

Polyol Chewing Gum and Dental Caries

Mireyda Mendoza-Olivas

Display board [65D]

Polisher Effectiveness: Rubber Cup Polishers vs. Air Polishers

Alison Nettles

Display board [66A]

Tooth Decay in Communities with and without Fluoridated Water

Belema Ogbanga

Display board [66B]

The Relationship between Periodontal Disease and Alzheimer's Disease

Annie Richardson

Display board [66C]

HHS – Health Sciences

The Physiological Effects of Hydrocarbon and Noise on the Central Auditory Nervous System

Christi Williams

Display board [68A]

Clinical Effects of Two Mouth Rinses Used in Conjunction with Tooth Brushing

Elijane Williams

Display board [68B]

Plaque Reduction with Manual vs. Powered Toothbrushes

Jordan Maynard

Display board [68C]

Professionalism through Food Handling

Madison Anglin, Kristen Barrett

Display board [68D]

The Effect of Two Mouth Rinses on Plaque

Sarah Russell

Display board [66D]

Effects of Manual and Power Toothbrushes on Gingival Recession

Jamie Shrader

Display board [67A]

Is Xylitol a Cavity Cure?

Yana Valitskaya

Display board [67B]

Silver Amalgam versus Resin Composite Dental Fillings

Amy Wuthrich, Leah Janeski

Display board [67C]

Effect of Adjunctive Host Modulation on Periodontal Treatment

Devin Young

Display board [67D]

Prenatal Care Awareness

Darien Fuller, Rene Oropeza, Katalina Olea, Shardonae Nua, Leonariya Charley

Display board [69A]

Promoting Productive Life Skills in Summit High School Students through Nutrition and Soft-Skills Development

Nathan Stephens-Jackson, Emma McVeigh, Latifah Thompson, Mae Dallal, Jenny Gormley

Display board [69B]

Public Health in Exam Rooms

Jonica Wildes, Rachel Linker, Kimberly Gwynn, Demerie Raymond, Hannah Jones

Display board [69C]

Lifestyles Intervention for High Risk Middle School Students

Joshua Gates, Amy Gelatt, Kayla Hayes, Madeline Lyon

Display board [69D]

HHS – Health Sciences

Yoga for the Future

Helene McOwen, Natalie Jaimes,
Hannah Nance

Display board [70A]

Evaluation of a Diabetes Support Group at North Country HealthCare

Ruby Meraz, Corina Ojeda, Damaris Molina,
Natalie Sullivan

Display board [70B]

Beating Diabetes

Katherine Castro, Kathryn Fischer,
Jaimelyn Paule

Display board [70C]

Hunger-Free Alliance Summer Program

Haily Manser, Bailey Lee, Jamie McDonald,
Flor Rizo, Brianna Williams

Display board [71D]

Best Practice for Recovery Following Concussions: Questions Still Unanswered

Tori Bacher, Jessica Chavez

Display board [70D]

Using Echocardiography to Contrast the Difference in Stroke Volume between a Type II Diabetic and Non-Diabetic Heart during Exercise

Lyle Becenti, Chris Baldi, Genevieve Wilson

Display board [61A]

HHS – School of Nursing

Intensified Caregiver Workshop for Northern Arizona

Meridith Mattingly

Display board [71A]

Assertive Community Treatment for the Seriously Mentally Ill Patient

Thomas Bianciotto

Display board [71B]

Decreasing Pressure Ulcers with Improved Skin Assessments and Repositioning

Grace Kretschmar, Joseph Norton, Claire Spoelman

Display board [71C]

HONORS – Honors College

Eating on the Wild Side

Brittney Esser, Macy Jaeger,
Paige Lighthipe, Emma Moreno,
Heather Lobrigo

Display board [49A]

The Negative Implications of Human Manipulation on Agriculture: GMO's and Pesticides

Madison Martz, Aspen Jack,
Daryn Erickson, Elizabeth Brambert,
Amber McGuire

Display board [49C]

The Cultural Significance of Peyote in Native American Tribes

Keizer Tumbagahan, Maddie Duarte,
Jack Calderone, Ricardo Cordova

Display board [50A]

Blending Gender Lines: The New Makeup Trend

Gabriella Wojdyla, Bailey Erwin,
Miquela Goodson

Display board [50C]

Home Cooking vs. The Screen

Britney Bibeault, Bethanie Stott,
Bethany Johnston

Display board [51A]

Controversial Plants

Caroline Callaway, Richard Hamilton,
Kyle Ghaby

Display board [51C]

An Interdisciplinary Approach to Scientific Translation and Communication or Why We Need Popular Science Journalists

Taylor Hartman

Display board [HONORS Ease]

SBS – Anthropology

The Stigma of Femininity in Black Males

Jeffery Mercado

Display board [104C]

Tales of the Closet: the Importance of Stories for LGBTQA+ Community Members

Benjamin Miller

Display board [105A]

Superstition in Theater

Jennifer Bath

Display board [105C]

Museum of Northern Arizona & Community Collaboration: Exhibiting the Past, for the Future

Brea Cappello

Display board [106A]

Language Segregation in Catholic Communities

Anthony D'Avolio

Display board [106C]

Ethnic Studies Impact on College Students

Amanda Ekdahl

Display board [107A]

Graphic Design as a Medium for Expressing Cultural Identity

Nicole Escamilla Guardiola

Display board [107C]

The Role of Ritual in the Jewish Community

America Freeman

Display board [108A]

Impacts of the Immigrant Travel on American Muslims Experiences

Nathan Grubb

Display board [108C]

Alcoholics Anonymous Group Study

Carter Kunkle

Display board [109A]

The Sociological Factors Surrounding the Voting Habits of College Students

Kayleigh Payne

Display board [109C]

The Subculture of Travelers in the Southwest

Ramsay Shannon

Display board [110A]

Developing Community Marketing and Distribution Strategies to Aid New and Established Farmers in Flagstaff

Christopher Singer

Display board [110C]

Funerary Practices of Arizona

Erin Turner

Display board [111A]

A Study of Language Use and Ritual in Religious Community

Clare Wallum

Display board [111C]

SBS – Anthropology

The Language of the Internet

Sarah Stafford

Display board [112A]

Native American Art and the Cultural Expression

Joseph Cromwell

Display board [112C]

Casino Culture: A Study on the Life of a Gambler

Mason Roberts

Display board [SBS-ANT Easel]

Taphonomic Tomb Raider: Understanding the Diagenesis of an Elite Tomb at the Ancient Maya Site of Xunantunich, Belize

Gavin Wisner, Katie Tappan, Dylan Wilson

Display board [116B]

How Religion Shapes a Community

Monica Becker

Display board [116C]

Weaning Effects on the Diet of the Children at the Prehistoric Site of Cerro Jazmin, Oaxaca, Mexico

Bárbara Arriaga Espinoza, Patricia Aguiña, Alexis Volta, Omar Gómez, Taylor Lambrigger

Display board [116D]

SBS – Applied Indigenous Studies

Researching Native American Children from a Strengths Perspective

Karen Getto

Display board [127A]

SBS – Communication

Disability Studies in College Courses

Jessica Sproull, Tyla Friemoth

Display board [127D]

Communication Apprehension in College Majors

Ranessa Hurrell, Domenic Napue, Madison Webster

Display board [129D]

What Makes People Laugh?

Briar Tately, John O'Shea

Display board [130A]

A Critical Analysis of the Use of Humor in The Daily Show

Holly Dvergsten, Tyler Mirkovich, Cynthia Yap, Blayne Hoe

Display board [130B]

Memeitics

Dallas Diaz, Molly Weikart, Helen Idowu, Candice Cleland

Display board [130C]

The Causes and Effects of Negative Social Media Comments

Conner Cassens, Eleanor Kerbleski, Ashley Olver, Rose Nolan

Display board [130D]

SBS – Criminology and Criminal Justice

Opinions of the Death Penalty

Taylor Axlund, Marcelena Olea, Zachery Strange, Cole Benson

Display board [117C]

Perceptions of Consent

Tasauna Brown, Lauren Scobee, Karolina Pieja, Stephanie Sapp

Display board [118A]

Student Stalking Experiences

Jacquelyn Cook, Ethan Novak, Scott Schrank, Camryn Dryden, Tatiana Kurach

Display board [118C]

Effects of Religiosity on Police Perceptions

Sara Griffin, Jacob Hernandez, Jason Hunsaker, Cassandra Coyle

Display board [119A]

Attitudes towards Guns Shaped by Adolescent Experiences

Zachary Haglin, Breanna Krasovich, Shayla Servis, Thomas Chance

Display board [119C]

Parenting Methods Impact on Police Perception

Dominic Dominguez, Caleb Sanchez, Ravin Caliva, Anthony Noonan, Emerick Martinez

Display board [120A]

Opinions of Capital Punishment on a College Campus

Brianna Averett, William Wetherell, Glynnis Everett, Nick Dilettoso

Display board [120C]

Gun Perception and Media

Nicholas Chu, Fernando Minjarez, Valentine Doria, Vanessa Angel

Display board [121A]

Here for the Party

Madelin DeVar, Alyena Colbrook, Natalie Snyder, Allison Beauchamp, Alexis Webber

Display board [121C]

Social Media Use in Connection with Alcohol and Marijuana Use

Steven Flis, Megan White, Alex Erickson, Donald Mastriona

Display board [122A]

Effects of Binge Drinking among College Students and Greek Life

Jacob Mentzer, Brian Guy, Noel Noriega, Nick Tanquary

Display board [122C]

The Relationship of Financial Strain and Social Attachment to Dating Violence.

Madeline Prunty, Leigh Leininger, Marina McGarry, Lola Shembab, Rylie Grizzle

Display board [123A]

Parental and Child Drug Use

Fritzen Ramsey, John Crews, Marina Emerson, Tyler Elam

Display board [123C]

Changing the World through Education

Kaitlyn Welk-Robbins, Austin Cibik, Rachel Bracken, Liana Paquin

Display board [123D]

High Functioning Anxiety on College Campuses

Maridyan Roberson-Rocha, Jacquiece Bolden, Robert Stewart, Alexis Covey

Display board [124A]

Discrimination on a College Campus

Victoria Weissinger, Dieon Parker, Nicholas Nasca, Grayson Liggett

Display board [124C]

SBS – Criminology and Criminal Justice

Public Perceptions of the U.S. Military

Eric Williams, Jacob Lopez,
Ruth Dominguez, Eric Williams

Display board [125A]

Music and Aggression

Alora Zellhuber, Shomari Bitsuie, Erika Diaz

Display board [125C]

SBS – Politics and International Affairs

Laws and Policies Regarding Felony Charges

Samantha Aragon

Display board [91C]

Building Social Capital through Multicultural Policies: Analysis of the Hyper-Diversity of Montréal

Gavin Furrey

Display board [92A]

The Effect of the Private Prison Industry and Increased Criminalization of Undocumented Workers on the Food Industry

Rebecca Weiss

Display board [92C]

Social Movements

Simone Green, Alexa Salazar, Julian Kanter,
Hallie Theriault, Christopher Fields

Display board [93A]

Political Participation – Undergraduate NAU Students

Grayson Guenther, Jessica Borders,
Noah Creek, Madeline Waddell

Display board [93C]

Political Attitudes

Lauren L'Ecuyer, Nick Dellisanti,
Hannah Noelle Cook, Patrick Garvey,
Hollie-Dee Hodgson

Display board [94A]

Attitudes towards Political Correctness on NAU Campus

Cole Miller, Jessica Olas,
Maitland Lonquist, Elizabeth A Hansen,
Cole Miller, Jasmine Chamblin

Display board [94C]

Wahhabism and Saudi Arabia

Rashed Alabhoul

Display board [95A]

The Evolution of Private Military Contractors to Private Military Companies

John Bower

Display board [95C]

Environmental Security: Thinking about the Future

Cameron Rood

Display board [96A]

SBS – Psychological Sciences

Are You Smarter than a Capstone Student? Assessment of Critical Thinking Skills in Psychology Classes

Chris Cade, Vinnie Cullotta, Hannah Lillie,
Nora Dunbar

Display board [100A]

Attitudes about Food

Brianna Hughes, Ann Futterman Collier

Display board [100C]

A Study of Hypnotically-Suggested Peripheral Vasomotor Control

Mark Gauthier-Braham

Display board [101A]

Changing the Culture of Concussion Reporting: An Inductive Approach for Concussion Reporting Strategies

Krystal Koehler, Keragan Cavolo,
Courtney Lanzi, Robin Sommer,
Taylor Lane, Patrick Doyle

Display board [101C]

Adaptive Memory: Boundaries and Influences of the Survival Advantage

Bradley Dishong, Michael Alban,
Elizabeth Fitzekam, Kayla South-Beck,
Celeste Stratton, Austin Guida

Display board [102A]

Culture and Happiness

Mackenzie Bryson, Berenice Carballo

Display board [102C]

Empathic Accuracy and Electroencephalographic Differences between Self and Other

Nathan Cruz, Dylan Barbera,
Christopher Woodruff, Anthoni Goodman,
Brett Velez, A. Sanchez, Nathan Cruz

Display board [103A]

The Impact of Sexual Harassment on Eating Disorders

Perla Palomares, Cassandra Mort,
Sydney Stogner, Sydney Vallin

Display board [103C]

The Potential Role of Problem Finding in Mathematics Education

Dianna Johnson

Display board [104A]

Trait Disgust Sensitivity as a Predictor for Overall Greater Unpleasant Rating

Leah Norris

Display board [96C]

Working Memory Symmetry Span Tasks and Phonological Similarity Effects

Kelsey Landstrom, Nicole Bies-Hernandez

Display board [96D]

Art-Making in Undergraduate Abnormal Psychology Classes

Danielle Misiak, Ann Collier

Display board [97A]

Impact of Quiet Ego Contemplation on Stress & Well-Being: Does Virtual Reality Make a Difference?

Robin Sommer, Keragan Cavolo,
Noel Schad

Display board [97C]

Anxiety, Daily Dysfunction, and Sleep Disturbance in Undergraduate Students

Haley Duncan, Anna Robertson,
Allie Jessen, Lauren Ellis, Ashley Duncan,
Savannah Jackson

Display board [98A]

Impact of Physical Activity on Diet Behavior

Savannah Jackson, Allie Jessen,
Anna Robertson, Ashley Stanley,
Lauren Ellis, Haley Duncan

Display board [98C]

Let's Keep It Casual: Comparing Friends with Benefits Relationships to Platonic Friendships

Alexandra Tyra, Andrew Haynes,
Meliksah Demir

Display board [99A]

Analysis of Possible Effects of Race and Gender on Motivations to Attend College

Amanda Wolcott, Anthony Camacho, Jacob
Coutts, Dana Donohue

Display board [99C]

Survival Processing versus Transfer Appropriate Processing

Austin Guida, Bradley Dishong,
Celeste Stratton, Kayla South-Beck,
Elizabeth Fitzekam

Display board [SBS-PSY Ease]

SBS – School of Communication

Communication Competence

Madeline Schamun, Tara Atwater,
Tara O'Dell

Display board [128A]

Pintrest

Karsyn Hoday, Paige Cordner, Alicia Batice

Display board [128B]

Anxiety on Social Media between Genders in Regard to FOMO

Alexa Fowler, Andrew Grant

Display board [128C]

Cultural Adversity in the University System: The Impact of Culture on Student Retention

Marlena Forster, Bradleigh Boer

Display board [128D]

Empathy Levels among Those with and without Siblings

Kyle Brown, MacKenzie Magill,
Nicholas Ford

Display board [129A]

Gender and its Influence on Conflict Management Styles

Sage Bates, Mackenzie Robinson,
Luke Wingfield, Steven Levenson

Display board [129B]

Stamp of Approval: Perceptions of Tattoos

Jack Mellecker, Edward Sturm,
Michael Koplan

Display board [129C]

End Homelessness: In What Ways Are Veterans at Risk of Homelessness, and What Mental Health Needs Are Currently Unmet among Veterans Here in Flagstaff

Marti Martin, Nicole Kaplan,
Alexandra Kopp, Kaitlynn Lewis,
Alexandra Lott

Display board [87A]

Family Violence

Jewel McKee, Isabella McCormick,
Caitlyn McCartney, Carmel Machain,
McKenzie Martin

Display board [87C]

Eradicate Social Isolation Regarding the Transgender Population

Gabriela Meraz, Rachel Morano,
Karina Nyberg, Jasmine Murrieta,
Danielle Nelson

Display board [88A]

How Does Social Media Affect Self-Perception?

Shelby Miller, Breana Morris,
Ariana Petrides, Brianna White,
Bria Pope, Riley Porter

Display board [88C]

Drawing the Line: Child Discipline vs. Abuse

Zachary Rosas, Aliyah Santellan,
Vera Rulison, Kathryn Smith, Bianca Raatz

Display board [89A]

The Social Perceptions of Homeless Individuals Re-Entering Society

Rebecca Stoffel, Celine Trotter,
Tristan Scott, Jennifer Torres, Anahi Ruiz

Display board [89C]

End Homelessness

Ashley Vandergrift, Remington Stoddard,
Paola Villa, Katelyn White, Chole Walker,
Cassi Warner, Clifton Taylor

Display board [90A]

Impact of Family Violence

Cheyenne Villanueva, Jayme Lipkind,
Alexandra Krishka, Selena Lathan,
Carly Kobasick, Aaron Laff

Display board [90C]

Ending Homelessness

Sierra Winter, Breanna Stefan,
Amanda Curley, Lovasia Holley,
Donovan McKenzie, Crystal Piedra-Lemus

Display board [91A]

SBS – Sociology and Social Work

Eating Habits and Income

Olivia Camping

Display board [82A]

Effects of Race on the Perception of Racial Inequality

Christopher Cummins

Display board [82C]

Is America Racist?

Samuel Hammer

Display board [83A]

The Importance of Establishing Disability Studies as a Diversity Course

Sandy Nguyen

Display board [84A]

Supporting the LGBTQ community in Flagstaff

Kimberly Belikoff, Alyson Carrizales,
Alyssa Cull, Cassandra Armendariz,
Andrea Avila

Display board [84C]

Awareness of School-Aged Children with Hyper-Active Behavior

Ajia Bell, Marisol Marisol Arroyo,
Tawnee Ayers, Emily Bailey, Haley Baker

Display board [85A]

Stressed Out at NAU

Leeza Caudillo, Astrid Camou, Bianca Byrd,
Ashley Darr, Hannah DeGiuseppe

Display board [85C]

Arizona Drug Crime Rates and Smart Decarceration

Halley Edwards, Ashley Hall,
Danna Durney, Violet Hays, Logan Feitelson

Display board [86A]

Benefits of Technology in Social Work Practice

Marissa Herington, Krysten Gonzales,
Claire Hammond, Jami Donaldson,
Samantha Finley

Display board [86C]

SBS – Women's and Gender Studies

(Sex) Tourism is Also Colonizing the Global South

Christopher Alagna

Display board [72B]

Implications of Historical Trauma on Sexuality, Gender, and Race

Sage Argyros

Display board [72D]

Dancehall: A Lens of Analysis of Caribbean Female Sexuality

Grace Dolan

Display board [73B]

An Exploration of the Negative Relationship between Mental Health and Lesbian, Gay Bisexual, Transgender, and Queer Youth

Nathaniel Evans

Display board [73D]

An Exploration of the Negative Relationship between Mental Health and Lesbian, Gay Bisexual, Transgender, and Queer Youth

Nathaniel Evans

Display board [73D]

SBS – Women’s and Gender Studies

***Black Subjectivities in Bloom: the
Presumption of Afro-German Discourse
After the 1980s***

Stevie Gunter

Display board [74B]

***No Pride in Visibility: Stonewall,
Marriage Equality and Orlando***

Jessica Hidalgo, Daniel Vanrachack

Display board [74D]

***The Role of Sexuality and Islamophobia
in Swedish Nationalist Political Rhetoric***

Connor Huenneke

Display board [75B]

***The Economic Collapse of
Argentina: Gender, Sexuality
and Neoliberal Agendas***

Kahla Lauinger

Display board [75D]

***Recuperating Black British Feminism:
the Legacy of Politically Black Feminist
Organizing in the 1980s and the
Exclusion of Black Lesbian Women***

Sue Lemos

Display board [76B]

***The Perfect Man: An Exploration of
Onnabe’s Access to Power and Agency
within the Host Club Scene***

Mollie McElligott

Display board [76D]

Islam, Sexuality and the Global North

Nina Morales

Display board [77B]

***Transnational Tourism in the Caribbean:
Sites of Recolonization and Imperialism***

Meredith Prentice

Display board [77D]

***Ni Aquí Ni Allá: An Analysis of
Transgender Migrants in the United
States and Their Disidentification,
Disconnection, and Disassociation***

Celeste Tabares

Display board [78B]

Sex Workers in Early American History

Marie Tomisato

Display board [78D]

***Will Making Sex Work Legal Create a
Safer Environment for Sex Workers?***

Adaline Walter, Adaline Walter

Display board [79B]

Naked: Exposed or Empowered

Hollie White

Display board [79D]

**Luncheon for CEFNS Presenters,
Faculty Mentors, and Judges
Keynote Speaker: Martin Casado**

**“Creating a Tech Startup; What I
Wish They Would Have Told Me”**

Martin Casado, PhD

*General Partner
Andreessen Horowitz*

**Friday, April 28, 2017
11:30 AM – 1 PM
du Bois Ballroom**



LUNCH

11:45 AM – 1:00 PM

**Skydome Stage B: Honors
Convocation & Awards Ceremony**

AFTERNOON SESSION

Skydome CAL Floor

2 PM - 4 PM – Exhibit

Figures and Their Relationship to Light

CAL, School of Art

Hailee Sattley

Independent Study Live Painting

CAL, School of Art

Markie Scheidegger

Independent Study Live Painting

CAL, School of Art

Hana Lipke

Throwing Pottery on a Potter's Wheel

CAL, School of Art

Connor Slunaker, Sara Larosa, Elijah Pilkington,
Matthew Wheeler, Mathew Carpenter

Skydome CAL Table

2 PM - 4 PM – Exhibit

Meet The Tunnels

CAL, English

Karen Renner

Skydome CIE Table

2 PM - 4 PM – Exhibit

**Summer Study Abroad
in Paris and Barcelona**

CIE, School of Art

McKaylee Lemon

Skydome FCB Table

2 PM - 4 PM – Exhibit

Tasting the World

FCB, Hotel Restaurant Management

Elise Fraher, Jessica Dimas, Kerry Anderson

From Scratch to Table

FCB, Hotel Restaurant Management

Christian Balderas, Christian Salem, Josh Daniel

Skydome SICCS Table

2 PM - 4 PM – Exhibit

Quantum Key Distribution:

A BB84 Implementation

CEFNS, School of Informatics, Computing,
& Cyber Systems

Leah Collins, Brayden Villa,
Bradley Racey, Erich Kroneberger

Skydome Roundtable 1 (R1)

2:30 PM - 2:55 PM – Roundtable Discussion

Housing in Flagstaff

SBS, School of Communication

Josie Weiland

Skydome Stage A

1 PM - 1:55 PM – Oral Presentation

**Mindfulness and Physical
and Mental Health**

HONORS, Honors College

Maddie Cripe, Dominic Barruetto,
Kendall Chapman, Jacob Mitchell,
Skylar Weber, Erin Langmead

3 PM - 3:55 PM – Oral Presentation

**Mindful and Pro-Social Teaching
and Learning**

HONORS, Honors College

Lisa Chu, Amanda McDonald, Nikki Patane,
Heidi Shepard, Bethany Durham,
Esme Erdynast

2 PM - 2:55 PM – Oral Presentation

**Is a More Compassionate
Society Possible?**

HONORS, Honors College

Megan Pappalardo, Kayla Cross, Hannah Leber,
Ally Novacek, Kasey Kallevig, Khaliah Gates,
Sage Wheelan, James Seganti

Skydome Stage B

1:30 PM - 1:45 PM – Oral Presentation

via Skype

**Discrimination against the Marginalized:
Assessing the Influences
of Various Characteristics**

SBS, Undergraduate Studies

Emma Rivera

2:20 PM - 2:37 PM – Oral Presentation

**BioSemiotics: Meaning, Purpose and
Communication in the Natural World**

CAL, Philosophy

Miles Scull

2:40 PM - 2:57 PM – Oral Presentation

**Angels, Dolls, and Playthings: Charlotte
Brontë's War on Repression**

CAL, English

Tyler Clark

1:45 PM - 2 PM – Oral Presentation

via Skype

**Lie Detection: Where Does an
Individual's Right to Privacy Intersect
with New Technologies for Detection
of Deception?**

SBS, Undergraduate Studies

John Crockett

2 PM - 2:17 PM – Film Exhibit

Art of the People

SBS, Anthropology

Jalyn Gagnon, Kiril Kirkov

Skydome Stage C

Dystopian Video Games & Virtual Reality

1 PM - 1:17 PM – Oral Presentation

Just Press X: Understanding Dystopia in Video Games

HONORS, Honors College

Alexander Hatch, Montgomery Glaser,
Kyle Savery, Joshua Johnson

1:20 PM - 1:37 PM – Oral Presentation

Virtual Reality: Actuality or Illusion

HONORS, Honors College

Patricia Lester, Desirae Enriquez,
Julia Harris, Andrew Acosta

1:40 PM - 1:57 PM – Oral Presentation

Finding More than This: The Virtual Realities of Global Warming

HONORS, Honors College

Makena Booker, MacKenzie Goodrow,
Ashley Harlan

Aliens & Monsters

2 PM - 2:17 PM – Oral Presentation

Critical Alien Theory: Xenophobia and Racism in Alien Films

HONORS, Honors College

Gabriella Johnson, Madeline Hubly,
Sergina Maignan

2:20 PM - 2:37 PM – Oral Presentation

Frankenstein: The Details Are in the Monster

HONORS, Honors College

Alicia Chavez, Andrew Servis,
Zach Bell, Ian Militello

Popular/Teen Dystopic Books, Films, & Media

3 PM - 3:17 PM – Oral Presentation

The Evolution of Teen Dystopias

HONORS, Honors College

Layne Elder, Chelsea Hintgen,
Sierra Bard, Shannon Connor

3:20 PM - 3:37 PM – Oral Presentation

The Source of the Dark Side: Authoritarian Regimes in Star Wars

HONORS, Honors College

Holly McEnaney, Ethan Vieane

Skydome Stage D

2 PM - 2:17 PM – Oral Presentation

Sexualization of Female Bodybuilding and Female Modeling

HONORS, Honors College

Joshua Kielman, Hanna Joralmon

Gender, Sexuality, and Identity in Marginalized Populations

2:20 PM - 2:37 PM – Oral Presentation

Gender and Sexuality of People with Intellectual and Developmental Disabilities

HONORS, Honors College

Devon Swanson, Kaley Schafer

2:40 PM - 2:57 PM – Oral Presentation

The Ins and Outs of Intersexuality: a Help Website

HONORS, Honors College

Brooke Cayo, Mackenzie Gargano, Anna Harris

Traditional Courtship & Sexual Deviants in the 18th Century

3 PM - 3:17 PM – Oral Presentation

18th Century Courting 101

HONORS, Honors College

Kelli Williams, Hunter Daniel,
Joshua Baxter, Kailah Esona

3:20 PM - 3:37 PM – Oral Presentation

French Kissing: Sexual Deviance in 18th c. France and Britain

HONORS, Honors College

Sean Buechel, Kathryn Meyers, Haley Duncan

3:40 PM - 3:57 PM – Oral Presentation

Hamilton: The Original American Hipster

HONORS, Honors College

Sarah Henley, Haley Kimble,
Cynthia Ortiz, Kris Schindele

University Union – Havasupai AB Room

2 PM - 2:25 PM – Oral Presentation

Capstone Project - The Wonder Factory

CEFNS, Mechanical Engineering

Tim Walters, Aaron Ake, Ahmad Alowais,
Mohammed Aldossari, Mohammed Alqahtani

2:25 PM - 2:50 PM – Oral Presentation

The Wonder Factory

CEFNS, Mechanical Engineering

Yongseok Park, Juan Shields, Ali Alkhaiyat,
David Rankin

2:50 PM - 3:15 PM – Oral Presentation

Hozhoni Button

CEFNS, Mechanical Engineering

Faleh Alajmi, Abdullah Alajmi,
Majid Alenezi, Mutlaq Alajmi

3:20 PM - 3:45 PM – Oral Presentation

Modified Bicycle Motion

CEFNS, Mechanical Engineering

Kathryn Lucke, Alex Lawson, Matthew Palmer,
Fahad Alajmi, Basem Alghamdi

3:45 PM - 4:10 PM – Oral Presentation

Go-Baby-Go Team C

CEFNS, Mechanical Engineering

Eric Trieu, Alwaleed Alhamra, Asrar Alkhabbaz,
Fawaz Almutairi, Sultan Almutairi

4:10 PM - 4:35 PM – Oral Presentation

Go Baby Go Team D

CEFNS, Mechanical Engineering

Shahah Eshkanani, Yousef Alraqem,
Yousef Alenezi, Saleh Almasari, Hussen Alajmy

University Union – Havasupai C Room

2 PM - 2:25 PM – Oral Presentation

Human Powered Vehicle

CEFNS, Mechanical Engineering

Brooke Vails, Sergio Fajardo Jr., Zachary Goettl,
Harley Gardner, Derrick Lemons,
Stewart Lockhart

2:25 PM - 2:50 PM – Oral Presentation

SAE Micro Aero Design Competition

CEFNS, Mechanical Engineering

Josh Gomez, Michael Medulla, John Cowan,
Mohammad Qasem, Yaqoub Almounes

2:50 PM - 3:15 PM – Oral Presentation

CNC Table for Routing Team A

CEFNS, Mechanical Engineering

Jessica Collins, Jason Troxler, Micael Ljungberg,
Bader Alfadhli, Uday Kadhum, Sara Hamadah

3:20 PM - 3:45 PM – Oral Presentation

Manufacturing Marvel

CEFNS, Mechanical Engineering

Andrew Atkinson, Nicholas Dvorsky,
Christopher Atkinson, Zaid Alzaid,
Hamad Alshamlan

University Union – Havasupai C Room

3:45 PM - 4:10 PM – Oral Presentation
Mobile In-Vitro Vessel Cast System
CEFNS, Mechanical Engineering
Bradley Backus, Kyle Davis, David Despars,
Chris Prodan

4:10 PM - 4:35 PM – Oral Presentation
Innovative Modeling of Diseased Vessels for Use in Endovascular Device Development.
CEFNS, Mechanical Engineering
Connor Gonzalez, William Bartholme,
Kayla Goodrich, Anne Marie Holter,
William Merritt, Amy Swartz

University Union – Kaibab Room

2 PM - 2:25 PM – Oral Presentation
Adobe Brick Suitability in Coconino County
CEFNS, Civil Engineering, Construction Management, and Environmental Engineering
Nick Westphal, Eva Rowe

2:25 PM - 2:50 PM – Oral Presentation
Carbonated Cement Kiln Dust (CCKD) as a Partial Cement Substitute
CEFNS, Civil Engineering, Construction Management, and Environmental Engineering
Mohamed Jatit, Felicia Curry,
Aide Robles, Ali Altameemi

2:50 PM - 3:15 PM – Oral Presentation
Findlay Toyota OHV Park
CEFNS, Civil Engineering, Construction Management, and Environmental Engineering
William Gil, Trandon Struck, Abdulmalik Alajlan,
Miranda Aakre

3:20 PM - 3:45 PM – Oral Presentation
The Use of Carbonated Cement Kiln Dust as a Soil Stabilizing Amendment
CEFNS, Civil Engineering, Construction Management, and Environmental Engineering
Tung Do, Abdullah Alqattan, Mohammad Alhulaila, Mohammad Altarkait

3:45 PM - 4:10 PM – Oral Presentation
Arizona Magma Mine Preliminary Assessment and Site Inspection
CEFNS, Civil Engineering, Construction Management, and Environmental Engineering
Jessica Szaro, David Finley, Josue Juarez

4:10 PM - 4:35 PM – Oral Presentation
Big Beam and Robin: PCI Big Beam
CEFNS, Civil Engineering, Construction Management, and Environmental Engineering
Qusai Alghalbi, Kacy Aoki, Mohammed Alradhi,
Rick Wilson

University Union – Oak Creek Room

2 PM - 2:25 PM – Oral Presentation
TaylorMade-Adidas Golf Company Characteristic Time Test Automation
CEFNS, Mechanical Engineering
Maylee Kevorkian, David Handy,
Christopher Forgach, Maryam Albanna

2:25 PM - 2:50 PM – Oral Presentation
Solitude Design Vesta Drying and Heating Bag
CEFNS, Mechanical Engineering
Christopher Ivie, Avery Baker, Julianne Benson

2:50 PM - 3:15 PM – Oral Presentation
Wonder Factory Maze Solving Robot
CEFNS, School of Informatics, Computing, and Cyber Systems
Ariana Garcia, Brennen Boudreaux,
Paeton Keller, Matthew Robertson,
Megan Ross

3:20 PM - 3:45 PM – Oral Presentation
Ultra-Light Solar Aircraft
CEFNS, Mechanical Engineering
Joshua Nobis, Gabriel Vega, Ivan Morales,
Aria McCardell, Jesse Rheingold,
Sydney Goodman

3:45 PM - 4:10 PM – Oral Presentation
Collegiate Wind Competition
CEFNS, Mechanical Engineering
Melissa Hoover, Joshua Danny,
Chase Donnell, Jesus Bravo,
Brent McFarlane, Rafeal Vera

4:10 PM - 4:35 PM – Oral Presentation
Low-Power Wind Turbine Boost Converter
CEFNS, School of Informatics, Computing, and Cyber Systems
Mary Koehler, Victor Rinaldi, Jialin Min, Yakun Qie

University Union – Sycamore Room

2 PM - 2:25 PM – Oral Presentation
Aortic Aneurysm Vessel Model
CEFNS, Mechanical Engineering
Lance Clothey, Trevor Crowe, Matthew Denike,
Brandon Starks, Eric Adolf

2:25 PM - 2:50 PM – Oral Presentation
Reproducible Human Aneurysm Model
CEFNS, School of Informatics, Computing, and Cyber Systems
Clint Morris, Keegan Labanz, Jeremy Anderson,
Khaled Alotaibi

2:50 PM - 3:15 PM – Oral Presentation
Thoracic Aorta Aneurysm Model
CEFNS, Mechanical Engineering
Dominic Smith, Tanner Moll, Michael Munoz,
Douglass Begay

3:45 PM - 4:10 PM – Oral Presentation
SRP Fluids Analysis
CEFNS, Mechanical Engineering
Thomas Hill, Clayton Surratt, Brianna Moore,
Galen Geislinger, Abdullateef Alhumaidan,
Abdulaziz Alanzi

4:10 PM - 4:35 PM – Oral Presentation
SRP Fuel Measurement Discrepancy Investigation
CEFNS, School of Informatics, Computing, and Cyber Systems
Jose Merino, A Arbpagast, K Felix,
F Garcia, Z Troxel, Z Yang

University Union - Walnut AB Room

2 PM - 2:25 PM – Oral Presentation
Improved Access to Kaguya Hyperspectral Image Data
CEFNS, School of Informatics, Computing, and Cyber Systems
Kelvin Rodriguez, Zowie Haugaard, Daniel Ohn,
Christopher Philabaum, Makayla Shepherd

2:25 PM - 2:50 PM – Oral Presentation
WebApp for Teaching Authentic Spanish Language
CEFNS, School of Informatics, Computing, and Cyber Systems
Keith Saunders, Ashley Green, Andreas Salazar,
Joshua Sommers, Nigel Sultan

University Union - Walnut AB Room

2:50 PM - 3:15 PM – Oral Presentation

Data Visualization on Enterprise Storage
CEFNS, School of Informatics, Computing,
and Cyber Systems

Armondo Thomas, Joshua Melton,
Alejandro Varela, Jack Barrett, David Miller

3:20 PM - 3:45 PM – Oral Presentation

WibTeX: Reference Management System
CEFNS, School of Informatics, Computing,
and Cyber Systems

Charles Duso, Jarid Bredemeier,
Hayden Aupperle

3:45 PM - 4:10 PM – Oral Presentation

**Orchard, an Automated Branching and
State Management Tool for Big Data
Analysis Pipelines**

CEFNS, School of Informatics, Computing,
and Cyber Systems

Christian Buskirk, Chris Blazer, Curtis Rose,
Peter Bellagh, Jorden Kreps

4:10 PM - 4:35 PM – Oral Presentation

PeerEvolve: Peer Evaluation Software
CEFNS, School of Informatics, Computing,
and Cyber Systems

Dylan La Frenz, Lucas Rayburn,
Kaina Crow, Zac Patten

Skydome Floor: Posters (2 PM – 4 PM)

CAL – English

**Characterization of Linguistic Gender in
1970 American Fiction**

Kaitlin Olson

Display board [52B]

**Does Length of Speech Time Affect
Listeners' Perception?**

Leigh Kimble

Display board [52D]

CAL – Global Languages and Cultures

**El Uso de la Metáfora Como
Instrumento Persuasivo
en el Discurso Político**

Shirley Springer

Display board [53B]

Sistemas de Aplicación de la Ley

Montana Edgar

Display board [53D]

CAL – Philosophy

**Philebus 28a-30d and 55d-67d:
Commentary on the Grammar
and Vocabulary of Plato on God
and the Good.**

Hayden Niehus

Display board [54B]

**Philebus 31a-55b: Commentary on
Grammar and Vocabulary of Plato on
the Forms of Pleasure**

Brianna Zgurich, George Rudebusch

Display board [54C]

CAL – School of Art

The Four-Legged Seasons

Haley Battung

Display board [55D]

Defying Gravity

Victoria Bordelon

Display board [56B]

**Whistle Stop Café: Rehabilitating
a Historic Building**

Kathryn Brower

Display board [56D]

Meadowgrove Farms: A Younglife Camp

Julia Cieslak

Display board [57B]

**Ski Haus Ski and Snowboard Shop
Relocation and Renovation**

Emilee Coultrap

Display board [57C]

**Arizona Snowbowl Remodel
and Expansion**

Nicolette Kay

Display board [58B]

**TV and Film Studio Take on Edgy
Sustainable Design**

Camille Manalili

Display board [58D]

Modern Meets Authentic Mexican

Ilse Ornelas

Display board [59B]

CAL – School of Art

V'POSH Los Angels Corporate Fashion Headquarter

Jamie Whyte

Display board [59D]

NAU South Campus Library Proposal

Rachel Fulcher

Display board [CAL-ID Easel]

Rockhouse Playschool Daycare Remodel

Shanley Infranca

Display board [CAL-ID Easel]

CAL – Theatre

Creating the Modern Mythic Figure: Abraham Lincoln in Suzan-Lori Parks' The America Play and Topdog/Underdog

Hector Ramirez

Display board [55A]

CEFNS - Biological Sciences

Nutrition and the Healing of Fractures

Madison Gerber

Display board [31B]

Temporal Dynamics of C. tuberculostearicum-Induced Sinusitis

Shari Kyman, Irene Zhang

Display board [31D]

Variation in Intensity of Infection by Echinostoma metacercaria in Bullfrog Tadpoles from Four Northern Arizona Water Treatments

Tiffany Tran

Display board [32B]

Do Lymph Nodes from Hunted Elk and Deer Make Informative Targets for Assessing Wildlife Disease Prevalence?

Isaiah Self, Carrington Knox-Hilson,

Anne Justice-Allen, Esther Rubin,

David Wagner, Dawn Birdsell

Display board [32D]

Arsenic Exposure Health Effects in Western Mosquitofish, Gambusia affinis

Kalai Kollus, Riley Smith, Catherine Propper

Display board [33B]

Identification of Antigens from B. pseudomallei for Diagnostic Assay Development Using Experimentally Challenged Rhesus Macaques

Kyle Headley, Erik Settles,

Courtney Seavey, Austin Shannon

Display board [33D]

Are Clostridium difficile Infections Only Spread in the Hospital? Reservoirs of C. difficile in Flagstaff, AZ

Amalee Nunnally, Nathan Stone, Heidie

Hornstra O'Neill, Jason Saul, Carmel Plude,

Jacob Vinocur, David Wagner

Display board [34B]

Reducing the Average Shelter Length of Stay for Geriatric Canines

Emily Bowen

Display board [34D]

PIT Tag Detection Using Submersible Antennas

Noah Ratliff, Laura Tennant, Alice Gibb,

David Ward

Display board [35B]

Does Body Shape Affect Jump Performance in Killifishes?

Ashlee Bussey, Michael Minicozzi,

Alice Gibb

Display board [35D]

Improving Melioidosis Treatment: Detecting Antibiotic Resistant Mechanisms in Burkholderia pseudomallei

Sierra Jaramillo, Carina Hall, Adina Doyle,

Josie Delisle, Jim Schupp, Jason Sahl,

Vanessa Theobald

Display board [36B]

Investigating a Human Plague Case in Madagascar's Capital after 17 Years of No Reported Cases

Heather Centner, Carina Hall,

Dawn Birdsell, Minoarisoa Rajerison,

Kekely Voahangy,

Soanandrasana Rahelinirina,

Maherisoa Ratsitorahina

Display board [36D]

Collection and Identification of Macroinvertebrates in and around Montezuma Well

James Boothroyd, Angela Rincon,

Rebecca Beresic-Perrins, Chris Wirth,

Kim Whitely, Tina Greenawalt, Bonnie Bain

Display board [37B]

Selfing within the Preferentially Outcrossing Leech, Helobdella modesta (Hirudinida: Glossiphoniidae).

Cassidy Klovansh, Shay Young,

James Boothroyd

Display board [37D]

Seasonal Trends in Larrea Tridentata Leaf Starch

Linnea Gear

Display board [38B]

Detection of Streptococcus gallolyticus and Closely Related Species in Precursor Colorectal Cancer Clinical Samples

Cherae Bilagody, Monica Yellowhair,

Mark Linhart, Sonora Olivas,

Emily Kaufman, Heidi Hornstra-Oneill,

Greg Caporaso

Display board [38D]

How Climate Conditions Affect Bee Communities along Elevation Gradients

Arcelia Isais-Gastelum, Jeremy Scuderi

Display board [39B]

Cytotoxic Effects of Essential Oils on Bacterial Biofilms

Agnieszka Szumska, Austin J. Garcia

Display board [39D]

Ionic Liquids Sterilize and Prevent Biofilm Formation in Skin Wound Healing Devices

Tatum Bardsley, Maxwell Zimmerman,

Andrew Koppisch, Nathan Nieto,

Robert Kellar

Display board [40B]

Electrospun Aligned Fibers That Mimic White Matter Tracts in the Brain

Chloe Ng, Martha Fowler, Robert Kellar

Display board [40D]

Characterization of Glandular Trichome Exudate on Yellow Monkeyflower (Mimulus guttatus).

Evan Mee, Liza Holeski

Display board [41B]

Interactions between Nitrogen Fixing Bacteria and Switchgrass for Sustainable Biofuel Production

Ryan Lancione, Daniel Revillini,

Nancy Johnson

Display board [41D]

CEFNS - Biological Sciences

Plant and Pollinator Interactions between Forest and Meadow Habitat Types along the C. Hart Merriam Elevation Gradient

Brittany Oxford

Display board [42B]

Molecular Epidemiology of Cryptosporidiosis in León, Spain, during the Year 2015

Daniella LaPlante, María Benito, María Antonia Remacha, María Teresa Fernandez, Encarna Rubio, Joanna Cieloszyk, Benning Tieke

Display board [42D]

Low Diversity of Seagrass Suggests Low Resilience for Island Fishery

Kate Barkley

Display board [43B]

Using Molecular Tools to Identify Genetic Sources of Ticks that Vector Cattle Fever Parasites in Texas and Mexico

Shelby Hutton, Nathan Stone, Rebekah Turner, Juan Mosqueda, Donald Thomas, Greta Buckmeier, Pia Olafson

Display board [43D]

An Efficient Approach to Retrieving, Analyzing, and Assessing Genetic Sequences

Andrew Sanchez, Jason Sahl

Display board [CEFNS-BIO Easel]

CEFNS - Civil Engineering, Construction Management, and Environmental Engineering

Presence of Coliform in Oak Creek Canyon

Kylie Hemmele, Zachary Singer, Kenny Kreslake

Display board [10B]

Impacts of Snowmelt Runoff on Water Quality

Daniel'le DeVoss, Jason MacDonald, Kylie Dykstra, Artem Lezhniuk

Display board [10D]

CRKL Engineering

Camille White, Robert Hoppe, Elizabeth Tague, Kyle Weiss

Display board [11B]

Numerical Verification of Large-Scale Concrete Deep Beams

Yijie Gao, Robin Tuchscherer

Display board [11D]

CEFNS - Mathematics and Statistics

A Game of Chance Inspired by Othello

Alexandria Medeck

Display board [26B]

Infinite Trees of Primitive Pythagorean Quadruples

Marcela Gutierrez, Courtney Schmitt

Display board [26D]

CEFNS - Mechanical Engineering

Honeywell Endurance Valve Test

Bianka Camacho, Dustin Young, Cameron Schlatter, Garrett Murphy, Geordie Macdonald, Lance Gomez

Display board [12B]

Steering Wheel Not Included

rnes Distajo, Samuel Williams, Abdullah Alajmi, Abdulrahman Almutairi, Mohammad Aljuaidi

Display board [13A]

Unified Sumo Robot D

Rene Diyarza, David Feetterer, Jose Villegas, Yousef Alghareeb

Display board [13D]

Hozhoni Cleaning Crew

Hasan Aldhefeery, Fahad Alaenezi, Amber Juare, Hussain Alwateeb, Calvin Schnorbus

Display board [1B]

Sumo Bot Team B

Roman Lopez, Abdulwahhab Alhabashi, Abdullah Alshammari, Sulaiman Alhabshi

Display board [1D]

Design for Disability - Hozhoni Art A

Ahmad Alotaibi, Madison Douglass, Mohammad Alotaibi, Haitham Almohammedsaleh, Waleed Ahmad

Display board [2B]

Hozhoni Garden Device

Ahmad Alkhezzi, Mike Marner, Saad Alajmi, mobarak Alqenaei, Khaled Alanezi

Display board [2D]

In Home Gravity Harness

Hasan Farman, Khaled Alosaimi, Noah Oliver, Eileen Baker, Armando Garcia

Display board [3B]

Hozhoni Art Team B

Yongzhen Li, Jarrah Albathali, Rakan Alhajraf, Aly Alharbi, Abdulrahman Almarri

Display board [3C]

NAU Sumo Bot Competition Team A

Graham Rose, Hunter Lane, Sean Sussman, Jordan Ziegler

Display board [3D]

Remote ECG Monitoring Kit to Predict Patient-Specific Hearth Abnormalities

Kathryn Carpenter, Jiaming Chen

Display board [4A]

Secondary Ion Mass Spectrometry (SIMS)

Isaiah Cons, Sharna Beahm, Riley Ducey, Ben Hardesty

Display board [4D]

Honeywell Powder Amplifier

Nicole Mitich, Isaac Romero, Jacob Setzer, Savana Bezdicek, Luke Plumb

Display board [5B]

Go-Baby-Go Universal Controller

J. Clare Willis, Leia Trice, Luke Lockard, Taylor Tackett, Colter Hooker, Alex Thomas

Display board [5D]

Orbital ATK Rocket Separation System

Sage Pasternacki, Amanda Crawford, Christian Johnson, Roberto Gonzalez, Garrett Wright

Display board [8A]

Robo Games: Sumo and Bartending Robot

Gunnar Molony, Andrew Farnam, Christian Dooley, Zheng Liu

Display board [8B]

CEFNS - Mechanical Engineering

Orbital ATK Low Shock Payload Separation System

Dylan McAdams, Craig Choate,
John Buskirk, Neal Murphy, Brett Larzalere
Display board [8D]

GoBabyGo Team B (Universal Control)

Mohammad Alotaibi, Eid Alotaibi,
Salman Aldouser
Display board [9B]

CEFNS - Physics and Astronomy

Flagstaff RObotic Survey Telescope (FROST) Software Development

Michael Rynders
Display board [23D]

A Midsummer Night's Dream: Thermal Inertia of Oberon and Titania from Q-Band Observations of Eclipses

Rashawn Briscoe
Display board [24B]

Comparison of Structure from Motion to LiDAR Data for Geomorphic Change Detection

Nathaniel Bransky
Display board [24D]

Turbulent Gas Motion in Interacting Galaxy Systems

Connor Auge
Display board [27B]

Hydrothermal Alteration Analysis from the Flynn Creek Impact Crater

Haley Leonard
Display board [28A]

Numerically Simulating Gradient Alloy Materials

Robert Castellanos
Display board [28C]

CEFNS - School of Earth Sciences and Environmental Sustainability

Releasing Water into the Rio de Flag

Laney Stevens, Kristian Cordell, Ian Ooley
Display board [17B]

Invasive Species Informational Pamphlet and Lesson Plan

Micah Mossman, Christopher Dehoff,
Arcelia Isais-Gastelum, Austin Rueda,
Dalen Ward
Display board [17D]

Sustainable Living Initiative

Meaghan Hager-Garman, Lauren Peters,
Michael Vaughn
Display board [18B]

Understanding the Expanding Population of Flagstaff, Arizona

Michael Anthony, Steven Groves,
Nicholas Horvatic
Display board [18D]

Understanding the Effects of Talc Mineralization on Bio Signature Preservation in Stromatolites Carbonates

Adam Hoffmann
Display board [19B]

The Benefit of Bat Houses on Rangelands and Agricultural Spaces

Bruno Calderon Rivas, Amanda Ulmer,
Alexis Arriola
Display board [19D]

Chemical Signatures and Implications for the Provenance of the Green River Basin, Wyoming

Kiley Sheehan
Display board [20D]

Communicating Forest Restoration Projects on the Observatory Mesa

Alyse Crutcher, Gabriela Glavan,
Makenna Hopwood, Jackson Salazar,
Hannah Russell
Display board [21B]

Explosive Hazards of Scoria Cones and Chemistry of Magma Xenocrysts, Red Mountain, AZ

Daniel Van Gundy, Nancy Riggs,
Laney Stevens
Display board [21D]

Transtensional Faulting, Lake Mead, AZ: Mapping of Fault Splays Associated with the Transition from Normal to Strike-Slip Faulting

Christopher McDonell
Display board [22B]

Threatened and Endangered Plant Species in the Western US: Many Threats but Few Recovery Actions

Summer White, Emily Haworth,
Laura Huenneke
Display board [22D]

Giving the Moon a 21st Century Makeover

Shannon Harrel
Display board [23B]

CEFNS - School of Forestry

The Future of Southwestern White Pine

Patrick White
Display board [14B]

Effect of Restoration Treatments and Forest Type on Soil Microarthropod Communities in Valles Caldera National Preserve

Channing Laturno, Kara Gibson,
Anita Antoninka, Nancy Johnson
Display board [14D]

CEFNS - School of Informatics, Computing, and Cyber Systems

Prototyping a Dynamic Lift System for Assisted Mobility

Dustin Branges
Display board [13B]

Virtual Reality Assisted Data Analysis

John Misceovich, Liam Burke
Display board [7C]

Improved Efficiency Using Digital Control for an Electrical Grid Converter

Christopher Leffler, Ryan Lee,
Christian Endsley, Omar Almuhammad,
Kaylub Hemphill, Anthony Sagg
Display board [7D]

Smart Solar Generator

Jesse Saylor, Andrew Winegarner,
Frank Pocino, Michael Moser
Display board [CEFNS-ME Ease]

A Practical Application of Machine Learning-Based Classification Techniques to Proactively Identify Insider Threats

Joshua Bowen
Display board [12D]

FlagFriends Group Matching Application

Brandon Garling, Matt Nielsen,
Clarissa Calderon, Mohammad Alsobhi,
Xiangzhi Cao
Display board [15A]

CEFNS - School of Informatics, Computing, and Cyber Systems

Automated Website Testing

Max Wason, John Sadie, Peter Haschke, Jason Le

Display board [15B]

NAZ Animal Welfare Task Force Educational Pet Adoption Tool

Marjorie Hahn, Frankie Berry, Steven Gruenewald, Riley Shelton, Matthew Siewierski

Display board [15D]

The Virtual Office Door

Tyler Tollefson, Nicolas Melillo, Mitchell Hewitt, James Hauser, David Snow

Display board [20C]

Remote Telescope Activity Monitor

Gage Cottrell, Alexander Sears, Chris French, Justin Kincaid

Display board [6B]

High Performance Computing Cluster Visualization Tool

Michael Gilbert, Brandon Allen, Don Speer, Tanner Stevens, Andrew Stebenne

Display board [6D]

KineTrax, a Wearable Device for Recording Kinematics in a Community Setting

Christopher Whitney, Anthony Black, Cherie Parsons, Grant Swenson, Jack Jenkins

Display board [7B]

CIE - Center for International Education

Animal House: An Analysis of the Faunal Remains of an Elite Tomb at the Ancient Maya Site of Xunantunich, Belize

Katie Tappan, Gavin Wisner, Dylan Wilson

Display board [60A]

Using Echocardiography to Contrast the Difference in Stroke Volume between a Type II Diabetic and Non-Diabetic Heart during Exercise

Lyle Becenti, Chris Baldi, Genevieve Wilson

Display board [CIE EaseI]

VO2max Change after HIIT Exercise in Abdominal Surgical Patients

Nicole Beiley, Chris Baldi, Genevieve Wilson

Display board [60B]

Understanding Maori Health Identities

Cameri Taylor, Shalene Yazzie

Display board [60C]

Every Layer is an Event: Place-Based Research in Santorini, Greece

Jenna Chaffeur, Erin Kaplan

Display board [60D]

COE - Educational Leadership

Perceptions of Teacher Autonomy in Locally Managed, Start-Up Charter Schools: A Qualitative Approach

Brandon VanBibber

Display board [48A]

COE - Educational Specialties

Student Engagement and Lesson

Plan Revisions

Mariah-Janice Easley

Display board [48C]

FCB - Business Economics

Voting Rights

Carlos Rascon, Samuel Owens-Hess

Display board [44A]

Education

Erica Bronner, Matthew Mazon, Gabriel Vega

Display board [44B]

Minimum Wage

James Gerdes, Jackson Reynolds, John Herrero

Display board [44C]

The Public Choice Aspects of the Privatization of the Prison System

Richard Robertson, Mitchell Abernathy, Xinzhu Chen, Jerred Edwards

Display board [44D]

Public Choice Analysis of Political Structures

Samuel Rondou, Zachary Ewing, Tristan Soriano, Brett Anibas

Display board [45A]

Federal Policy Reform

Brenna Lenihan, Jonathan Hoffman-Sanchez, Michael Mullen, Vince Ricco

Display board [45B]

FCB - Marketing

Plastic Pollution in the Ocean

Erick Campos, Jack Katz

Display board [45C]

Marketing for Society – Anti-Hazing

Kyle Culler, Georganna Foos, Nick Valenzuela

Display board [45D]

Drinking & Driving among College Students

Jack Giovino, Justin Allen

Display board [46A]

Promoting Adoption of Sheltered Pets

Terryn Divilbliss, Anthony Scott

Display board [46B]

Promoting Arts Education in Schools

Clarissa Ducie, Jonathan Mills, Samantha Kvarda

Display board [46C]

Starting the Conversation

Felice Jiron, Brenna Campbell

Display board [46D]

The Importance of Art Education

Samantha Kvarda, Jonathan Mills, Clarissa Ducie

Display board [47A]

FCB - Marketing

Freeing Svay Pak

Elora Laier, Jacob Matheson, James Kendle

Display board [47B]

Oak Creek Watershed Council - Client Marketing Plan

Aitong Jiang, Marc Cooper, Kyle Hivon, James Kendle, Daniela Calderon, Xuewei Zhao

Display board [47C]

HONORS – Honors College

Punishments in 18th Century England

Scottie Bayles, Lydia Clarke, Kylie Warner, Elizabeth Noone

Display board [51D]

Children with Deafness: Sign Language versus Oral Upbringing

Olivia Burross

Display board [50D]

The 18th Century Court System's Prejudice against Class

Lydia Clark, Scottie Bayles, Elizabeth Noone, Kylie Warner

Display board [51B]

Where's the Feminism in Public Health Practice?: Evaluating a Health Education Program through a Feminist Lens

Emma McVeigh

Display board [HONORS Easel]

Power, Politics and Inequality: An Examination of Water Resource Management in Colombia

Philip Rody

Display board [49B]

Are Brain Measures of Empathy Affected by Perceptions of an Other's Criminal Status?

Taylor Grossman, Thomas Johnson, C. Chad Woodruff

Display board [49D]

Millennials: A One-Woman Show

Jessica Reinhart

Display board [50B]

SBS - Anthropology

Prehistory Art from Europe

Anthony Caracciolo

Display board [105B]

First Anatomically Modern Humans in North America

Coal Esposito

Display board [105D]

The Archaeology of Sexuality in Southeast Asia

Jennifer Hudson

Display board [106B]

The Archeology of Weapons and Warfare in North America

Ethan Novak

Display board [106D]

The Prehistory of European Art

Cullen Patterson

Display board [107B]

The Prehistory of the Domestication of Plants

Hannah Romero

Display board [107D]

The Prehistory of North America Art

Alejandro Sanchez

Display board [108B]

The Prehistory of Death and the Afterlife in Southeast Asia

Louisa Tribiana

Display board [108D]

The Prehistory of Death and the Afterlife

Arnolde van Osch

Display board [109B]

The Archaeology of Weapons and Warfare in North America

Bre Van Raalte

Display board [109D]

The Prehistory of Art in Europe

Katelyn Willsey

Display board [110B]

The Prehistory of Art

Kensi Wixon

Display board [110D]

Spirituality Unites

Mary Harrington

Display board [111B]

Archaeology of Warfare in the Middle East

Spencer Beckwith

Display board [111D]

The Prehistory of Art

Ottum Jones

Display board [112B]

No More Deaths: Increasing Awareness and Funds

Bárbara Arriaga Espinoza, Kelly Sloan

Display board [112D]

Education about Sickle Cell Trait within NAU Athletics

Amanda Ekdahl, Juanita Aldridge

Display board [113A]

What Poverty Can Do and What Can Be Done to Improve Global Issues and Conflicts

Tyanna Billy

Display board [113B]

Helping Past and Present Veterans in our Community

Tia Mitchell, Alexandria O'Hara, Sonya John

Display board [113C]

The Historical Background of La Virgen De Guadalupe

Reyna Santiago

Display board [113D]

Media Marketing for the Anthropology Department

Morris Tanner, Masahiro Hayase

Display board [114A]

No Human Being Is Illegal

Krista Neel

Display board [114B]

Beyond Museology: Youth Attendance at the Museum of Northern Arizona

Alexis Volta, Jessica Andrew, Dylan Wilson

Display board [114C]

Preserving Native American Languages

Sarah Stafford

Display board [114D]

Cultural Resource Management Collaboration Capstone

Kelsey Gruntorad, Shawn Dennehy,

Wendel Navenma, Greg Allen

Display board [115A]

Native Americans and Diabetes

Charlene Black

Display board [115B]

The Common Language: An Anthropological Investigation of the Flagstaff Craft Beer Industry

Sierra Serna, Philip Rody, Amanda Warda

Display board [115C]

SBS - Anthropology

**Exploitation of the Undocumented:
The Systematic Trivialization of
Immigrant Rights**

Vanessa Savel

Display board [115D]

Anthropology and Flagstaff Music

Greg Henderson

Display board [116A]

**The Prehistory of Food/Nutrition in
South America**

Chandler Leo

Display board [117A]

The Way of Life

Aidan Perea

Display board [117B]

SBS - Applied Indigenous Studies

**The Untouched Mind: Indigenous
Knowledge and PTSD**

Elmer Jackson

Display board [126A]

**Violence against
Native American Women**

Kiyanie Haungooah

Display board [126B]

**Understanding Health Disparities Using
Indigenous Research Methodologies**

Helene McOwen

Display board [126C]

**Language Barriers in Research
and Surveys**

Leonariya Charley

Display board [126D]

**Indian Health Service + Rez Dogs =
Happy I.H.S. Clients**

Adrian Hedding

Display board [127B]

**Promote Indigenous Youth
Empowerment by Community-Based
Nation Re-Building**

Tyanna Billy

Display board [127C]

SBS - Civic Engagement

**Internship at Habitat for Humanity
of Northern Arizona**

Haley VanAllen

Display board [81A]

**Environmental Advocacy Intern with
Friends of Flagstaff's Future**

John Meyer

Display board [81B]

**Market of Dreams – LONGEVITY
PROJECT**

Paige LaBreche

Display board [81C]

**Civic Engagement Minor
Capstone: Internship**

MarleyMae Webster

Display board [81D]

SBS - Criminology and Criminal Justice

**Alcohol Consumption and its Effect
on Sexual Assault**

Daniel Barela, Nalleli Perez, Derek Kaiser,
Orianna Hernandez

Display board [117D]

Secret Slavery

Ambree Borg, Mackenzie Magill, Claire
Filler, Abigail Hillman

Display board [118B]

**Hyper Masculinity and its Relationship
with Domestic Violence**

Nicholas Clayton, Evan Cawthon,
Matt O'Dwyer, Alfredo Rodriguez

Display board [118D]

**Texting and Driving
as a Public Health Issue**

Luke Million, Jacqueline Padilla,
Ruby Martinez Arjona, Jazzmine Ecker

Display board [119B]

Partnering with Child Help

Sarah Rivituso, Lorena Lechuga-Gutierrez,
Max Gomez

Display board [119D]

Domestic Violence: Why?

Samantha Becerra

Display board [120D]

Perceptions of Wrongful Conviction

Caylie Hilgart, Amanda Alonso, Wade Coull,
Jared Fries, LaKisha Wheat

Display board [121B]

So You Think You're Unbiased?

Camille La Dell, Paris Johnson, Haley Timar,
Hanna Jacobs, Sasha Elbeck

Display board [121D]

Sexual Violence on College Campuses

Whitney Nowlen, Kaitlin Donnelly,
Marissa Gallagher, Montana Edgar

Display board [122B]

Boxed Out

Kyle Renning, Madison Bohan,
Michelle Adams, Brittani Lusain

Display board [122D]

**The Impact of Forensic
Evidence in Court**

Debora Townsend, Brooke Payne,
Bryan Mugge, Greg Haber, Samm Becerra

Display board [123B]

**Ethics and Theories: Arrest
and Interrogation**

Perla Palomares, Anthony Cordes,
Lucas DeRose, Courtney Gage

Display board [124B]

Raising Funds for Victims of Crimes

Delia Smith, Caitlyn Kelley, Zoe Brown,
Keith Helo

Display board [124D]

**Prevalence of Sexual Violence on a
College Campus vs. Perceived Sexual
Violence on a College Campus**

Mary Thomas, Anthony Walker,
Jake Smith, Allison Negrete, Justin Denis

Display board [125B]

**College Campus Domestic
Violence Awareness**

Jaclyn Somborovich, Amber Stewart,
Aaryn Dorsett, Stephaney Soza

Display board [125D]

SBS - Ethnic Studies

The Elements of Hip-hop: How Hip-hop Is More than Just Music

Kaitlyn Welk-Robbins, Victoria Friedli, Adam Moreno, Jordan Myers, Cristian Rivera

Display board [80B]

Hidden Figures within Hip Hop

Shyanne Carter-Wade, Rodrigo Bello, Lissette Flores, Tiffany Brown, Gabe Villarreal, Bekka Alvarado

Display board [80C]

Generation Hip Hop

Celeste Tabares, Rafael Lopez, Robert Vaiza, Jackson Hukari, Alanna Grady

Display board [80D]

SBS - Psychological Sciences

Acceptance and Commitment Therapy for Chronic and Persistent Pain: A Systematic Literature Review

Adisen Hennessy, Sarah Jones

Display board [100B]

Family-Focused Treatment for Bipolar Disorder in Children

Savannah Jackson, Leah Norris

Display board [100D]

Cognitive Behavioral Analysis System of Psychotherapy for Depression in Adults: A Systematic Literature Review

Kauaikekai Lara, Daniel Reza, Alena Martinez

Display board [101B]

A Systematic Literature Review of Dialectical Behavior Therapy on Borderline Personality Disorder in Adulthood

Joseph Mendoza, Taylor English

Display board [101D]

Virtual Reality Exposure Therapy for Social Anxiety Disorder: A Systematic Literature Review

Itzel Ramirez, Shaundeen Sixkiller, Amber Chrisman

Display board [102B]

The Impact of Parent-Child Interaction Therapy on Oppositional Defiant Disorder: A Systematic Literature Review

Sahar Shakoori, Jalen Prayer

Display board [102D]

Systematic Literature Review of the Coping Cat Practice

Mackenzie Staires-Ziemann, Marc Lizcano, Stephany Malatesta

Display board [103B]

Motivational Interviewing for Child Substance Abuse: A Systematic Literature Review

Kaitlyn Stumme, Kaitlyn Stumme, Emerson Friedrich-Gullberg

Display board [103D]

The Impact of Maudsley Family Therapy for Anorexia Nervosa: A Systematic Literature Review

Melanie Townsend, Alexandra Carillo

Display board [104B]

A Systematic Literature Review of Cognitive Behavioral Therapy for Attention Deficit Hyperactivity Disorder in Adults

Anastasia White, Gabrielle Marson

Display board [104D]

Impact of Prosocial Lyrics among Different Genres on Empathetic Responses

Cassandra Flynn, Lauren Kotrba, Adelin Duraps, Olivia Hankins

Display board [82B]

The Relationship between Parenting Styles and Depression

Nicole Morrison, Paloma Rochin, Hailey Heldt, Alison Gregg

Display board [82D]

The Effect of Parenting Styles on Self-Esteem

Morgan Sweeney, Brooke Nelson, Nicole Hallett, Chandler Leo

Display board [83B]

Academic Locus of Control and Academic Anxiety

Melinda Irwin, John Mendoza, Hailee Schilp, Noel Schad

Display board [83D]

Unsolicited Sexual Advances In Person versus Online and Self Esteem

Lina Dunbar, Emily Jerdonek, Kendall Weber, Jordynne Black

Display board [84B]

Facial Recognition Accuracy as Affected by the Other-Race Effect

MJessica Griego, Kendall Galat, Cynthia Ortiz, Marisa Carroll

Display board [84D]

Cha(RA)cter: Define Yourself

Breanna Hernandez, Jennifer Squires, Juliana Hill, Kaitlyn Verfuert, Jasmine Cahill

Display board [85B]

Psychedelics, Mindfulness, and Optimism

Nicole Lucas, Mindy Feldman, Madison Schear, Aaron Fleming

Display board [85D]

The Effect of Gender and Nicotine Consumption on Self-Esteem

Taylor Scott, Karla R. Lopez, Matthew Schall, Katie Saline

Display board [86B]

Cosmetic Use among College Women

Rosa Batista, Bryanna Cazares, Kaley Greenman, Miquela Goodson, Katelyn Kjesbo

Display board [86D]

Exploring the Relationship between Social Rejection and School Shootings

Fernanda Wolburg Martinez, Colton Rippey, Amber Killgore

Display board [87B]

Do You Really Know You?

Carly Fiel, Shayla Butcher-Sliffe

Display board [87D]

The Effect of Attractiveness on Perceived Criminality

Kaitlyn Fohs, Jessica Lintel, Hannah Meenan, Blane Hernandez

Display board [88B]

Color and Perceived Attractiveness

Brenna James, Spencer Murphy, Samantha Kerley, Krissy Wolf

Display board [88D]

Nature and Mindfulness

Blake Piper, Lauren Ellis, Christiane Harris, Martin Cummings

Display board [89B]

Self-Compassion and Test Anxiety

Brittany Weese, Tristan Bem, Anna Harris, Josie Sheets

Display board [89D]

Emotions and Opinions about Social Issues

Amber Lanzieri, Tyler Griner, Katherine Barton, Jaden Pawlak

Display board [90B]

SBS - Psychological Sciences

Do LGBT+ Students Experience More Stress on College Campuses?

Haley Duncan, Samantha Davis, Phillip Guzman

Display board [90D]

Engagement Levels and Memory within the Classroom

Alexis Hardy, Maren Greve, Caitlyn Seymour, Mackenzie Morgan-Morton

Display board [91B]

Self-Compassion in Romantic Relationships

Ashley Emans, Madelyne Churchill, Kyria Jack, Dayana Villarreal

Display board [91D]

Self-Compassion and Empathy

Courtney Ferris, Corey Harper, Jared Trujillo, Jocelyn Robles

Display board [92B]

Stress and Time Management: A Lover's Quarrel

Tanner Glen, Jennifer Westermann, Rodrigo Bello, Arlena Gannon

Display board [92D]

The Effects of Elicited Disgust on Moral Judgement

Amber Jones, Kainan Jarrette, Maria Espinoza

Display board [93B]

The Correlation between Physical Health and Self-Esteem

Paulina Joniec, Chris Hockenberry, Makenna McAllister, Sydney Hausberger

Display board [93D]

Childhood Experiences and Personality

Autumn Loustaunau, Elliot Yount, Katrina Dobson, Lorenzo Celis

Display board [94B]

Is Instagram Associated with Mood Change?

Christina Mastrosimone, Anthony Aldape, Carly Down, Jennifer Sexton

Display board [94D]

Emotional Impact of Online Memes

Katherine Radics, Michelle Firchow, Danielle Camarillo, Alexis Kaczmarowski

Display board [95B]

Perceptions of Rape of College Campuses

Ally Winterrowd, Lauren Genevro, Breena New, Michael Goodell

Display board [95D]

Music and First Impressions

Alexandria Aguayo, Jordan Chandler, Megan White, Anna DeMatteo

Display board [96B]

Cognitive Behavioral Therapy for Generalized Anxiety Disorder: A Systematic Literature Review

Molly Bjerk, Yennifer Robles

Display board [97B]

The Impact of Cognitive Behavior Therapy on Adolescents with ADHD: A Systematic Review

Sarah Guinea, Showna Wells

Display board [97D]

Cognitive Behavioral Therapy for Schizophrenia: A Systematic Literature Review

Madison Bohan, Makenzie Wilkings

Display board [98B]

A Systematic Literature Review of Behavioral Therapy versus Serotonin Inhibitors on Obsessive Compulsive Disorder

Luis Castro, Alissa Apter-Prodger

Display board [98D]

Behavioral Therapy/Behavioral Activation Therapy for Major Depressive Disorder: A Systematic Literature Review

Samantha DeWolf, Lorena Lechuga Gutierrez

Display board [99B]

The Impact of Cognitive Processing Therapy on Posttraumatic Stress Disorder: A Systematic Literature Review

Makayla Gray, Israel Urbina-Muniz

Display board [99D]

SBS - Sociology and Social Work

Nigeria's Radicalized Islamist Terrorist Group: Boko Haram

Kelsey Landstrom

Display board [83C]

SBS - University Studies

How Do Mainstream Media Outlets Shape Public Opinion on Environmental Issues?

Sarah Spainhower

Display board [72A]

Mindfulness and Adolescent Stress

Aspen Lewis

Display board [72C]

Do Video Games Alter People's Behavior?

Hugo Arzola

Display board [73A]

Using Exercise as a Treatment for Bipolar Disorder.

Derek Bean

Display board [73C]

Colony Collapse Disorder

Lucas Faircloth

Display board [74A]

Decoding the Book of Genesis through the Use of Equidistant Letter Sequences, Gematria and Search Visualizer

Karen Getto

Display board [74C]

Sustainable Agriculture and Obesity: Can We Solve More than the Environmental Crisis with Local Food Systems?

Emma Geurts

Display board [75A]

Rehabilitation for Human Trafficking Victims

Regine Gibson

Display board [75C]

Evolution of Pediatric Oncology in Regards to a Decrease in Mortality Rate

Sierra Hickingbottom

Display board [76A]

The Cause & Effect of Shoe Pricing

Isaiah Kennedy

Display board [76C]

The Influence of Gender Roles on Horror Cinema

Emma Kukulski

Display board [77A]

What are the Causes Leading to the Violence & Crime in Chicago?

Jaleni Neely

Display board [77C]

SBS - University Studies

Lebensborn

Albert Peralta

Display board [78A]

Modular Furniture

Sean Rooney

Display board [78C]

Why Can't I Buy My Dream Car in America?

Karsten Sellers

Display board [79A]

The Theory of Enlightenment

Miranda St George

Display board [79C]

Archival Code of Ethics

Hailey Tiedemann

Display board [80A]

Accessibility Information

Walkup Skydome

- Parking: Lot P66 (SE of the building) is the closest.
- Entrance: Accessible entrance E side of building.
- Elevator: Yes, two, one on the SW side and one on the N side.
- Restrooms: on Concourse level and field level, both all gender and single stall.

du Bois Center

- Parking: Lot P45 (S of the building) is the closest.
- Entrance: Accessible entrance SW side of building.
- Elevator: Yes, center of building.
- Restrooms: on first floor and basement.

University Union

- Parking: Lot P16A (S of the building) is the closest accessible parking.
- Entrance: The accessible entrance is the main entrance located on the west side of the building.
- Elevator: Yes, located to the east of the main entrance just before the path of travel slopes down.
- Restrooms: Due to construction, the only bathrooms are the two all-gender restrooms on the first floor near Student Life and the Inclusion and Multicultural Services center. There are additional restrooms on the first floor near the Hot Spot as well.

Thank You

We wish to thank the faculty, staff, graduate students, judges, volunteers, moderators, and student ambassadors, without whom this event would not have been possible.

A special thanks goes to the Organizing Committee, especially Becky Butcher, MaryLynn Quartaroli, Bryan Sherwood, and Rob Morrison, and to all the faculty mentors, individuals, companies, organizations, and grant programs that assisted students in the completion of their internships or their research, creative, and design projects.

2017 Judges

We gratefully acknowledge the following faculty, staff, alumni, and friends who volunteered to judge for CEFNS, HHS, and SBS. Thanks, also, to the volunteers who signed up after the program print deadline and could not be acknowledged.

College of Engineering, Forestry, and Natural Sciences Judges

| | | | |
|------------------------|--------------------------|------------------------|----------------------|
| David Able | Phil Dudas | Samantha Kruse | Jeff Ross |
| Fatemeh Afghah | Haley Dunleavy | Paul Kulpinski | Michael Roter |
| Chuck Albrecht | Samrat Dutta | Rebecca Lausch | Elizabeth Rothwell |
| Ali Applin | Dana Ernst | Troy Lorents | Rachel Rubin |
| Ana Araya-Anchetta | Ana Paula Fabio Carvalho | Mark Major | Jason Sahl |
| Stephanie Arcusa | Pena Braga | Elizabeth Mallett | Daniel Sanchez |
| Kayla Arendt | Daniel Foley | Linda Mangelsdorf | Marie Sather |
| Danielle Awbrey | Bruce Fox | Timothy Mangelsdorf | Katherine Sementilli |
| Molly Bechtel | Joshua Froyum | Melissa Mark | Philip Sementilli |
| Stasia Begley | Aubrey Funke | Porter Marsh | Matthew Shanker |
| Paul Begovac | Alicia Garner | Rebecca Mau | Austin Shannon |
| Rebecca Best | Richard Gerkin | Marguerite Mauritz | John Sharber |
| Thomas Bethune | Patrick Goodman | David McCain | Molly Shuman-Goodier |
| Dawn Birdsell | Barbara Goodrich | Molly McCormick | Lisa Skinner |
| Terence Blows | Nellie Gopaul | Brannon McCullough | Alma Solis |
| Brian Blue | Henry Grover | John McKeever | Abraham Springer |
| Helen Bothwell | Carina Hall | Gary McNaughton | Clarissa Starbuck |
| Jolene Bowers | Heidi Hansen | Rachel Meyer | Karen Steinbronn |
| Sandra Brown | Bill Heibel | Cedar Milazzo | Ella Stephens |
| Hannah Budinoff | Anthony Hessel | Carissa Miyano | Nathan Stone |
| Bertrand Cambou | Alexandra Heyert | Lloyd Mogensen | James Swift |
| John Cardani | Richard Hofstetter | Ehren Moler | Uzma Tahir |
| Archie Carreon | Marisol Holder | Ryan Moreno | Robert Thames |
| Darron Clark | Liza Holeski | Nathaniel Mull | David Trilling |
| Jill Cocking | Allyson Holmes | Karim Nassar | Victoria Vakarchuk |
| Amy Cohen | Heidie Hornstra O'Neill | Gregory Nelson | Archana Varadaraj |
| John Compton | Henry Hooper | Jeff Newbold | Jennifer Wade |
| Kathleen Corak | Kathy Howe | Dylan Nicholls | Rebecca Wagner |
| Mitia D'Acot | Jani Ingram | Fethiye Ozis | Jonah Walsh |
| Kevin Daily | Victor Jimenez Jr | Bret Pasch | Jacob Wells |
| Marie Daily | Renee Jordan | Stephen Pirman | Nat White |
| Pradeep Dass | Kaikea Kaoni | Narendiran Rajasekaran | Brooke Whitworth |
| Todd Davis | Monika Keindl | Paymon Rassti | Kristin Wiggins |
| Yann-Olivier De | Kara Kelty | Abolfazl Razi | Kyle Winfree |
| Jouvancourt De Channes | Grace Kendall | Michael Remke | Tim Wojtulewicz |
| Barbaros Demircan | Cindy Klingberg | Trish Rensink | Brett Woods |
| JB DeWitt | Daniel Klingberg | Aradhana Roberts | Stepahnie Yard |
| Danielle Dillon | Benjamin Koch | Danielle Ross | |
| Michael Downey | Mike Konitzer | | |

College of Health and Human Services Judges

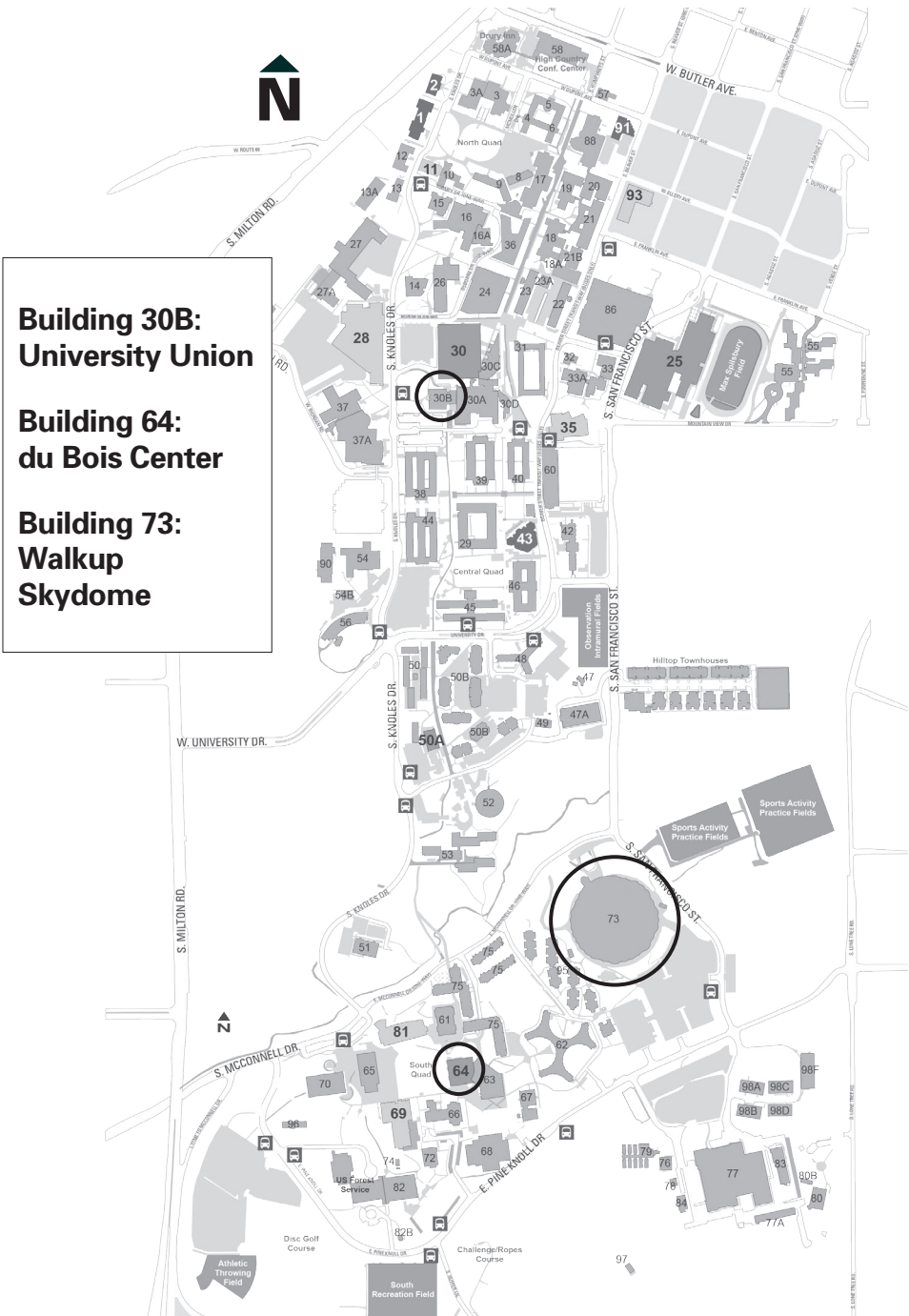
| | | | |
|---------------------|------------------|----------------|---------------------|
| Victoria Acevedo | Rachel Billowitz | Dorothy Dunn | Vicki Penna |
| Christina Angela | Laura Bounds | Glenn Edgerton | Priscilla Sanderson |
| Mooroian-Pennington | Sam Callahan | Steve Palmer | Amy Smith |
| Jennifer Armfield | Sally Doshier | Sonya Pederson | Kate Watkins |
| Tim Behrens | | | |

College of Social and Behavioral Sciences Judges

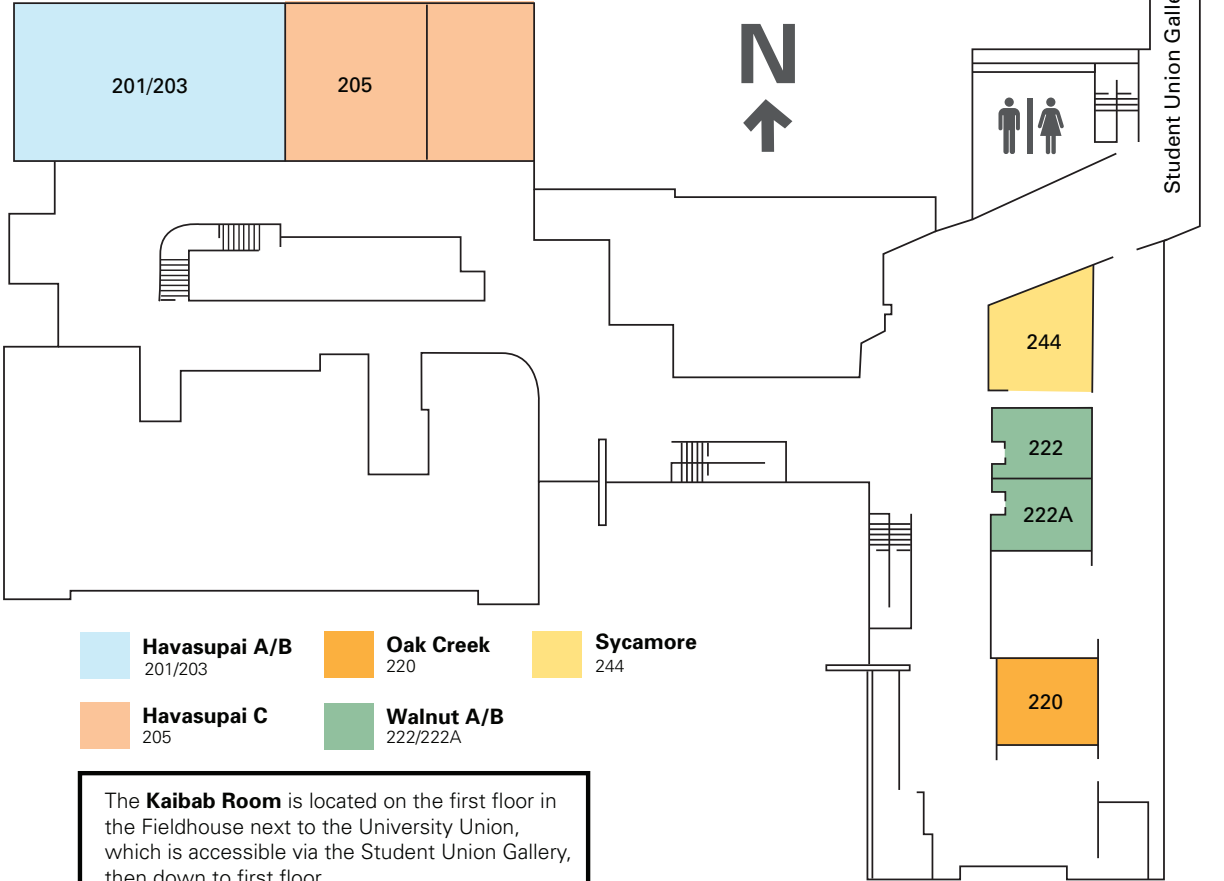
| | | | |
|---------------|-----------------|---------------|---------------|
| Steven Barger | Chrissina Burke | Lynne Corbin | Heidi Wayment |
| Jamie Bowie | Anne Collier | Tom Filsinger | |

Search for presenters, titles, and abstracts at the event kiosks or online at nau.edu/symposium

Map of Campus



University Union – Second Floor



- Havasupai A/B** 201/203
- Oak Creek** 220
- Sycamore** 244
- Havasupai C** 205
- Walnut A/B** 222/222A

The **Kaibab Room** is located on the first floor in the Fieldhouse next to the University Union, which is accessible via the Student Union Gallery, then down to first floor.

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