HUMBOLDT STATE UNIVERSITY

ideaFest

A SHOWCASE OF RESEARCH AND PROJECTS

University Library

Thursday, April 19, 2018

Research Posters

Library 2nd and 3rd Floors • 3:00 - 5:00pm • Listed A-Z by Poster Title

Welcome

HSU President Lisa Rossbacher • Library 2nd Floor • 3:15 pm

Guided Sculpture Walk

Library 1st Floor (Lobby) • 3:00 pm

Dance Performances

Library 2nd Floor • 3:00 pm

Musical Performances

Library 1st Floor (Lobby) • 3:20 pm

Theatrical Performances

Library 2nd Floor • 4:00 pm

Balance & Wellness
in First Responder Agencies

Library 2nd Floor, Room 208

Celebration of Writing Hall

Library 2nd Floor, Fishbowl

Digital Storytelling

Library 3rd Floor, CTL Classroom

Research Presentations | Library 2nd & 3rd Floors

1. #IAmAMenstruator: Uncovering the relationships and product security of Menarche at Humboldt State University

Marilyn Villalba, Criminology and Justice Studies, Undergraduate Student
Cutcha Risling Baldy, Native American Studies, Faculty

College of Arts, Humanities & Social Sciences

The purpose of this research is to gain an understanding of the access to menstrual hygiene products at HSU. The research will help identify the problems menstruators face when obtaining and purchasing menstrual hygiene products on campus, identify the ways HSU lacks providing menstruators with adequate resources. This research will provide an understanding why having access to menstrual products could relieve financial burden, stress, and other emotions experienced by menstruators. Through surveys and interviews we hope to bring awareness about the experience emotional, and financial stresses menstruators experience when they limited access to menstrual hygiene products.

2. 3-Dimensional Modeling of DH2GC Archeological Sites

Jonathan Roldan, Anthropology, Undergraduate Student
Eden Oleson, Anthropology, Undergraduate Student
Boston O'Donohue, Anthropology, Undergraduate Student
Sarah Conner, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project presents a modern method to preserve and study the past. 3D Technology is taking over current research in the archaeology field. Agisoft Photoscan is a 3D rendering software that has aided in this new methodology and form of inquiry. The basis of this project is to process field data from the Dos Hombres to Gran Cacao Archaeological Project and configure a 3D model of excavation sites from the 2017 field season. The objective of this project is to provide a method to analysis and conserve archaeological artifacts, sites, and features. As a result of this research, a model will be produced to facilitate access to the archaeological project without being physically present.

3. A Carbon Inventory: Where does HSU Stand?

James Lamping, Forestry, Undergraduate Student
Amanda Donaldson, Forestry, Undergraduate Student

College of Natural Resources & Sciences

In our study, an inventory of Humboldt State University's trees was conducted to better understand the current biomass and carbon the campus is sequestering. The goal of the study is to present HSU with an understanding of what trees sequester more carbon so they may make informed decisions on future tree planting projects.

4. A Glimpse into the Student Study Abroad Perspective

Denise Macias, Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

Over 300,000 U.S. students studied abroad in the academic year 2015-2016, and the number is growing. (NAFSA) To understand the experiences of students who study internationally during their college education, I conducted semi-structured interviews with HSU students who studied abroad in the last three years. With my study, I wanted to understand how various aspects of study abroad programs, like housing, length, community interactions, and so forth, impact the student's enjoyment of their program. My aim is to provide feedback for study abroad leaders to create meaningful programs for students.

5. A Veterans Music Program to Promote Social Connection among Veterans with PTSD

Nicholas Vasquez, Psychology, Graduate Student
Madison Wieking, Psychology, Undergraduate Student
Elizabeth Alvarez, Psychology, Undergraduate Student
Kevin Franklin, Psychology, Undergraduate Student
Bryan Sherburne, Psychology, Graduate Student
Benjamin Graham, Psychology, Faculty

College of Professional Studies

Music programs in non-clinical settings can have positive impacts on people living with mental health issues, including veterans with PTSD. Heroes' Voices provides cohort-based music programs to promote psychosocial well-being, with the potential to link veterans to additional supportive resources. This poster will share Heroes' Voices pilot evaluation data from two applied contexts: a suburban residential treatment facility and a rural outpatient clinic. This poster will explore lessons learned with implications for promoting student veteran success at HSU.

6. Adverse Childhood Experiences (ACEs) and Mitigating Resources among Humboldt State University Students

Jade Reano, Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

The goals of this project is to assess adverse childhood experiences (ACEs) among students who attend Humboldt State University to explore campus resources students use to sustain their academic success, despite these challenges. I conducted a survey on HSU students (n=133), scoring their ACEs using the Kaiser Permanente study of childhood experiences, & asking a series of questions about their childhood, adult & HSU experiences. I found various resources & attachments that students reported as supporting their success in college. This research can help bring attention adverse childhood

experiences on campus, & can provide a useful insight on resources needed to serve this population.

7. Agency: Seeds of our Next Generation

Molly Gilmore, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My service learning project is with the Sunnybrae Middle School after school program. During my time spent at the after school program, I have learned about the process of empowering our youth to become social change agents in our community through support and knowledge of food justice. I facilitated activities with the kids around ideas of growing their own food, the importance of shopping locally, and the implications revolved around food in our community.

8. AHHA, A New Perspective For Addressing Homelessness

Lindsey Diggs, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

The Affordable Homeless Housing Alternatives (AHHA) nonprofit, based in Eureka, California, challenges the dominant approaches used to solve homelessness within the community. They believe everyone has the right to a safe living environment no matter their present circumstances. AHHA aims to build transitional housing in the form of tiny house villages. Their main focus is to highlight the importance of community amongst those that are disadvantaged and to incorporate it into the heart of all proposed solutions moving forward.

9. Ambivalent Sexism Predicting Attitudes Toward Affirmative Action for Women

Hannah Ferguson, Psychology, Undergraduate Student
Bryan Sherburne, Psychology, Graduate Student
Carolyn Monette, Psychology, Undergraduate Student
Vikky Joma, Psychology, Undergraduate Student
Desiree Garcia, Psychology, Undergraduate Student
Kimberly Vazquez, Psychology, Undergraduate Student
Christopher Aberson, Psychology, Faculty

College of Professional Studies

Affirmative action policies have been put into place to help women make the steps towards equality and hopefully amend prejudiced attitudes.The current study focuses on types of sexism and their relationship towards affirmative action support. It is hypothesized that higher scores on hostile and benevolent sexism will be associated with decreased support for affirmative action directed towards women. Community members in Northern California (N = 110) were measured. Measures include that of hostile, benevolent, and ambivalent sexism. Results indicate that only hostile sexism is potentially a key factor in determining whether individuals oppose affirmative action directed towards women.

10. An EdVenturous Quest

Blake A. Hildabrand, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project highlights the service learning project completed with the Humboldt County Office of Education community partner. More specifically their Redwood EdVentures Quests. These Quests are scavenger hunts that, with the help of interpretive learning clues, lead you through many of the North Coast parks and other nature trails. Not only do the quests add value to the specific quest locations, these quests create a space for childhood wonder and discovery of natural systems inspiring them to have a more harmonious relationship with their environment. On a deeper level, these quests foster ideas of environmental and social interdependence, shared leadership, and transformation.

11. An Evaluation of the Blue Lake Biomass Plant Emissions: Air Quality and Health Impact on the Blue Lake Rancheria

Suzanne Garrett, Social Work, Graduate Student

College of Professional Studies

The Blue Lake Rancheria community has had visibly polluted air and matter emitted from the local biomass plant over the recent past. The Rancheria is concerned about the negative health impact the biomass plant could be having on the environment and community. This literary review hopes to establish an understanding of the impact of the Blue Lake biomass energy plant, & impact on air quality, determine standards of emissions which it operates and examine the gaps between current healthy standards of emission and that of the Blue Lake biomass plant. The findings will inform the Blue Lake Rancheria and will raise public awareness of the air quality and health impact of the biomass energy plant.

12. An Investigation into the Copper Toxicity of Anti-Fouling Paint

Brittany Light, Chemistry, Undergraduate Student
Austin Silavong, Biological Sciences, Undergraduate Student
Sean Craig, Biological Sciences, Faculty
Matthew Hurst, Chemistry, Faculty
Claire Till, Chemistry, Faculty

College of Professional Studies

The goal of our research is to analyze the effect of copper toxicity in anti-fouling paint on invasive bryozoan species. The goal of this project is to determine the ideal concentration of copper in anti-fouling paint to prevent the ability of these invasive species to attach themselves to ship hulls and be transported around the oceans.

13. Analysis of Herbicides on Culturally Significant Plants Throughout Yurok Ancestral Territory

Amanda Martinez, Chemistry, Undergraduate Student
Frank Cappuccio, Chemistry, Faculty
Jenny Cappuccio, Chemistry, Faculty
Robert Zoellner, Chemistry, Faculty

College of Natural Resources & Sciences

Use of herbicides by public and private entities throughout the Yurok ancestral territory, has raised concern for the health of Native peoples exposed to these organic residues on plant materials due to the significant roles that plants have within the Yurok culture (such as basket, medicinal and ceremonial purposes). The herbicides 2,4-D and Triclopyr are analyzed by using organic extraction followed by High Performance Liquid Chromatography (HPLC) analysis. Additional research was also conducted such as computational calculations on 2,4-D and its derivatives along with more sampling sites added to this herbicide research.

14. Arcata Demographics

Michael Thomas, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

This poster will look at the demographics of Arcata and how this effects the community. This would include students at HSU and also people out in the community of Arcata. Looking at the demographics of a community would be interesting in order to see what the population looks like. For many people that live in a community they do not know the demographics because the community is so large. Even though a city like Arcata is small to most it is still large enough for many people not to know one another. This would also help improve the relations between the students of Humboldt State University and the community of Arcata.

15. Art Integration: Deepening Learning Through the Arts

Sarah Peters, Education, Staff
Lauren Zika, Environmental Studies, Undergraduate Student

The North Coast Arts Integration Project (NCAIP) is a four-year federally funded project that seeks to integrate and strengthen arts instruction in eight rural elementary and middle schools with the goal of improving student academic performance, reasoning skills, creative thinking and engagement. NCAIP increases student exposure to the arts through field trips and in school performances by local, national and international performing artists. In addition, our project builds community bridges by partnering teachers with local teaching artists and other local arts institutions. We will share examples of an arts integrated lesson and provide a chance for you to have a short arts experience.

16. Assessing BDNF Levels over 30 Days via Capillary Blood

Sally Hang, Psychology, Graduate Student
Josue Rodriguez, Psychology, Graduate Student
Roldan Garcia, Psychology, Undergraduate Student
Emily Murphy, Psychology, Undergraduate Student
Heather Kilgore, Psychology, Graduate Student

College of Professional Studies

Brain health, and the benefits of physical exercise, have been linked to a biological signaling molecule called brain-derived neurotrophic factor (BDNF). Numerous studies have investigated BDNF levels before and after exercise. Some benefits of increased BDNF concentration have been associated with better cognitive functioning, memory and neuronal support. Decreased BDNF levels have been linked to poorer cognitive functioning, poorer memory recall, and apoptosis (cell death). This study investigates BDNF variability over a longer duration (30 days) through capillary-drawn blood and will do a correlational analysis to see if recent physical exercise increases circulating BDNF concentrations.

17. Assessing The Effectiveness of Latinx Center for Academic Excellence & Cultural Space Model Mentorship

Rosalba Gonzalez, Social Work, Graduate Student

College of Professional Studies

We will be assessing the newly implemented programming model used by the LCAE in order to understand where improvements are needed and where we can identify strengths to establish best practices at the center. We will also be looking at how many people use the center and how we can focus outreach efforts in the future. This assessment is being done for internal programming purposes and to support HSU in its larger mission to improve outcomes for students of color, particularly Latinx students at HSU.

18. Astronomy Education Research

Thomas Elliott, Physics/Astronomy, Undergraduate Student
Lauren Kaufman-Carlson, Physics/Astronomy, Undergraduate Student

College of Natural Resources & Sciences

The basis of our research is to assess why learning gains are low within introductory astronomy courses and how scores can be improved. Examining pre and post scores from an Astronomical Diagnostics Test we were able to examine learning gains of 56 students. We used Hake's normalized gain formula to quantify learning gains. The average learning gain found was 0.20 and the highest gains fell among questions such as phases and position of the moon, eclipses, and seasons on Earth, with gains between 0.5-.64. Because Hake's normalized gain formula is biased, we are looking into other methods of quantifying our data.

19. Bake the World a Better Place: 501(c)3 Development

Jeff Rich, Social Work, Graduate Student

College of Professional Studies

Bake the World a Better Place is a non-profit organization based out of Denver, Colorado that aims to holistically improve the community. Presently, the organization engages in job training and job placement of marginalized populations such as those experiencing homelessness. Additionally, continuing collaborations are being made with local hotels to assist with housing individuals during the job training process. Products made during the classes are shared with individuals living on the streets. Through building community partnerships between business, social service agencies, and vulnerable populations, each entity is taking an active role in helping improve their community.

20. Balance, Mobility, and Fall Risk in Indigenous Rural-Dwelling Older Adults and Urban Dwelling Older Adults in Humboldt and Del Norte County

Andre Bouweraerts, Kinesiology, Graduate Student

College of Professional Studies

By 2030, 20% of the U.S. population will be over the age of 65. Among this age group, falls are the leading cause of injuries, hospitalizations, and fatalities in the United States. Within California, rural community dwelling communities have higher rates of falls than urban. Indigenous populations fall more than the national average (34-40.3% vs. 30%), suggesting the rates of falls, and thus physiological declines, may be greatest among Indigenous rural community-dwelling populations. The purpose of this study is to examine intrinsic, extrinsic, and the incidence of falls among rural dwelling Indigenous older adults and urban dwelling older adults in Humboldt and Del Norte Counties.

21. Bio-Renewable Hydrogel Polymers from Modified Chitosan: Progress Toward Three Dimensional Cell Growth Scaffolds

Tara Alizadeh, Chemistry, Undergraduate Student
Frank Cappuccio, Chemistry, Faculty

College of Natural Resources & Sciences

Hydrogels are water-containing gels that have a hydrophilic polymer network and can absorb a large quantity of water without the dissolution of the polymer network. The current research focuses on producing hydrogels from chitosan, a bio-renewable polymer, and trans-cinnamic acid. The resulting solutions are photo-crosslinked in a catalyst-free environment under broad band ultra-violet (UV) radiation to produce hydrogels. The hydrogels show an average 75% swelling capacity in H2O. Initial cell growth studies have been carried out on sterilized hydrogels. Current efforts are being directed towards optimization of gels towards cell growth.

22. Bones Grow, but Do They Shrink: A Taphonomic Study on Postmortem Bone Shrinkage

Brianna Addington, Anthropology, Undergraduate Student
Molly Ballard, Anthropology, Undergraduate Student
Ryan Martis, Anthropology, Undergraduate Student
Sarah Mangham, Anthropology, Undergraduate Student
Yomayra Mora, Anthropology, Undergraduate Student
Thomas Matthews, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

An important aspect in biological anthropology and forensic cases is determining an individual's stature in life. Stature estimation involves the use of formulas that have been derived from measurements taken from an individual's bones. Bones, in life, are encased in the body, which is a wet environment. Our research looks at the postmortem taphonomic processes which may lead to the bone shrinking after death, in the relatively dryer outside environment. Bone shrinkage could have an impact on stature estimations in forensic and other anthropological cases. Our preliminary findings indicate that environment and time affect bone shrinkage rates.

23. Bridging the Gap in Education: At-Risk Students in Court Community Schools

Ashley Torres, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project aims to demonstrate to educators about students being a product of their own environment by observing the Humboldt Office of Education's Court Community Schools' classroom environments. These observations will be compared to a variety of different learning styles that work best with at-risk youth. These learning styles would be recommended ways for educators to help bridge the gap between at-risk students' academic and social skills in traditional-learning classroom settings.

24. Cannabis Carbon Accounting Model

Jenna Kelmser, Environmental Science and Management: Energy and Climate, Undergraduate Student
Wyatt Kozelka, Environmental Science and Management: Energy and Climate, Undergraduate Student
Cheyenna Burrows, Environmental Science and Management: Energy and Climate, Undergraduate Student

College of Natural Resources & Sciences

Humboldt County is home to a uniquely large and diverse Cannabis industry comprised of a variety of operation styles, leading to different associated energy intensities and carbon emissions. This project aimed to deploy a detailed, accessible carbon accounting model for Cannabis operations - one which is adaptable to various operation styles and industry practices. Our Cannabis Carbon Accounting Model, is a fully-functional user-friendly tool for the rapid assessment of Cannabis operations carbon footprints. Understanding the extent of Cannabis operation emissions and their source will allow governments, businesses, and the general public to find ways to lower their environmental impact.

25. Charity Over Corrections

Patrick Marzett, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

Youth programs like the Boys and Girls Club of America are important institutions that help the communities youth more rather than Governor Brown's proposal to increase the spending across the state's youth correctional system.

26. Chemical Fingerprinting of Sanidine from Long Canyon Dome, Sierra Nevada, California

Regina Khoury, Geology, Undergraduate Student

College of Natural Resources & Sciences

The Long Canyon Dome (LCD) is a 185 ka rhyolite dome in south-central Sierra Nevada, California. The rhyolite pumice from the pre-eruption contains less SiO2 and a different mineralogy, than the rhyolite magma erupted from LCD. This suggests the dome was tapping into two different rhyolite magma bodies during one eruption, or a hotter rhyolitic magma intruded into a cooler magma, triggering the eruption. The Scanning Electron Microscope (SEM) Energy Dispersive Spectroscopy's (EDS) point and shoot method was used to measure the chemical signature of sanidine crystals in pre and post eruption sample. The rhyolite pumices' at LCD represents similar but slightly different magmas compositions.

27. Cohort Effectiveness Amongst Criminology and Sociology Freshman

Samantha Silver, Sociology, Graduate Student

College of Arts, Humanities & Social Sciences

Research presenting the effectiveness of cohorts as a means for improving freshman retention and academic performance amongst Sociology and Criminology courses.

28. Combining Environmental Education with Music at Sunnybrae Middle School

Amber Rausch, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My service learning project is with Sunnybrae Middle School at the after school program. I have spent the duration of the semester tutoring children in grades 6-8 and planning my activity. I am combining environmental education with music by obtaining a group of children in order to a discuss environmental topics and creating musical lyrics using that dialogue and an arrangement of instruments. The goal of this project is the inform the next generation about the importance of planetary health as well as human relationships to nature by touching on subjects such as pollution, oppression and ways in which one can make differences that will contribute to the creation of a more just world.

29. Community Connection: Becoming a CASA (Court Appointed Special Advocate) and the Relation to Political Science

Bailey Boyd, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project highlights my experience volunteering with CASA of Humboldt and how it relates to a political science degree. Often CASA is marketed to the child development and social work majors; however, I will demonstrate how it is equally connected to political science majors. An internship with CASA applies several aspects of political science including: social advocacy and understanding the judicial system. CASA's gain extensive legal experience through writing court reports, collaborating with attorneys, learning child welfare laws, and advocating in court. My ultimate hope is that my project will spark your interest in becoming an advocate, so you can make a difference for a child!

30. Community Needs Assessment for the Bear River Band of Rhonerville Rancheria

Desiree Sirca, Social Work, Graduate Student

College of Professional Studies

My project is a community needs assessment for the Bear River Band of Rhonerville Rancheria, who are my community partners. I am working with Liana Whiteley, Director of Social Services. This needs assessment is needed to effectively assess and address the educational needs of the youth in their community. It is also a way to assess how the local school districts can better support the education of the tribes youth, their families, and their community. With this needs assessment, I hope to be able to capture the necessary information to demonstrate Bear River Rancheria's need for an educational system that is supportive and inclusive of their community and culture.

31. Comparative Analysis of Planktonic Productivity in Trinidad Bay and Nearshore Environments in Northern California During the 2017 Upwelling Season

Jacob Partida, Oceanography, Undergraduate Student
Nathan Rothberg, Oceanography, Undergraduate Student
Gregory Paez, Oceanography, Undergraduate Student

College of Natural Resources & Sciences

This study investigated how biological productivity in the shallow waters of Trinidad Bay, located adjacent to Trinidad Head, differed from the productivity in exposed nearshore environments before and after the onset of seasonal upwelling in 2017. Biological and hydrographic measurements were collected prior to the onset of seasonal upwelling (March) as well as after (May and June) to determine if the associated hydrodynamics affected the spatial distribution of planktonic productivity. Measurements suggest that Trinidad Bay exhibited enhanced secondary productivity relative to nearby exposed environments during relaxation events following strong upwelling periods.

32. Construction of Flow Injection System to Detect and Analyze Zinc Using Fluorescent Methods

Mathew Dominguez, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

Zinc is a metal that is found in trace amounts in seawater and acts as a micronutrient to marine phytoplankton. To detect and quantify trace amounts of zinc, a flow injection (FI) system was constructed using a flow-through fluorescence detector. The FI system was interfaced with a LabVIEW program which allows for the signals to be analyzed and quantifies time resolved peaks. Zinc, when bound to the organic ligand p-tosyl-8-aminoquinoline (p-taq), fluoresces when exposed to an excitation wavelength of 377 nm and emits light at 495 nm. The fully functioning FI system will be used in the analysis of zinc in Humboldt Bay and coastal waters.

33. Construction of Niemann Pick Disease Type C1 HEK293 Cell Model Utilizing CRISPR Gene Editing

Stephanie Valencia, Biological Sciences, Undergraduate Student
Austin Kraff, Biological Sciences, Undergraduate Student
Haley Nisson, Biological Sciences, Undergraduate Student
John W. Steele IV, Biological Sciences, Faculty

College of Natural Resources & Sciences

Niemann Pick Disease Type C1 (NPC1) is a rare lysosomal storage disorder that affects 1:150,000 people. The disease is characterized by cholesterol accumulation within lysosomes, as well as clinical cognitive decline and neurodegeneration. These symptoms can be attributed to a mutation in the NPC1 gene that leads to the interruption of the intracellular cholesterol transport. Using CRISPR Cas9 technology, the ability to make a cellular model with inducible CRISPR gene regulation can give researchers considerable insight into the cellular pathology of Niemann Pick Disease Type C1 as well as the ability to apply targeted drug therapy and potentially lead to drug discovery.

34. Continuum of Violence Research Project

Michihiro Sugata, Sociology, Faculty
Kerri Kidwell, Sociology, Undergraduate Student
Erika Aoki, Sociology, Undergraduate Student
Tony Le Donne, Geospatial Analysis, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project explores the spatial distribution of automobile title lenders across four metropolitan areas. Automobile title loans are specific form of alternative finance that targets individuals who do not have access to traditional forms of credit. Our research shows that the spatial distributions of these alternative financial service providers concentrate in lower income neighborhoods where residents tend to be poorer, less educated, and less white. Thus, there are clear class and racial dimensions to the marketing, spatial presence, and consumption of these alternative loan products.

35. Correlations between the X-ray and UV spectrum in PG1126

Michael Gibbons, Physics Undergraduate Student
Marcus Benavides, Physics, Undergraduate Student
William Grieder, Physics, Undergraduate Student
Paola Rodriguez Hidalgo, Physics, Faculty
Margherita Giustini, SRON - Netherlands Institute for Space Research, Faculty
George Chartas, College of Charleston, Faculty
Pat Hall, York University, Faculty

College of Natural Resources & Sciences

PG 1126-041 is a closeby luminous active galactic nuclei (AGN) with a low redshift that displays complex and variable UV and X-ray absorption, which identifies winds expelled from the black hole environment. The data in this paper, collected by the Hubble Space Telescope, was normalized by polynomial fits applied using our own developed Python code. We analyzed the absorption by several ions (OVI, PV, NV, SiIV, CIV and the Lyman series) at 4 different epochs. Our goal is to study a potential correlation between the X-ray and UV absorption to understand their driving mechanism. Discoveries in this project will be compared to AGN much farther than the relatively close PG 1126-041.

36. Creating Inclusive Outdoor Spaces

Sandra Sandoval Ruezga, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My poster outlines the work I have put in, as an Environmental Studies capstone student, to create an educational outdoor program that is more inclusive for the Latinx community through the Wildlands Conservancy. I decided to work on this project because as a Mexicana I have struggled with being in enviromental spaces and feeling like I don't belong there. Although this program will be implemented on the local level it will still help to mitigate the problem that is a predominantly white Environmentalist Movement. If through this I am able to empower at least one Latinx student to feel like they belong in the Environmental Movement, then I will consider it a success.

37. CRISPR-Induced Overexpression of Huntingtin as a Cellular Model of Huntington's Disease

Dixie Blumenshine, Biological Sciences, Undergraduate Student

College of Natural Resources & Sciences

Huntington's disease (HD) is associated with CAG trinucleotide repeats in the HTT gene, which encodes the huntingtin protein. Our central hypothesis is that overexpression of normal huntingtin, with the eventual inhibition of cells' autophagy pathway or other route of clearance, will lead to a disease-like state. In order to address this hypothesis, we are developing a novel human cell model that will allow us to assess how excess huntingtin is managed and/or cleared by cells, and precisely how cell death occurs upon buildup of huntingtin protein. Using this model as a starting point, it is possible to study the response of human cells to huntingtin overexpression.

38. Cultivating Minds Through Food and Appropriate Technology

Ryan Sendejas, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

In conjunction with the Campus Center for Appropriate Technology(AT), for my service learning project, I sought to share intersectional knowledge with the HSU community and beyond of self-resiliency, while being mindful of one, & impact upon the earth through appropriate technology and food sovereignty. Students and community members worked together to construct a communal garden that included AT construction techniques and promoted ecologically sound sustainable food systems that are beneficial to the entire community. It was my goal to empower individuals to become agents of change within our global community and invoke values that promoted the well being of the environment and people.

39. Deconstructing political morale: The development of the political demoralization scale (PDS)

Stephanie M. Byers, Psychology, Graduate Student
Nicholas Ortiz, Psychology, Graduate Student
Lily Syfers, Psychology, Graduate Student
Karla Moreno, Psychology, Undergraduate Student

College of Professional Studies

Minimal research combines the dimensions of political morale to develop a scale that broadly measures political demoralization. Political demoralization can be described as experienced discontentment and distress within the current political system, wherein some people may feel powerless to enact change. (Clark & Kissane, 2002). The current study is the development of a scale of political demoralization, which tests its relationship between political hopelessness, political efficacy and social desirability. Analyses of the PDS demonstrate the scale's reliability and validity.

40. Del Norte County: A Look at Educational Achievement

Aubrey Pellicano, Psychology, Graduate Student

College of Arts, Humanities & Social Sciences

Rural communities like Del Norte County face additional challenges in obtaining a quality education compared with urban areas. According to the Rural Families Data Center, this achievement gap is due to excessive absence and truancy, low socioeconomic status, poverty, and high school dropout rates. Archival data from the last ten years was obtained from the CDE DataQuest website and analyzed to inform a report created by the California Center for Rural Policy for dissemination throughout the community. Generally test scores were lower for Del Norte and low-income students. These results show that more attention must be paid to education systems in rural communities to improve outcomes.

41. Designing a Measure of Academic Help Seeking

Danielle Siegel, Psychology, Undergraduate Student
Henry Panti, Psychology, Undergraduate Student
Christopher Moreno, Psychology

College of Professional Studies

Existing studies on academic help seeking suggest that students only seek help if they are already academically confident. To examine these findings, The Humboldt Academic Help Seeking Scale (HAHSS) was developed in order to assess student's academic help seeking motivations and behaviors. The HAHSS was found to be reliable, and provided evidence for validity with criterion, convergent, and discriminant measures. It was also found that high scores on the HAHSS were significantly correlated with higher grade point averages. Real-world applications are discussed, such as implementing more effective online help programs in order to aid students intimidated by seeking in-person help.

42. Detection of Trace Metals in Seawater: The Importance of UV-Oxidation

Parisa Ghaffari, Chemistry, Undergraduate Student
Claire P. Till, Chemistry, Faculty

College of Natural Resources & Sciences

According to oceanographic research, trace metals are essential in life of marine phytoplankton, since many trace metals are micronutrients that are essential for biological processes. However, due to extremely low concentrations of trace metals in seawater, it is difficult to measure their concentrations; therefore, specific analysis methods must be performed in order to determine the concentrations of trace metals. Preliminary data on the effectiveness of UV irradiation to the recovery and analysis of cobalt and copper will be presented.

43. Developing a Database to Understand Cannabis Compliance and Quantifying California's Certified Testing Labs Preliminary Results

Nikko Mills, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

The purpose of this research was to develop an understanding of the cannabis testing regulations in the state of California. Research was conducted identifying all Certified Cannabis Testing Labs currently doing product tests. We hoped to understand what these labs were discovering in their product safety tests. Because this was the first year of regulated certification and testing the research conducted was meant to create a baseline standard from which we can judge future years' progress against. This research will also hopefully be able to be utilized by growers in the future to find out which contaminants are most common and thus identify suitable alternatives to increase compliance.

44. Development and Psychometric Properties of the Mobile Device Dependency Scale

Helena Littman, Psychology, Undergraduate Student
Carolyn Monette , Psychology, Undergraduate Student
Melissa Cisneros, Psychology, Undergraduate Student

College of Professional Studies

Communication through cell phones is increasingly prevalent in our society and places individuals at risk of developing a mobile device dependency (Salehan, & Negahban, 2013). The purpose of this study is to develop a measure of psychological and social dependence on mobile communication. Also, this research aims to provide reliability and validity of the Mobile Device Dependency Scale (MDDS). Participants completed four self-report surveys that showed high reliability and validity of the MDDS. This scale may provide valuable information about dependency in regard to technological advancements and the societal pressures associated with device usage.

45. Digitizing Stratigraphic Maps

Lily Camara, Anthropology, Undergraduate Student
Marisa Bazaldua, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project is aimed at digitizing hand-drawn stratigraphic maps of excavations from the Dos Hombres to Gran Cacao (DH2GC) archaeological project in northwestern Belize. Archaeological illustration is a form of technical illustration that graphically records material derived from an archaeological context. Illustration is a powerful medium for disseminating knowledge, as it demonstrates the excavation process and captures history as it is unearthed. We use Adobe Illustrator CS3 software for the digitization process. Finished maps are used in the annual report for the Institute of Archaeology (IoA) in Belize.

46. Does Juvenile Life History Affect the Marine Survival Rate of Coho Salmon?

Grace Ghrist, Fisheries Biology, Graduate Student

College of Natural Resources & Sciences

I created a full life cycle model for Coho Salmon in Freshwater Creek in an effort to estimate separate overwinter and marine survival rates for two distinct juvenile life history strategies.

47. Dymaxion Projection

Brian Murphy, ESM: Geospatial Science, Undergraduate Student
Gilbert Trejo, Geography, Undergraduate Student
Erika Granadino, ESM: Policy and Management

College of Natural Resources & Sciences

An exploration of various spatial phenomena using the Dymaxion Projection (aka Fuller Projection).

48. Effects of Lethal Giant Larvae 1 on Murine Neural Progenitor Cell Differentiation

Logan Bailey, Biological Sciences, Undergraduate Student

College of Natural Resources & Sciences

Using Immunocytochemistry to analyze the expression of differentiation markers in mouse neural progenitor cells. Comparisons are made between wild type cells and Lgl -/- cells to view differences in their differentiation potential and analyze some of the potential impacts of the Lgl1 gene or its absence.

49. Effects of Ladder Training on Sprint and Change of Direction Performance

Trevor Short, Kinesiology, Graduate Student

College of Professional Studies

Ladder training is a form of multidirectional lower limb plyometric training utilized by coaches and athletes in a variety of sports. Researchers have not examined how ladder training improves sprint and COD performance. The addition of 4 weeks of LT to a conventional pre-season strength and conditioning program seems to represent a time-efficient stimulus for improvement in sprint performance, stride frequency, and ground contact time. LT should be implemented as a warm up or neural priming exercise. These findings offer practitioners and athletes the ability to improve performance and induce kinematic adaptations at a desired period within the macrocycle.

50. Effects of the election of President Trump on the political dynamic of Humboldt State University

Aislin Edalgo, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This research is on the political dynamic of the Humboldt State University community. Specifically, of the course of the past year and a half I have been conducting three separate ethnography projects focusing on the effects of the election of President Trump, the origin of political beliefs and cultural policing of political speech acts. This research was conducted using participant observation, interviewing, surveying, and observation, with individuals involved being both students and instructors at HSU. This research has the ability to give a greater understanding into the political dynamic of HSU and the beliefs of its community members.

51. Efficacy of Variable Density Thinning at Redwood National Park

Kevin Soland, Forestry, Undergraduate Student
Meagan Burger, Forestry, Undergraduate Student
Sonnette Russell, Forestry, Undergraduate Student
Tyler Dunlap, Forestry, Undergraduate Student

College of Natural Resources & Sciences

Our group's senior thesis investigated the physiological and water potential responses of redwood and tanoak trees to various thinning treatments that occurred during the Summer of 2017 in Redwood National Park. We selected 47 individual study trees among five

different thinning intensities (No cut, 25%, 40%, 55%, and 75%) across three 1-hectare fixed-area plots. Our initial findings indicate a certain sweet spot which the trees seem to favor. Stop by our booth to learn more!

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52. Energy Production and Profiling of Arizona, California, New Mexico, & Texas

Kassandra Weber, Physics and Astronomy, Undergraduate Student
Jacqueline Gomez, Mathematics, Undergraduate Student
Christina Alvarez, Cellular Molecular Biology, Undergraduate Student

College of Natural Resources & Sciences

The states bordering the US and Mexico are very diverse. California, Arizona, New Mexico and Texas each have different factors influencing the way they continue to advance. The past 50 years have experienced a large shift in technology as well as accessibility to renewable energy. In this project, we constructed energy profiles for each state, along with analysis based off of their unique aspects. Based on this analysis, we determined the state with the best quality profile and provided predictions for their energy usage in the years 2025 and 2050.

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53. Environmental Impacts of the Homeless Population in Humboldt County

Jennifer Mara Arvizu, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

There are many attempts to resolve the homelessness problem in Humboldt County, but most have been unsuccessful, and they have not properly assessed the environmental impact that has been a result of human habitation in urban areas, particularly within riparian zones. Because homeless individuals are not considered within the traditional census boundaries, there isn't reliable population statistics and the estimates vary widely. Within this research, I will examine environmental and socio-economic relationships within homeless population, including societal cost and environmental destruction.

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54. Environmentalist of the Future

Joseph Kleist, Environmental Studies, Undergraduate Student
Jonathan Gomez, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

The Humboldt County office of education (in partnership with HSU students is preparing) the environmentalist of the future by integrating their Classroom Aquarium Education Program with their Redwood Edventure Program in an effort to educate K-12 students on the value of aquatic environments. Their lessons speak to the balance that must be met to maintain and preserve California's fisheries and habitats and actively engage students to get up and out into their local environments where they can then see how our personal actions affect valuable resources.

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55. Epiphyte Diversity and Distribution in an Old Growth Sitka Spruce Crown

Alexander Gorman, Forestry and Wildland Resources, Undergraduate Student

College of Natural Resources & Sciences

Various epiphytes such as lichens, mosses, leafy liverworts, and ferns are known to inhabit the crowns and boles of old-growth conifers and hardwoods. This study looks at the diversity and distribution of epiphytes on a single old-growth Sitka spruce tree. Data were analyzed to test for significant relationships between species richness, abundance, height distribution, and substrate type.

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56. Evaluation of the Scholars Without Borders' (SWB) Undocumented Students Ally Training (USAT)

Cesar G. Abarca, Social Work, Faculty
Ruby Aguirre, Social Work, Graduate Student

College of Professional Studies

As a Hispanic Serving Institution (HSI), HSU lacked a project which served its Undocumented. DACAmented and AB 540 students. Due to the need for staff, faculty and administrators to learn how to better serve this group of students, the student group Funding Resources and Empowerment through Education (F.R.E.E.) organized and advocated for many years to create a student support program. The result was the creation of the Undocumented Students Ally Training (USAT) in 2015 and Scholars Without Borders (SWB) in 2016. The purpose of the program evaluation of USAT was to measure the impact of the training on students, faculty and staff members who participated in the training.

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57. Everglades in Peril

Kelsey Benson, Environmental Science and Management - Environmental Education and Interpretation, Undergraduate Student

College of Natural Resources & Sciences

This project is an interpretive panel designed to highlight some of the effects of climate change on the Florida Everglades. Multiple consequences have risen, many of which are reflected through decreases in the populations of a number of key species that make up the Everglades ecosystem. In this panel, I selected just some of these devastating effects to help bring light to the horrors that this ecosystem is experiencing. The goal of this panel is to both inform the public about the issues we are facing from the effects of sea level rise, as well as inspire them to want to take actions that could make a difference.

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58. Every Body Humboldt

Nich Graham, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Becoming a 501(c)(3) under the Ink Peoples Dream Makers project, Every Body Humboldt aims to create accessible safer spaces for participants to learn skills and tools for regulating stress, healing trauma, making healthy social connections and creating new patterns.

We're currently working to eliminate economic, physical ability, and social barriers to learning these tools. Every Body Humboldt is working with folks at Humboldt County Correctional Facilities, with the general public at Om Shala Yoga, and Synapsis Nova, with intentions to work with drug courts here as well. I will be sharing some tools and literature for folks, while showing what is currently going on, our mission, and goals.

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59. Examining the role of the ADCY5 point mutation p.R418W on cellular cAMP levels and how cAMP affects neuronal differentiation of murine stem cells

Elizabeth Zepeda, Biological Sciences, Graduate Student

College of Natural Resources & Sciences

ADCY5-related Dyskinesia is a rare movement disorder, with early onset in childhood and adolescence. Previous studies have linked this disease to various point mutations in the ADCY5 gene. One study has demonstrated two of these mutations cause an increase in cyclic adenosine monophosphate (cAMP). However, the molecular basis of this disease phenotype has yet to be fully understood. Our study seeks to characterize the effects of one specific point mutation, p.R418W, on cellular cAMP levels using HEK293T cells, and to determine if increased cAMP levels affect neuronal differentiation using mouse embryonic stem cells (mESCs).

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60. Exploring Environmental Justice with Girl Scouts

Giuliana Sarto, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

For my service-learning project, I've teamed up with the Girl Scouts of Northern California to teach about environmental justice and the connections between social and environmental issues. The project aims to empower these brilliant young girls to take action locally and advocate for environmental justice. My presentation will summarize my experience working with girl scouts among different age groups, as the girls connect with each other to create community outlets for activism.

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61. Farmworkers unions in CA

Ariana Urrea, History, Undergraduate Student

College of Arts, Humanities & Social Sciences

The poster will be on a research project I am currently working on involving the legacy of farmwork in California and their lack of support in regards to forming labor unions.

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62. Fixed and Growth Mindset Shift Through Primed Short-Term Interventions

Ana Beltran-Castillo, Psychology, Undergraduate Student
Caitlin Mace, Psychology, Undergraduate Student
Zach Hufft, Psychology, Undergraduate Student

College of Professional Studies

There is more that differentiates students who succeed in school from those who do not, and focusing on differences in IQ will yield little to no knowledge about why some succeed and others fall behind. Research on growth and fixed mindset has shown that the way students perceive their intelligence, skills, and/or abilities has the potential to impact their academic performance (Dweck, 2006) . This study investigates the immediate impact of being presented with fixed or growth mindset information and uses time spent on problem questions as a measure of mindset.

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63. Fluidity of Fragility: Modeling the Effect of Climate Change on State Fragility

Hahn Archibald, Math, Undergraduate Student
Olivia Helprin, Geology, Undergraduate Student
Jared Walbert, Geology, Undergraduate Student

College of Natural Resources & Sciences

Summary of a mathematical modeling contest submission investigating the impact that climate change bears upon state fragility index, as defined by the Fund for Peace. Parameters used in this model include total annual precipitation and percentage of water made available to rural populations over a span of 24 years. From our model, we find that states that are fragile and vulnerable will be affected by climate change.

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64. Food Insecurity Impacts Multiple Domains of Students' Life

Brandi L. Goodspeed, Psychology, Graduate Student
Nena N. McGath, Psychology, Graduate Student
Carolina K. Gonzalez-Estolano, Psychology, Undergraduate Student
Jennifer Maguire, Social Work, Faculty
Christopher L. Aberson, Psychology, Faculty

College of Professional Studies

Research suggests associations between food insecurity and poor mental health outcomes such as anxiety, depression, stress, and disruptions in social and emotional development (e.g., Knowles et al., 2015). The current study examined relationships between food security and mental health outcomes among 1,415 college students. We hypothesized that greater food insecurity would be related to more personal problems, academic concerns, lower GPA, and greater instances of poor mental health. The present study found that food insecurity related to negative impacts across students personal and academic lives. These results suggest that food insecurity may be a barrier to academic success.

65. Forest Education and Upkeep

Caitlin Ehnow, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

I have been helping Redwood State Parks with trail maintenance, removal of invasive species, and interpretive hikes through Patrick's Point's native plant garden. The goal of this work is to help maintain forests and trails, and educate the public about the botanical features of the region. I have also helped a biologist map plant diversity in various parts of Little River State Beach. The goal was to detect differences in areas that were both disturbed and undisturbed. I hope to contribute to the upkeep of Redwood State Parks in a meaningful way, as well as inspire others to see the importance and beauty of the natural world.

66. Fortuna Firefighting

Robert Johnson, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

For my research project, I engaged in volunteer work for the Fortuna Firefighting Department. To fully engage myself into the lens of a firefighter, I signed up for the full academy and will earn fire fighter I status. This entails firefighter ethics and expectations, safety, communications, tools and equipment, water supply and hose lays, fire behavior, building construction, ventilation, loss control, rescue and extrication, and wildland fires. The firefighter code is to save lives, protect the environment, and protect property. With doing so, firefighters continuously adjust to diversity, personal characteristics, personal responsibility, and resistance to change.

67. Fostering Preparedness: Service Learning with the Red Cross

Nicole Goodin, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Community preparedness for extreme geophysical events (floods, wildfires, etc.) is essential, especially since such events are projected to increase in terms of frequency and intensity due to climate change. For my spring 2018 capstone project I have partnered with the Red Cross to engage with their local preparedness programs. Our collaboration has allowed me to apply my GIS skills and participate in mapping their supply trailers and shelter locations, which I will overlay with additional data such as flood zones, wildfire prone areas, etc. The maps I will complete throughout the semester will provide insight regarding possible emergency scenarios and contribute to their effective planning.

68. Free Weight Bench Press Muscular Fitness Normative Data for Adults Aged 20-29 Years

Young Sub Kwon, Kinesiology, Faculty
Nathan Tamayo, Kinesiology, Graduate Student
Andrew Hahn, Kinesiology, Graduate Student

College of Professional Studies

The free weight bench press test is one of the most convenient tests used to evaluate muscular fitness and the effectiveness of resistance training programs for a variety of sports. However, its use and interpretation as an evaluative measurement for health-related physical fitness tests are limited because there are few published reference values derived for the general population. Therefore, the aims of the present study were to generate normative values for free weight bench press 1 repetition maximal (RM) and 4 sets of 65% of 1RM training volume (total repetitions x resistance) for 20- to 29-year-olds for men and women.

69. Freedom of Shirtspression

Camille Dionisio, Communication, Undergraduate Student
Adam Hayes, Communication, Undergraduate Student
DaMon Thomas, Communication, Undergraduate Student

College of Arts, Humanities & Social Sciences

For our project, we each individually chose a Supreme Court case. We chose a specific case, turned it into a t-shirt design, and then brought it to life with our own twist to create a contemporary representation. Our research in turn, has given us our own freedom to express what we believe about certain issues.

Adam looked at Cohen vs California, Camille looked at Tinker vs. Des Moines and DaMon looked at Morse vs Fredrick. We combined our ideas and experiences dealing with Freedom of Expression to summarize what we learned in the class and applied them to our t-shirts and current issues. "Don't Stress, Freely Express." Website: http://ash3852.wixsite.com/shirtspression

70. Friendship Circles Curriculum for Blue Lake Community Resource Center

Emily Agredano, Social Work, Graduate Student

College of Professional Studies

The Blue Lake Community Resource Center (BLCRC) was approached by Blue Lake Elementary School with a request to facilitate friendship circle-type peer support groups for its students. The BLCRC Coordinator, citing a lack of a formal curriculum/training manual for use by its AmeriCorp worker in the facilitation of these groups, asked for a curriculum manual to be used as a guide for future years' programs. The curriculum will be designed to align with the cultural and social makeup of this rural community with a focus on developing positive self images and social skills for girls in grades 4 through 6.

71. From Plants to Portola: Geovisualization of the Pre-Colonial California Coast, Derived from Paleobotanical Data and Spanish Journals

Ryan Reger, Geography, Undergraduate Student
Andrew Gibbs, Geography, Undergraduate Student
Dr. Chelsea Teale, Geography, Faculty
Nicholas Perdue, Geography, Faculty

College of Arts, Humanities & Social Sciences

This Geovisualization takes a broad look at the California Coast in a precolonial context including native plants, and land management practices used by the Ohlone tribe, in part by referencing Spanish

journals from the Portola expedition, and in part by referencing existing Paleobotanical data. The location of primary interest is present day Pillar Point, just north of Half Moon Bay, from which Doctor Teale has previously collected Paleo-environmental data.

72. Gender, Sexuality and Crime in the Queer Life Course

Meredith Williams, Sociology, Faculty
Joice Chang, Politics, Faculty
Isaac Torres, Sociology, Graduate Student
Rachel Deckard, Sociology, Undergraduate Student
Jennifer Garcia, Sociology, Undergraduate Student
Alexandria Koontz, Sociology, Undergraduate Student
Emily Policarpo, Sociology, Undergraduate Student
Cesar Ramirez, Sociology, Undergraduate Student
Ashley Warr, Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

In this study, we look at the offending of lesbian, gay, bisexual, transgender and queer (LGBTQ) individuals over their life course. Growing research on criminal offenses finds LGB individuals offend more often than heterosexual individuals, due to different experiences within social institutions like family and school, but very little criminological research that includes transgender or gender non-conforming individuals as offenders. We aim to gather information about LGBTQ individuals' experiences in social institutions, across the stages of their life course, to illuminate experiences that act as turning points in the queer life course toward and/or away from involvement in crime.

73. Graphene Batteries: A Step Toward More Efficient Energy Storage

Mustafa Khan, Politics, Undergraduate Student

College of Arts, Humanities & Social Sciences

The basis of this research consists of the use of graphene and supercapacitor energy storage as a more energy efficient and environmentally conscious alternative to traditional lithium ion batteries. This will also cover the government policies that could potentially fund the research, development, and integration of graphene based supercapacitors in the energy market. This energy market currently includes standard fossil fuel based energy as well as renewable energy sources such as solar and wind. Although renewable energy options have grown in popularity and commercial availability, the main issue with these sources is storage, and graphene based batteries could remedy this problem.

74. Grow Gardens not Grass

Katrina Salinas, EnvironmentalStudies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My Environmental Studies Capstone experience has been through service learning at the Pacific Union Garden Project. Through this service learning I have partnered with a variety of elementary aged children and teachers to incorporate environmental education in a garden setting. The use of rainwater catchment systems, compost and worm bins have been used to educate children on the importance of water, soils, and the regenerative cycle of life. This project will show how children interact and gain skills in a garden and why school gardens are important to children's education as a starting point for environmental education inspiration.

75. Helena Fire Burn Severity and Effects on Vegetation

Michael Pilatti, Forestry, Undergraduate Student
Frederique M. Guezille, Forestry Undergraduate Student
Sonnette Russell, Forestry, Undergraduate Student
Buddhika Madurapperuma, Forestry, Faculty

College of Natural Resources & Sciences

The Helena fire occured August 30th–November 15th as a consequence of a power line contacting a tree limb on Bureau of Land Management public lands and spread to Trinity Alps Wilderness and Weaverville in Trinity County, California. This study examines before and after effects of this devastating fire using the Burn Index (BI) and Normalized Difference Vegetation Index (NDVI) using Landsat 8 images and ENVI and ArcGIS software. Burn severity acreage was calculated within fire State Responsibility Areas (SAR) and the results summarized using high, moderate and very high burn categories. The BI showed a 61% area effected by wildfire resulting in a 53% NDVI decrease within Helena fire SAR.

76. History of the Book: Digital Exhibits Featuring the HSU Rare Books Collection

Heather Madar, Art, Faculty
Chia Chen, Art, Undergraduate Student
Mary Bone, Art, Undergraduate Student

College of Arts, Humanities & Social Sciences

Students from Heather Madar's Art 301M: History of the Book class will present their digital exhibits. These exhibits showcase materials from the HSU Library's Rare Book collections. Mary Bone's exhibit uses a comparative framework to explore music and song books from the collection and examines them in light of their cultures of origin and use. Chia Chen's exhibit takes a close look at a book that features a set of the 1957 remake of Debucourt's fashion plates from 1789-1808. Originally published in women's fashion journals, these plates modeled late 18th century Parisian clothing styles and also display contemporary manners and customs.

77. How ENST Shaped My Way Of Thinking and Why I Chose To Be a Healthcare Professional Instead

Sarah Denise Reyes, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project focuses on the healthcare industry and how the healthcare industrial complex can quickly be co-opted as a business interest.

78. How Human Migration Responds to Climate Change in 2030

Paul Hilton, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

Using data showing a two degree rise in global temperatures by 2030, this project combines projections of food sustainability, damage assessments of flood-prone areas, and global water level rises to locate human migratory routes with critically altered rates of human migration in relation to estimates maintaining current global temperatures.

79. How is China's influence growing in Latin America and Sub-Saharan Africa?

Lily E O'Connell, Global Politics, Undergraduate Student
Fabian Cuevas, Politics, Undergraduate Student

College of Arts, Humanities & Social Sciences

How China's influence has expanded in both Latin America and Sub-Saharan Africa- through state ran investment. Comparing the US's economic influence and involvement to China's in both of these regions. A brief history of Chinese investment abroad, and revealing some of the negative and positive externalities of Chinese investors in recipient states.

80. How the Refugee Crisis Is Challenging Dominant Institutions

Averie Middleton, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

Can the EU and UN survive a challenge to their legitimacy in regards to how each are handling the current refugee crisis. This poster will ask and answer the questions, is the UN effective and democratic, how is the UN handling this crises and how does the security council play a role in this ongoing human rights violation. The next questions are about the EU and how effective is it, is it democratic, how is it handling the crises and what is the comparison between the eastern EU countries and the western EU countries and their viewpoints on refugees. How does the EU and UN compare and contrast and the concluding question, can these dominant institutions survive?

81. HSU Radical Leadership Development Project (RLDP)

Cesar G. Abarca, Social Work, Faculty
Ruby Aguirre, Social Work, Graduate Student

College of Professional Studies

The Radical Leadership Developement is a research and curriculum project aimed to assist these, and other groups, in adopting a leadership program based on the interview of 23 HSU students leaders during the academic year 2016-2017. Based on in-depth, face-to-face interview, the researchers developed a 12 week leadership program aimed at students . The purpose of the project was two-fold: (1) to learn from students leaders which leadership skills and knowledge helped the most while participating in social, cultural and political activities while attending HSU; and (2) to develop a 12-week curriculum to develop the next generation of students leaders.

82. Humboldt County Sanctuary Initiative

Kevin Olmar Martinez, Political Science, Undergraduate Student
Crystal Rosales, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

Centro Del Pueblo was created in response to the wave of anti immigration rhetoric and the increase of ICE raids in Humboldt County. The organization advocates for immigrant rights, organizing rallies, marches and most recently pushing its own initiative for sanctuary in Humboldt County. The initiative itself won't violate SB54 in anyway or violate the U.S. Constitution, what it will do is add extra layers of protection for the undocumented community from being persecuted by ICE, and promoting a safer community between the county and the immigrant community.

83. Humboldt County's Opiod Epidemic

Hannah Politzer, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

I will be using the information I have gathered through my internship with California Senator Mike McGuire. Specifically, the Senator has an ongoing project having to do with the opioid crisis taking place in Humboldt County. Humboldt County has more opioid prescriptions than residents. With 156,444 prescriptions in 2016, the rate was nearly 1,145 prescriptions per 1,000 residents. Senator Mike McGuire has hosted two town hall forums to bring awareness to the community and to discuss solutions in order to fix this epidemic that is affecting so many lives in the community we reside in.

84. In My Neighborhood: Local News Coverage of David Josiah Lawson's Murder

Moxie Alvarnaz, Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This content analysis examines racial discourse in local online news coverage pertaining to the murder of David Josiah Lawson and subsequent, related events. This research utilizes a grounded methods approach to find common racial frameworks and patterns in coverage.

85. Incorporating Cultural Activities Within A Residential Substance Use Disorder Treatment Facility in Humboldt County, California

Arlette Large, Social Work, Graduate Student

College of Professional Studies

Humboldt County, California is comprised of Indigenous tribal lands. The county has no residential substance use treatment program to meet the needs of the Indigenous Community. The purpose of this project is to implement Indigenous practices within the residential substance use treatment program. The following healing activities will be incorporated into the treatment program, both on and off-site. Red Roads will be offered to individuals once a week on site. Gender appropriate talking circles while beading will be offered on-site weekly. Individuals will have the opportunity to sweat twice a month, off-site.

86. Instilling Text and Subtext

Isabella Ceja, Theatre Arts and Communication, Undergraduate Student

College of Arts, Humanities & Social Sciences

Costume designs by Isabella Ceja for the dance piece choreographed by Lisa Drew: Instilling text and Subtext. The dance was inspired by media bias and the distorted reality it creates, as well as the media propaganda that had occurred during WWII.

87. Intergroup Compensations for Attributes of Warmth and Competence

Helena Littman, Psychology, Undergraduate Student
Olivia Kulijian, Psychology, Graduate Student
Natasha La Vogue, Psychology, Graduate Student
Amber Gaffney, Psychology, Faculty
Joseph Wagoner, Psychology, Faculty

College of Professional Studies

People use perceptions of warmth and competence as fundamental features in making decisions about others (Fiske, Cuddy, Glick, & Xu, 2002). Participants were told that they were part of a high status group and then rated either a high status in-group or lower status out-group along dimensions of warmth, competence, and perceived threat. Results show that high status participants view their in-group as high in competence and low in warmth, while perceiving the out-group as low in competence and high in warmth. These findings suggest that compensation in an inter-group setting operates according to distinctiveness rather than general positive ratings for the in-group on all dimensions.

88. Internship work with County Supervisor Mike Wilson

Blake Boyer, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

The presentation will be on various topics researched for the county supervisor, ie local gun control laws, biodegradable shotgun wads, California granges, and the research and dissemination process of gathering information and presenting the information to the county supervisor. Each topic will receive time and space, but the presentation will focus on the internship instead of the topics.

89. Invasive Plant Species

Catharine Rees, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My service learning project involves the removal of invasive plant species in Humboldt County. A large portion of this project will be the removal of invasive plants within the Native Plant Garden at Patrick's Point State Park. Along with other enhancements of the Native Plant Garden, such as, the implementation of interpretive signs and the chipping of pathways for easier accessibility. This project will also encompass the removal of invasive plants in other areas along Trinidad State Beach.

90. Investigating the Heterogeneous Catalysis of Volatile Organic Compounds by Environmental Metal Oxides

Jesus Rincon, Environmental Resources Engineering, Undergraduate Student
Terry Franklin, Environmental Resources Engineering, Undergraduate Student

College of Natural Resources & Sciences

Environmental metal oxides have multiple chemical interactions with natural and anthropogenic organics in the atmosphere. Volatile organic compounds (VOC) and pollutants such as; pesticides, fertilizers, and nitrates are introduced to the atmosphere through similar means as well as incomplete combustion from vehicles and industrial processes. Metal oxides like titanium (IV) oxide, TiO2, have photocatalytic effects that can further oxidize VOC and other adsorbed species. Acetone is a frequently measured VOC in the atmosphere. In our research we study how acetone and other organic species adsorb onto TiO2 and react catalytically in the presence of atmospheric oxidants such as ozone.

91. Juvenile Coho Salmon Life History Variants in Humboldt Bay Tributaries

Madison Halloran, Fisheries Biology, Graduate Student
Darren Ward, Fisheries Biology, Faculty

College of Natural Resources & Sciences

We are assessing movement of juvenile Coho and adult straying among Freshwater Creek and two other Humboldt Bay tributaries using PIT tags and mark-recapture multi-state modeling. As salmon habitat becomes more fragmented through human actions, the need to better understand interactions between connected salmonid populations only grows. This research will focus on quantifying the frequency of juvenile dispersal between nearby watersheds to evaluate the need for changes in both management and monitoring. If there is significant movement between these watersheds, effective management and monitoring strategies of Freshwater Creek may need to be expanded to include nearby streams.

92. Kink Representation Outreach Project (KROP)

Elizabeth Lapple, Psychology, Undergraduate Student
Tsolak Michael Kirakosyan, Undergraduate Student
Jessica Fox, Undergraduate Student
Miles Ruvalcaba, Undergraduate Student
Candace Young, Undergraduate Student
Danielle Siegel, Undergraduate Student
Sarah Butler, Faculty
Benjamin Graham, Undergraduate Student

College of Professional Studies

Contemporary research does not support psychology, & historical framing of Bondage/discipline, dominance and submission, sadomasochism (BDSM) as a pathology. Multiple studies have suggested that supportive BDSM communities can play a positive role for people who practice BDSM. Drawing on these finding, this study consisted of a content analysis of top-selling human sexuality textbooks in the U.S. to determine the representation of BDSM. In

particular, we explored how references to community experience were or were not represented. This poster reflects the importance of critically analyzing the influence of dominant narratives, social norms, and stigma in human sexuality textbooks.

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93. Kombucha: A Chemical Investigation

Austin Ranck-Buhr, Physics and Chemistry, Undergraduate Student
Frank Cappuccio, Chemistry, Faculty

College of Natural Resources & Sciences

Kombucha is a popular drink which has been consumed for centuries. Its chemical properties and usefulness have only recently been investigated by scientists. In our research, we aim to add valuable data to the kombucha fermentation reaction, and find novel uses for the various products of the fermentation.

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94. Language Use for the Next Fifty Years

Erik Knutsen, Mathematics, Undergraduate Student
Jeremy Johnson, Mathematics/ Physics, Undergraduate Student
Gabriela Martinez, Mathematics/ Physics, Undergraduate Student

College of Natural Resources & Sciences

There are approximately 6,900 languages spoken around the world today. Of those, there are ten languages deemed most widely spoken by humans. Due to the trends in globalization, it is important for companies that exist internationally to take into consideration language trends. In this research performed as part of the international contest in modeling, we seek to predict the future top ten languages based on the generalized Abrams-Strogatz model of language competition.

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95. Learning in a classroom setting: Audio, Visual, or Audiovisual Learning, which is best for recall?

Cassady McLaughlin, Psychology, Graduate Student
Summer Thornfeldt, Psychology, Graduate Student
Zhelin Wu, Psychology, Graduate Student
Caitlin Mace, Psychology, Undergraduate Student
Valerie Settani, Psychology, Undergraduate Student
Mitchell Hinman, Psychology, Undergraduate Student

College of Arts, Humanities & Social Sciences

Students are impacted by differential modes of stimuli presentation while learning in multimedia environments. In the classroom, lecturers often display written text that corresponds with their spoken instruction, but how are students impacted by this? This study aims to address how visual (text), auditory, and pictorial stimuli in isolation or combination pertaining to the same novel subject affect recall accuracy. A cross-sectional between-subjects design was utilized in the study, and we found that students did better on recall questions when they were either taught with auditory, textual and pictorial information, or taught with auditory and pictorial information.

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96. Learning the Ways of the Force

Michael Juette, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

Within any county there are economic forces that are constantly at odds with each other, and Humboldt County is no exception. Currently, it has been recognized that the skills in some of Humboldt County, & workforce are struggling to keep up with what is expected by employers. The goal of this project is to assess the needs of these potential employers, demonstrate how employers are coping with the issue, and to explore possible avenues that may improve the relationship between the potential employers' and employees' recruitment experience. It is the hope that informing the public of this issue may lend a hand in improving workforce readiness in Humboldt County.

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97. LEEROY JENKINS: Identity Formation, Investment, and Social Structure of Guilds in World of Warcraft

Rachael Heller, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

World of Warcraft is a story-based fantasy adventure massively multiplayer online role-playing game in which players customize characters and play through game content individually or in a group. Guilds in WoW are semi-permanent groups of players that come together with a common in-game agenda. Through participant observation and interviews, this project studies one guild within WoW, focusing on personal and group identity formation, and the relationship between perceived value and monetary/time investment. Examination of these topics builds reality within a fictional, virtual setting, and seeks to provide insight into the formation of structured subgroups within a larger society.

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98. Lesson Study Across Waters

Shelbie Christensen, Chemistry, Undergraduate Student

College of Professional Studies

Humboldt State University (HSU) students participated in the first part of an international lesson study by developing and implementing curriculum about climate change. Together with Swiss students from Haute Ecole Pédagogique du Canton de Vaud (HEP), ideas of pedagogy were shared while developing, deploying, and revising an engaging lesson plan. With the goal to better understand lesson development and successful teaching strategies in the classroom, the students are to repeat this process at least three more times in Switzerland.

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99. Load Forecasting in Humboldt County

Nora Graham, Mathmatics, Undergraduate Student
Kabao Yang, Mathmatics, Undergraduate Student
Jack Eicher, Mathmatics, Undergraduate Student

The objective of our project is the prediction of the electric power usage in Humboldt County in 2017. Load is the amount of power that is being drawn from the electrical grid due to consumer, industrial, and governmental practices. Forecasting load is used to predict

future electrical power that is required to meet the short term or long term demand. We have created a linear regression analysis with a moving window to predict energy use for the next hour. Our work is a mathematical model that uses past data to achieve an efficient strategy for forecasting electricity loads.

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100. Map of wildfire severity of the Santa Rosa: CA 2017

John Cortenbach, Environmental Science and Management, Undergraduate Student
Richard Williams, Environmental Resources Engineering, Undergraduate Student
Buddhika Madurapperuma, Forestry and Wildland Resources/ Environmental Science and Management, Faculty

College of Natural Resources & Sciences

This study examines the Santa Rosa fire in 2017 using remote sensing techniques to estimate the acreage of burned areas. Landsat 8 imagery of the pre- and post- fires were used to extrapolate the burn severity using two methods: (i) Normalized Burn Ratio (dNBR) and (ii) change detection analysis. The results of burn severity of both methods were on average 24% under-approximated comparison to values supplied by Cal Fire. While comparing acreage burn, provided by CAL FIRE indicates that our results were on average 76% –48% accuracy in identifying burn severity. Of the two methods, the change detection using iso clustered unsupervised classification scheme was more accurate.

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101. Mapping the Ancient Maya "Landscape" A GIS approach to identify undocumented archaeological structures in Northwestern Belize

Jeremy McFarland, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project presents a unique approach to mapping the Maya landscape of Northwestern Belize. The basis of the research will explore various GIS and cartographic techniques to manipulate and visualize geospatial data to map and produce a model to assist with predictive site survey of archaeological structures. As a result of this research, various images of relief visualization will be produced to help with pre-field planning for the summer 2018 field season. This project is part of the Dos Hombres to Gran Cacao Archaeology Project (DH2GC) led by Dr. Marisol Cortes-Rincon at Humboldt State University.

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102. Mapping the Northcoast Environmental Center Adopt-A-Beach Program "Clean Beaches, Clean Water"

Emmaline Trockey, Internship, Undergraduate Student

College of Natural Resources & Sciences

For my internship I have been working with the Northcoast Environmental Center to use geospatial analysis and cartography to map their Adopt-A-Beach program. For my poster I would like to display the process and final outcome of the work I have been doing.

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103. Measuring a Nations Fragility in Relation to Climate Change

Jessica Solomon, Environmental Science and Management, Undergraduate Student
Amanda Donaldson, Geology, Undergraduate Student
Christina Herring, Mathematics, Undergraduate Student

College of Natural Resources & Sciences

Concluding the 21st century, changing atmospheric processes will alter regional resource availability increasing a nation's fragility. To examine the interconnected nature among socioeconomic structures and ecosystem services, a model was developed that measures a nation's fragility in six categories: political, economic, social, agriculture, water resources, and culture. The model was then applied to the 10th most fragile nation, The Republic of Iraq, and the 158th most fragile nation, The United States of America. The United States will too experience great changes in the environment, but accessibility to mitigate greatly reduces their progression to a fragile state in contrast to Iraq.

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104. Method for Direct Catalytic Spectrophotometric Determination of Iron by Flow Injection Analysis

Emilia J McCann, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

A sensitive flow injection (FI) system for determining dissolved iron concentrations involved a complex manifold: peristaltic pump, two electronically actuated 6-port, 2-postion injection valves, UV-Vis spectrophotometer and a desktop computer controlled by a software program for data acquisition. The FI method allows for direct preconcentration of iron in samples at trace metal nanomolar concentrations using the catalytic colorimetric indicator N, N-dimethyl-p-phenylenediamine dihydrochloride. Toyopearl AF-Chelate-650M chelating resin is used to remove the need for sample treatments before preconcentrating and eliminate interferences from iron binding to organic ligands in the sample matrix.

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105. Methodology for in situ DRIFTS Measurements of Atmospheric Heterogeneous Processes

Emilia J McCann, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

Diffuse Reflectance Infrared Fourier Transform Spectroscopy (DRIFTS) is a form of infrared spectroscopy specific to analyzing powder solids. The DRIFTS apparatus contains a controlled environment in vacuum or atmospheric pressure conditions. Heterogeneous interactions of gas-solid samples in the DRIFTS cell allow for in situ measurements under a variety of environmental conditions to characterize functional groups and structural evolution during the process of a chemical reaction. Experiments studied the effect of acetone adsorption on Titanium dioxide (TiO2) surface for oxidation reactions on the surface.

106. Modification of Turbulent Pipe Flow Equations to Estimate the Vertical Velocity Profiles Under Woody Debris Jams

Ahron Cervania, Environmental Resources Engineering, Undergraduate Student

College of Natural Resources & Sciences

Large woody debris (LWD) in rivers can increase fish and macroinvertebrate habitat, but also increases the risk of flooding and reduces channel navigability. This research aims to better understand the river hydraulics associated with LWD in order to find a balance between the beneficial and detrimental effects. By modifying equations of turbulent pipe flow, we attempt to estimate the vertical velocity profile of flow under LWD jams and compare the estimated profile to measured profiles from flume-simulated LWD jams.

107. Monitoring the Gonadal Maturation of Steelhead and Cutthroat Trout using Ultrasonic Imaging

Jasmine Iniguez, Fisheries Biology, Undergraduate Student

College of Natural Resources & Sciences

Ultrasonography is a versatile and noninvasive method that can be used to examine the internal anatomy, gonadal maturation, and the reproductive status of various freshwater and marine fishes. The goal of our study is to examine the feasibility of using ultrasound images to sex and determine oocyte maturation for Steelhead (Oncorhynchus mykiss) and Cutthroat Trout (O. clarkii) at the Humboldt State University Fish Hatchery. The objectives were to: (1) determine the most applicable control setting, (2) differentiate between a male and female, and (3) monitor oocyte maturation using ultrasound images. We were able to successfully identify the sex and determine gonadal maturation of fish.

108. More Than a Store: Culture and Food in Hoopa Valley

Luke Tygar McCarthy, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

The purpose of this research is to attempt to enhance the sense of culture and place in the interior design of the Hoopa Grocery Store that is currently in the planning process and is to be completed by this summer in Hoopa, CA. This is part of my senior capstone service learning project in support of Greenway Partners, a local project management firm, and their work with the Hoopa Valley Tribe. I am using a combination of historical imagery, Google Earth imagery, contemporary photos, Hupa tribal patterns and language, and maps to incorporate the unique and authentic sense of place of Hoopa Valley into the store as a symbol of the culture revitalization and survivance of the Hupa people.

109. Motivation Strategies to Facilitate Transfer in Community College Students

Brandilynn Villarreal, Psychology, Faculty

College of Professional Studies

There is a growing disconnect between youths' expectations to attend and graduate from college on the one hand and their ability to follow through on these plans on the other. This discrepancy is pronounced at the community college, especially among low-income, first-generation, and underrepresented students. This study examined motivational and self-regulatory strategies in community college students aspiring to transfer to a university. The results suggest that goal engagement strategies, such as persisting when encountering obstacles, avoiding distractions, and seeking outside support, are useful in understanding transfer-related behaviors and outcomes in community college students.

110. Music and Mindfulness

Craig Zuber, Social Work, Graduate Student

College of Professional Studies

Music and Mindfulness is a project created in partnership with Trinidad Elementary School to assess the efficacy of using therapeutic drumming and mindfulness for substance abuse prevention. This project combines research from Trauma-Informed practices, Relational Theory, and emotional awareness to assist students in building healthy relationships and increasing self-esteem.

111. Nanodiscs Stabilize Anabaena Sensory Rhodopsin for Transcriptional Regulation Studies

Max Cox, Chemistry, Undergraduate Student
William Castillo, Chemistry, Undergraduate Student
Madelyne Green, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

Anabaena Sensory Rhodopsin (ASR) is a retinal containing membrane protein from Anabaena nostoc. ASR undergoes an orange-light induced conformational change from an all trans form to a 13-cis form, which is associated with the release of a bound transducer protein ASRT. It is proposed that the ASR/ASRT complex directly controls the transcription of phycocyanin (cpc-gene) and phycoerythrocyanin (pec-gene). In order to study this protein complex, ASR nanolipoprotein particles (nanodiscs) were assembled, which allows both ends of the ASR protein to be studied. These particles will enable, the main goal of this research, which is to identify the mechanism of the ASR/ASRT control of transcription.

112. Nanoscale Modifications to the RsaA S-Layer Protein Enhance Lead Binding in Whole Cells

Kayla Templeton, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

Due to the many industrial processes of modern America, heavy metal contamination of our waterways, specifically in densely populated areas, has become a major issue. The Prokaryotic species Caulobacter vibrioides exhibits a surface layer protein, RsaA,

forming a 2-D crystallin array above the cell membrane. RsaA can be modified to exhibit a high binding potential with many of the charged ions, such as heavy metals, which are found in waterways. Here we show through an quantitative fluorescence assay that upon exposure to 39.063nM Pb solution, engineered C. vibrioides strains Hcm 027, and 028 remediated approximately 10% more Pb than the wildtype, Hcm 009.

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113. Native American Schools

Amy Torres, Communication, Undergraduate Student

College of Arts, Humanities & Social Sciences

The focus on my project will be in education in Native American schools. I will research about the structure of the schools such as Albuquerque Indian School, Chemawa Indian School and Carlisle Indian School and then talk about what happened in the past and forward each of the schools. Reason(s) why the topic being researched: The reason why I am planning to do research on education in Native American schools is because my family is mixed racially and I want to learn more about what occurred at the following Native American schools.

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114. New Petrology and SEM imagery of the West China Peak Complex of the Ironside Mountain Batholith, Klamath Mountains, Trinity County, CA

Desiree Otillio, Geology, Undergraduate Student

College of Natural Resources & Sciences

The Ironside Mountain Batholith located in the Western Hayfork terrane in the Klamath Mountains province represents crustal derived plutonism that pre-dates the Nevadan Orogeny by 20Ma. Redating the Ironside Mountain Batholith will be done via U-Pb laser ablation of accessory zircons, this will yield an age of crystallization thus providing an age of emplacement, and constrain the pre-Nevadan orogeny. Barnes and Petersen dated the Ironside Mountain Batholith in 1992 using U-Pb, Pb-Pb, and K-Ar dating methods, and yielded a date in the Mid Jurassic from 169 Ma (K-Ar) to 174 Ma (U-Pb), with an accepted age of 170Ma.

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115. Northcoast Environmental Center

Nick Rasmussen, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Social Media platform assistant. Taking photos of local landscapes around Humboldt County as well as events and strategically placing them onto the organization's social media platforms.

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116. Novel Tests of Gravity Below Fifty Microns

Jack Stillman, Physics & Astronomy, Undergraduate Student
Nicholas Hernandez, Physics & Astronomy, Undergraduate Student
Jeremy Johnson, Physics & Astronomy, Undergraduate Student
Gabriela Martinez, Physics & Astronomy, Undergraduate Student
Noah Dunkley, Physics & Astronomy, Undergraduate Student
C.D. Hoyle, Physics & Astronomy, Faculty
Zane Comden, Physics & Astronomy, Undergraduate Student
Hilde Isachsen, Physics & Astronomy, Undergraduate Student

College of Natural Resources & Sciences

Theories attempting to unify the Standard Model and General Relativity often include features that violate the Weak Equivalence Principle and gravitational Inverse-Square Law. Motivated by these considerations, undergraduates and faculty at Humboldt State University are operating an experiment to probe gravitational interactions below the 50-micron length scale. The experiment employs a torsion pendulum whose twist is measured as an attractor mass is oscillated nearby. The size and distance dependence of the torque variation provides a means to determine the existence of deviations from expected behavior at untested scales.

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117. Novice Cyclists Using Shorter Crank Lengths Produced Greater Power at Same VO2

Jessie Armendariz, Kinesiology, Graduate Student

College of Professional Studies

Compared to trained runners, novice runners employ lower stride frequencies and shorter stride lengths as they run at lower speeds vs trained runners. Novice cyclists may benefit from a similar paradigm, utilizing shorter crank lengths as an analog to the lower stride frequencies and shorter stride lengths used by novice runners. The purpose was to determine the impact of short crank arms on novice cyclists' performance and comfort during a bout of moderate intensity cycling. Data analysis and conclusion will be included on poster.

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118. Oh my God. I am the highest I have ever been: User Experiences with Cannabis Edibles

Josh Meisel, Sociology, Faculty
Grecia Alfaro, Sociology, Undergraduate Student
Marco Chavez, Sociology, Undergraduate Student
Rosa Cuevas, Sociology, Undergraduate Student
Jay Schoenfield, Sociology, Undergraduate Student
Jessica Smith, Sociology, Graduate Student
Torisha Stone, Sociology, Graduate Student

College of Arts, Humanities & Social Sciences

Cannabis legalization in the U.S. is associated with greater usage, new cultivation methods, increased THC potency, and new modes of ingestion. Inconsistent edibles labeling and dosage control resulted in a spike in cannabis edible related emergency room admissions. This study examined negative user experiences with edibles. We conducted in-depth interviews with a nonrandom sample of 45 medical and recreational cannabis users in California and Colorado. We asked interviewees about their prior use, negative edible experience, and short and long-term responses to their bad edible experience. We

coded interviews for the sources and behavioral implications of negative edible experiences.

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119. On to the Future! for Renewable Energy in Arizona, California, New Mexico, and Texas

Amanda Hemingway, Mathematics, Undergraduate Student
Briana Ramirez, Mathematics, Undergraduate Student
Jaime Sanchez, Mathematics, Undergraduate Student

College of Natural Resources & Sciences

The data analysis MCM problem asked us to create energy profiles and to understand trends and important variables in order to make future goals for the states Arizona, California, Texas, and New Mexico. We made statistical models for each state to understand trends, as well as to help in the predictions for energy usage in 1925 and 1950. A ranking of each profile was instituted based on an analysis of the given data. Using both the models and the profiles, goals were set for all the states to make together in an Energy Compact to increase renewable energy production and consumption. This was all compiled into a memo for the state's governors.

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120. Outcomes of a Disconnected Society: Tough on Discipline and the School to Prison Pipeline

Grecia Alfaro- Ruiz , Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

In this study a triangulation of teacher testimonies and school policies is used to address how systemic inequalities are maintained through institutional rules and individual understandings and how teachers understand their role in a system that unjustly criminalizes students of color. With a grounded theory approach, four main themes were identified: 1) causes of disproportionate discipline according to educators; 2) "tough on discipline" 3)policing, surveillance, and intolerance of student misbehavior; 4) bureaucratization of school discipline. Possible solutions are discussed and other avenues for future research are addressed.

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121. Parents Before Prisoners: Maintaining Connection Throughout Separation

Haley Hoblitt, Social Work, Graduate Student

College of Professional Studies

The complexity of the Child Welfare System has left Humboldt County Correctional Facility (HCCF) incarcerated parents voicing their confusion of the system specifically regarding how to reach case plan objectives in an institution that offers limited family reunification services. The collective project, Parents Before Prisoners: Maintaining Connection Throughout Separation, aimed to address this matter by creating a resource guide for HCCF parents, that not only explains the child welfare system, but also contains a curriculum that can be used to reach case plan objectives.

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122. Pathways to Healing: A Cultural Identity Development Curriculum

Shaylynne Masten, Social Work, Graduate Student

College of Professional Studies

With the Bear River Band of the Rohnerville Rancheria's Ts' Denoni Youth Program, I developed a curriculum that covers cultural teachings such as ceremony protocol, regalia, Tribal histories, gender roles, etc. This curriculum focuses on the following: (1) for youth and their families to familiarize themselves with the local Tribal histories, ceremony protocol, regalia, basketry, etc., (2) to help Native youth and families become more comfortable in their own cultural knowledge and identity, and (3) provide a foundation of local cultural knowledge that our youth and families can pass down to the next generation, to help create a cycle of healing.

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123. Planet Rocket Collaboration Station

Adam Hayes, Communications, Undergraduate Student

College of Arts, Humanities & Social Sciences

A collaborative experience where our team will interact with Ideafest participants and help them develop strategies to take their research to the next level. Our creative project is an online platform called Planet Rocket that will help spark community change by allowing users to crowd fund the talent and resources to make their projects a reality. We will give a live demonstration of how Planet Rocket works and recruit participants to list their projects on our platform so that they can take their research and create positive change in the local community.

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124. Police Officer Identification and Leadership Prototypicality

Berkeley Kijsriopas, Psychology, Graduate Student
Alexandra Cruz, Psychology, Undergraduate Student
Haley Carter, Psychology Undergraduate Student
Dr. Amber Gaffney, Psychology, Faculty

College of Professional Studies

Survey data was collected from the CSU system's 21 campuses' police officers in June of 2017. We will be examining the extent to which officers' perceptions of their leader's representativeness predicts their support for the leader, trust for the leader and the leader's effectiveness, and how these relationships are affected by officer uncertainty.

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125. Political Anatomy of a Farmers' Market: Food Justice, Cultural Politics and Waste Management on the Plaza

Samantha Stone, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My research examines the North Coast Growers Association's food access, cultural inclusion and waste management initiatives through a critical environmental justice lens. It highlights the efforts of Farmers' Market Incentive Programs such as SNAP, WIC and Market-Match in addressing food insecurity and attracting low-income and student participation to markets. I discuss the geography

of waste management as it pertains to the 'zero waste' initiatives of NCGA, and touch on the general tendencies of California farmers' markets to construct themselves as 'white spaces.' My research offers several strategies to disrupt whiteness and the 'white farm imaginary' in these spaces.

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126. Post-fire seedling recruitment in the 2008 Siskiyou complex fire

Buddhika Madurapperuma, Forestry and Wildland Resources/ Environmental Science and Management, Faculty
David Greene, Forestry and Wildland Resources, Faculty
Michael Perez, Forestry (Wildland Fire Management), Undergraduate Student

College of Natural Resources & Sciences

The spate of recent high intensity (stand-replacing) fires in California has led some to wonder whether our tree species are adapted to such large burns. Many assume that regeneration will typically be so poor that many of these burns will be dominated by shrubs and herbs instead of forests. This study examines seedling recruitment of conifers as a function of distance across a 1 km-wide burn near Hoopa. Six transects, each 50 m x 4 m, were spaced along the 1 km transects, and seedlings and burnt cones were counted. Douglas-fir and white fir averaged 2903 ha-1 and 1996 ha-1 seedlings, respectively, and 75% of the km had >490 recruits/ha (the minimal acceptable density in California).

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127. Potter Valley Project Relicensing: The Fate of Two Watersheds

Colin Mateer, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

At the headwaters of the Eel River stand two large dams. Not far from the Eel River is the Russian River, which has become hydrologically connected across a natural divide by a mile long diversion tunnel transporting water from the dammed Van Arsdale Reservoir in the Eel River into the Russian River. The dams will be up for relicensing in 2022, and as such stakeholders have come together to begin the political process. An interdisciplinary analysis of the current dialogue and data provides a critical tool in understanding the complexity of the relicensing process that will ultimately decide the fate of the two watersheds and the human and non-human communities that share the water.

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128. Predicting Renewable Energy Usage with Linear Regression and Time-Series Analysis

Linh Pham, Biology, Undergraduate Student
Kayleigh Migdol, Math and Computer Science, Undergraduate Student

College of Natural Resources & Sciences

For California, Arizona, New Mexico, and Texas, increasing renewable energy production and consumption is important in the face of climate change. We develop a model to analyze these states' current renewable energy production and future projection. Findings from the model could lead to policy changes in favor of renewable energy.

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129. Predictors of School Connectedness, Self-Esteem, and GPA

Tsolak Michael Kirakosyan, Psychology, Graduate Student
Melissa Hansen, Psychology, Undergraduate Student
Geyra Gastelum-Hernandez, Psychology, Undergraduate Student
Anahi Avila, Anthropology, Undergraduate Student
Maria I Iturbide, Psychology, Faculty

College of Professional Studies

Students should experience feelings of belonging and safety on their university campus. We ran multiple regression analyses to identify factors that predict school connectedness, well-being, and GPA among students (n=127, 72% women, 41% white). Overall stress is a risk factor for school connectedness.

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130. Provenance Analysis of the Plio-Pleistocene Prairie Creek Formation, Humboldt County, CA

Benjamin Roberts, Geology, Undergraduate Student

College of Natural Resources & Sciences

The Pio-Pleistocene Prairie Creek Formation (PCF) is located within Prairie Creek State Park on the forearc of the Cascadia subduction zone. The PCF was deposited in late Pliocene to Pleistocene time during a time of mostly forearc subsidence, which resulted in an ancestral Klamath River to deposit fluvial sand and conglomerate in a braided river environment. By looking at the composition of the sand and gravels we can determine the provenance of the formation, which can then intern be used to constrain the paleogeography of the nearby coast range and Klamath Mountains during the time of deposition.

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131. Providing Wheelchair Access to the Beach

Francesca Watts, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Providing further accessibility to handicapped individuals, I have teamed up with Friends of the Dunes to widen the Wildberries trail, from the Humboldt Coastal Nature Center in Manila out to the beach, for wheelchair use. Currently there are no other trails in which leave from the Nature Center that are wide enough for a wheelchair to pass through. There currently is a wheelchair at the Nature Center in which is designed to be pushed through the sand, but no trail to easily take it on. The dunes are for everyone in the community to cherish and access should therefore be given to all; which is why I am using my experience of trail construction to provide that experience to all who wish.

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132. Psychedelic Harm Reduction

Michael Sonn, Social Work, Graduate Student

College of Professional Studies

The Institute of Harm Reduction Research, Policy and Practice (IHRRPP) seeks to reduce harms associated with alcohol and other drugs (AOD). Such harms affect individuals, families, and the local community. Harm may be the result of problematic substance use, or the laws and policies which pertain to substance consumption.

The Zendo Project is an offshoot of the Multidisciplinary Association for Psychedelic Studies (MAPS), and seeks to provide education on the nature of psychedelic harm reduction. By providing best-practice training for attending to psychedelic crises, Zendo Project reduces harms that can arise from erratic behavior, penal responses, and other negative experiences.

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133. Psychometric Characteristics of the Demoralization Scale in College Students

Irene Gonzalez-Herrera, Psychology, Graduate Student
Kaylee Williams, Psychology, Graduate Student
Nena McGath, Psychology, Graduate Student
William Reynolds, Psychology, Faculty

College of Professional Studies

There is limited research on demoralization in college students. Most research in this domain has focused on medical populations, such as persons with cancer (Mehnert et al, 2011; Mullane et al, 2009) or other health-related problems. The most used measure of this construct is the Demoralization Scale (DS; Kissane et al, 2004). The 24-item DS includes components of dysphoria, feelings of incompetence and loss of meaning, with good reliability and validity in clinical samples (Kissane et al., 2004; Pei-Ling et al., 2015). The current study examined the reliability and validity of the DS in college students.

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134. Public Lands Bill- Drafting of Environmental Bills in the United States' Current Contemporary Political Arena

Megan Burke, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project focuses on my work with Congressman Jared Huffman's office and their efforts regarding the upcoming Public Lands Bill. They are working on restoring and revitalizing forests and watersheds, conserving ecologically significant areas, and expanding recreation opportunities in the North Coast. My internship has allowed me to see the American political system in action and witness local community participation in drafting of bills and has provided a window into the political feasibility of bills around environmental issues in the current contemporary political arena.

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135. Quality Control Methods for Analyzing Metals in Seawater: Blanks

Kezia Rasmussen, Chemistry, Oceanography, Undergraduate Student
Elizabeth Freeman, Chemistry, Undergraduate Student
Claire Till, Chemistry, Faculty

College of Natural Resources & Sciences

Many metals in seawater are key micronutrients, essential in small quantities for the growth of phytoplankton. Analysis of these metals can be challenging due to their low concentration and the complex seawater matrix. Properly quantifying the blanks of the analytical method is critical to obtaining excellent results. In this work, we present preliminary data on accurately and precisely quantifying the blanks due to the analytical process of measuring metals in seawater. Once the blanks are properly quantified and minimized, the method can be used with seawater samples.

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136. Rare Plants of Redwood National Park

Alyssa Klymkiw, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

My task was to use GIS - Cartographic design to create a clear reference map for trail maintenance workers at Redwood National Nark (Orick, CA). The map will act as an education tool to promote conservation of rare native plants unique to the ecosystem found only in the Pacific Northwest coastal redwoods.

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137. RCEA ZEV Enthusiast Group

Maya Tobar, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Interning with RCEA to fulfill a grant requirement by creating and managing a ZEV Enthusiast Group

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138. Relapse Prevention/Substance Use Disorder Group

Danilo Mullins, Social Work, Graduate Student

College of Professional Studies

This project concists of my participation as a co-facilitator in a substance abuse relapse prevention group through the Redwood Community Action Agency (RCAA) located at Waterfront Recovery Services in Eureka. This group meets once a week with participants who are in the early stages of recovery and who are ready to learn new coping skills that will enhance the rate of success and minimize relapse incidents. Evidence-based practice methods as they pertain to the five models of group therapy used in substance abuse treatment is being utilized in addition to traditional cultural elements congruent with the Native American worldview.

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139. Relational Aesthetics

Taylor Macias, Art Education, Undergraduate Student

College of Arts, Humanities & Social Sciences

I am interested in adjusting the paradigm of art in public schools. I want to learn more about how art can affect change in people in regards to themselves and their relationship to the world. I want to move beyond pen and paper sketches of three dimensional shapes in space to strengthen our view of ourselves as agents of our own destiny in the world, as I believe this is arts purpose. My research consisted of fifteen participatory instructional performance art pieces done on or near HSU. I did not always provide services and spaces that were enticing enough to draw many people, but I enlivened a new art form on campus, I gave people an authentic and original experience, and I learned a lot.

140. Resiliency of Homeless College Students in Humboldt County

Janette Mexicano, Social Work, Undergraduate Student
Wendy R. Choate, Social Work, Undergraduate Student
Haley Herren , Social Work, Undergraduate Student
Marissa L. O'Neill, Social Work, Staff
Pamela H. Bowers, Social Work, Staff

College of Professional Studies

The prevalent issue of students experiencing homelessness at Humboldt State University is addressed in our project. We found that students have the resiliency to stay in school and continue pursuing a higher education despite the insecurities of homelessness. We interviewed ten amazing students who gave testimony to the housing crisis affecting Humboldt County. These students found resiliency in their families, their community, their friends, and other effective resources. Their dedication to school was met with integrity, overcoming the barriers preventing them from housing all while pursuing a degree .

141. Responses to infant facial cues in parents and non-parents

Melissa Martin, Psychology, Graduate Student
Hannah Fergusson, Psychology, Graduate Student
Mariah Lehnertz, Psychology, Graduate Student
Karina Gigear, Psychology, Graduate Student
Amanda Hahn, Psychology, Graduate Student

College of Professional Studies

Infant facial features elicit perceptions of cuteness and capture attention in adults. It is believed that this attunement to infant cues may enhance motivation to engage in caretaking behavior. A number of recent studies have investigated liking and wanting responses to infant faces using perceptual ratings of cuteness as a measure of liking and an effort-based key-press task as a behavioral measure of wanting. It has been speculated that these two measures are likely to be important components in parental behavior, but this link has not yet been explicitly tested. To address this issue, we measured liking and wanting responses to infant facial cuteness in parents and non-parents.

142. River Otter Citizen Science Project

Chelsea Stewart-Fusek, Wildlife, Undergraduate Student

College of Natural Resources & Sciences

River otter sightings from watercourses and coastlines in Humboldt, Del Norte, and adjacent counties are sought by citizens in order for population status to be assessed and monitored. The project is run by Professor Jeff Black and students of Humboldt State University's Wildlife Department.

143. Role of p38 in glioma

Angelica Romero, Biological Sciences, Undergraduate Student
Casiana Gonzales, Biological Sciences, Undergraduate Student

College of Natural Resources & Sciences

Gliomas are highly malignant intracranial tumors that result in a low survival rate due to an invasive phenotype and its diffuse nature. As a result, tumorigenic stem-like glioma cells are poorly targeted by conventional therapies. MAPK kinase 3 (MKK3) has been found to be a key upstream activator of the p38 MAPK protein and is upregulated in invasive glioma cells. Recent evidence suggests that interfering with MKK3 signaling through the inhibition of p38 can inhibit tumor cell invasion in vitro (Demuth et al. 2007). We are interested in examining the role of p38 in glioma through the ability of these cells to form tumor-like colonies in soft agar with modifications in Lgl1 gene expression.

144. Rooftop farming in Hong Kong

Ka Ki Li, Enviornmental Science Management, Undergraduate Student

College of Natural Resources & Sciences

The idea of this study is to conduct more research on farming in the city, to be specific, Hong Kong. As I grew up in Hong Kong, space is one of the biggest challenges in the city. While citizens are looking for ways to implement their lifestyle, rooftop farming can be one of the great opportunities to build up a community around the neighborhood, provide fruits and vegetables for the residents, and promote a healthy living lifestyle. While promoting the idea of rooftop farming, there are obstacles that the residents need to be overcome. Therefore, I will be analyzing the ecosystem, finance, and government policy that might help the city farmers in Hong Kong.

145. Rural Food Insecurity in Humboldt County

Amy Lautamo, Geography, Undergraduate Student

College of Arts, Humanities & Social Sciences

A wide range of environmental, social, and economic factors contribute to the issue of food insecurity. Despite being overwhelmingly agriculturally based economies, rural communities are some of the areas most at risk for high levels of food insecurity. This work addresses why the unequal distribution of food within an area of relative food abundance cannot be understood through the same lens as urban food deserts, but must be analyzed from the bottom up: following the supply chain of food throughout the social, environmental, and economic structures of the rural community.

146. Saudi Women Enforce Freedom of Expression

Yolena Ramirez, Communication, Undergraduate Student

College of Arts, Humanities & Social Sciences

This project promotes freedom of expression in today's world by demonstrating advocates in a hostile society creating a movement to show women can be just as competent as men. It is important to acknowledge women are still fighting to receive the benefits of equality in other countries. Women in all parts of the world should be able to engage and contribute within any given community to

enhance the quality of society. I find it amazing that women advocates in Saudi Arabia risked their lives, ruined their reputation, and even lost their jobs in order to support the movement by demonstrating their freedom of expression.

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147. Searching for Trends in Atmospheric Compositional of Extrasolar Planets

Kassandra Weber, Physics and Astronomy, Undergraduate Student
Adam Turk, Physics and Astronomy, Undergraduate Student
Paola Rodriguez Hidalgo, Physics and Astronomy, Faculty
Stephen Kane, Astrophysics, Faculty
Troy Maloney, Physics and Astronomy, Graduate Student

College of Natural Resources & Sciences

In recent years, there has been a growing interest in planets outside of our solar system, also known as exoplanets. Our research involves looking for trends in these planets' potential habitability, through archival information about the planets' radius, its distance from its parent star, and its atmospheric composition. The latter is obtained using transmission spectroscopy, which shows absorption on different regions of the planets' spectrum depending on the composition of the atmosphere. We are working in collaboration with Dr. Stephen Kane, the creator of the Habitable Zone Gallery, to include the spectroscopic information in this database, which will allow the community to access it.

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148. Seeking Safety Fidelity Assessment

Deisy Cornejo, Masters in Social Work, Graduate Student

College of Professional Studies

The community need I addressed is part of the Department of Health and Human Services Mental Health branch of Hum WORKS. I evaluated the fidelity of Seeking Safety group facilitation compared to the specifics of the book. I collected data on how well the Seeking Safety group is facilitated through an assessment tool with a scale from 0 to 3. Addressing mental health needs for PTSD and substance use co-occurring disorders in Humboldt County. There are two rating scales one is the quality the facilitator is providing to the Seeking Safety group. The second is helpfulness of the facilitators quality of mental health services provided overall for the clients last twelfth classes.

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149. Sequoia Park Zoo Youth Assistant Keepers

Savanna Schaffer, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

I have partnered with the Sequoia Park Zoo to revise their Youth Assistant Keeper Program to create a sustainable, impactful program that can be implemented with the use of a binder. Local, 11-15 year-olds will be guided through various aspects of zoos and animal husbandry while being asked to observe, critique, and explore the work of the Zoo and related work for best practices in animal care, equity, and accessibility. This unique opportunity for personal and academic development encourages autonomy and ownership over individual work, promotes leadership and diversity, cultivates a cooperative, team-centered environment, and inspires connection with and conservation of the natural world.

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150. Service Learning at Elementary Afterschool Programs

Hanna Benner, Child Development, Undergraduate Student
Alanna Dolan, Child Development, Undergraduate Student
Elizabeth Shank, Child Development, Undergraduate Student
Andrea Gauthier, Child Development, Undergraduate Student

College of Professional Studies

As a part of a service learning class, we spent 30 hours in two Elementary Afterschool programs. We had our service learning goals in terms of knowledge, skills, and values. In this poster, we present our goals, the lessons learned and the challenges faced in the service learning.

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151. Service Learning at Sunny Brae Afterschool Program

Elizabeth Osuna, Child Development, Undergraduate Student
Arleeth Torres, Child Development, Undergraduate Student

College of Professional Studies

As a part of a service learning class, we spent 30 hours in Sunny Brae Middle School Afterchool Program. Both of us had our service learning goals in terms of knowledge, skills, and values. In this poster, we revisit our goals and present the lessons learned and challenges faced in the service learning.

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152. Service Learning in Preschool Programs

Alanna Dolan, Child Development, Undergraduate Student
Elizabeth Spencer, Child Development, Undergraduate Student
Jennifer Masad, Child Development, Undergraduate Student
Michelle Martinez, Child Development, Undergraduate Student

College of Professional Studies

As a part of a service learning class, we spent 30 hours in two preschool programs. Each one of us had the service learning goals (knowledge, skills, and values). In this poster, we present the lessons learned and challenges that we faced in the field.

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153. Service Learning in the Community through Y.E.S. House Programs

Kimberly Duarte, Child Development, Undergraduate Student
Garrett Assumma, Child Development, Undergraduate Student
Mikhayla Freeman, Child Development, Undergraduate Student
Claire Brown, Child Development, Undergraduate Student

College of Professional Studies

As a part of a service learning class, we spent 30 hours in the community through the Y.E.S. House programs. Each one of us had our service learning goals in terms of knowledge, skills, and values. Y.E.S. House places its volunteers in the community. In this

poster, we present the lessons learned and challenges faced in the service learning.

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154. Shelter Crisis Declaration

Kristen Flores, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

My service learning site has consisted of research for County Supervisor Virginia Bass on the shelter crisis declaration. I will be presenting my research on how does this declaration help and what are the benefits to having a crisis shelter declaration. I will also provide research on what other Counties in California have made these declaration that are similar to Humboldt County in size and rural characteristics.

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155. Slang and Uncertainty as Motivational Factors for Group Identification

Benny Chu, Psychology, Graduate Student
Josue Rodriguez, Psychology, Graduate Student
Edwin Siefert, Psychology, Undergraduate Student
Breanna Scott, Psychology
Amber Gaffney, Psychology, Staff

College of Arts, Humanities & Social Sciences

People use verbal communication with other group members as unique social identity markers. As a result, when individuals recognize the informal language (slang) of their fellow group members, they should feel confident and included in their group.

The current work focuses on the use of group specific slang, which is the identity-specific information derived from group membership, as a marker of social identity. Specifically, confidence in ones' ability to recognize ingroup specific slang should mediate the relationship between knowledge of the ingroups' slang and feelings of inclusion in the group and similarity to ingroup peers.

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156. Small Town, Big Hearts: Peer Counseling in Rural Mendocino

Cecelia Gillespie, Social Work, Graduate Student

College of Professional Studies

This Peer Counseling program was dedicated to creating a healthy community culture through mentoring younger students, youth advocacy, and peer education. Peer mentors received training in topics including communication, conflict resolution, cultural humility, and self esteem building. Throughout the program peer mentors met several times a month for seminars to process their experiences and receive additional training. Peer counselors also created presentations for middle school classrooms, volunteered at Healthy Start Family Resource Center events and were called upon by the wider community for participating in youth advocacy radio, drug free community focus groups, and more.

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157. Solar + Battery

Paul Acosta, Mathematics, Undergraduate Student
Michael Wilson, Mathematics, Undergraduate Student
Ditza Guerra, Mathematics, Undergraduate Student

College of Arts, Humanities & Social Sciences

Consumers have similar daily patterns of electricity usage, and this causes peaks in demand. Spikes in electricity demand are inefficient for electricity producers and unnecessary costs are passed on to electricity consumers. Localized solar and battery systems are one way to "spread out" electricity demand and reduce the amount of electricity sent through the grid at a given time. We created a model that describes the reduction in consumer demand by implementing a solar energy generation and battery storage system. Our model predicts >75% decrease in oscillations, and >5% decrease in costs.

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158. Spinel Comparison of Deer Mountain Quarry Cinder Cone, California, and the Trinity Ophiolite, California

Joseph Davies, Geology, Undergraduate Student

College of Natural Resources & Sciences

I used the Scanning Electron Microscope in Science B to compare chromium spinels from a volcanic eruption related to Shasta, and spinels from the proximal Trinity ophiolite which has been inferred to lie beneath Shasta by previous authors.

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159. Standards for Analysis of Metals in Seawater

Sean Sandstrom, Chemistry, Undergraduate Student
Robert Freiberger, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

Over the past few decades, trace metals have been shown to have a significant impact on marine biogeochemical cycles. Certain trace metals are essential components in the control of marine primary producer populations. Because of the significant effects that trace metals can have on marine environments, there's an increasing need for multi-element analytical methods that allow for high sample throughput and quantification over a broad range of element concentrations that reflect the range observed in the oceans. As such, the main objective of this research project is to determine appropriate standards to accurately quantify trace metals in seawater.

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160. Stratigraphic and Mineralogical Characteristics of Cu-Zn-Co-Mn Mantos at Minera Boleo, Santa Rosalía, BCS, Mexico

Olivia Helprin, Geology, Undergraduate Student

College of Natural Resources & Sciences

This poster documents a REU research project investigating the stratigraphic emplacement of ore minerals in a mining district in Baja California Sur, Mexico.

161. Strength and Needs Assessment of the Humboldt State Student Disability Resource Center

Lydia Rowen, Social Work, Graduate Student

Using data collected in 2017 from student consumers of the Humboldt State University (HSU) Student Disability Resource Center (SDRC), a strength and needs assessment of their program was conducted. This project explored the personal and academic experiences of students who are disabled at HSU and utilize SDRC services. The goal of this project was to identify the strengths of the SDRC and to make recommendations for what could be improved upon, specifically in terms of access to resources and support.

162. Student Legal Lounge

Reza Sadeghzadeh, Communication, Undergraduate Student
Kimo Martin, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

The Student Legal Lounge (SLL) is an on-campus resource created by students for students. SLL provides the pupils of HSU with legal information, which has been researched by students in many different legal fields; such as housing rights, immigration rights, constitutional rights, and etc.

In addition, SLL has commenced an attorney referral program, so that our students have the adequate tools when they are faced with a serious legal quandary. Needless to say, not only is the SLL a great on-campus resource for HSU students, but it also provides an opportunity for involvement for those who are interest in legal work a chance to gain communication, research, organizational skills.

163. Survey of Extremely High Velocity Outflows in Quasars from the Sloan Digital Sky Survey's Ninth Data Release

Griffin Kowash, Physics and Astronomy, Undergraduate Student
Carla Quintero, Physics and Astronomy, Undergraduate Student
Sean Haas, Physics and Astronomy, Undergraduate Student
Abdul Khatri, Astronomy and Astrophysics, University of Toronto, Undergraduate Student
Patrick Hall, Physics and Astronomy, York University, Faculty
Paola Rodriguez Hidalgo, Physics and Astronomy, Faculty

College of Natural Resources & Sciences

We present the first survey of extremely high velocity outflows (EHVO) in quasars from the Sloan Digital Sky Survey data release nine quasar catalog (SDSS DR9Q). Our survey draws from the 87,822 spectral targets in DR9Q. EHVO candidates were identified by measurement of one of the transitions due to absorption in carbon ion (C-IV), which appear in the spectrum as broad absorption features. Spectrum analysis was carried out by python codes developed by our group with results confirmed by visual inspection. The presented survey is composed of 45 quasars EHVO ranging in velocity from ~50,000 to 30,000 km/s. Our survey will be made available online as a publicly accessible database.

164. Switching to Electric Cars , and the Efficiency of Allocating Charging Stations

Angelica Hernandez, Math, Undergraduate Student
Dillon Solliday, Math, Undergraduate Student
Jackson Stillman, Math, Undergraduate Student

College of Natural Resources & Sciences

For environmental and economic reasons, there is a global interest in reducing the use of fossil fuels, including gasoline for cars. Whether motivated by the environment or by the economics, consumers are starting to switch to electric vehicles. Several countries are seeing early signs of the potential for rapid growth in the adoption of electric vehicles. In the US and other countries, the release of the more affordable all-electric Tesla Model 3 has resulted in record numbers of pre-orders and long wait lists. Our group set out to find an optimal allocation of electric charging stations in the U.S and South Korea by creating a math model of the number of stations per region.

165. Synthesis and Evaluation of a Lead Binding Peptoid

Tara Alizadeh, Chemistry, Undergraduate Student
Parisa Ghaffari, Chemistry, Undergraduate Student
Jenny Cappuccio, Chemistry, Faculty
Frank Cappuccio, Chemistry, Faculty

College of Natural Resources & Sciences

Lead is a particularly problematic environmental contaminant. The peptide sequence GGGTNTLSNNGGG has an affinity for binding lead particles. Utilizing solid phase reaction chemistry the peptoid analog was synthesized. The resin bound peptoid has been evaluated for lead binding affinity using Flame Atomic Absorption Spectrophotometry. Initial results show a 27:1 lead to peptoid binding with an average 14% lead decrease in the presence of 1.31×10^{-5} per mole of the peptoid. Treatment of peptoid bound lead with hydrochloric acid resulted in release of lead indicating the recyclability of this peptoid modified resin.

166. TCLT Internship Accomplishments

Tatiana Gillick, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Trinidad Coastal Land Trust is the organization I am connected with for my service learning project. I am tasked with many responsibilities to complete while in the office. To list a few of the tasks that I have been assigned while interning with Trinidad Coastal Land Trust. Some of the tasks are website review and making sure google maps has the properties under the Trust correctly marked. Being an Environmental Studies major I can use my view in certain situations that come up during meetings to broaden the viewpoints and get to an understanding. I am in contact with multiple people with their own goals in mind and we make collaborative decisions to make TCLT better for the future.

167. Testing the Variable-Density Retention Silvicultural System as a Tool for Restoration of Conifer Dominance

Alexander Gorman, Forestry and Wildland Resources, Undergraduate Student
Pascal Berrill, Forestry and Wildland Resources, Faculty

College of Natural Resources & Sciences

After harvesting the merchantable conifers decades ago, many secondary forests in northern California regenerated naturally and are now fully stocked with low value hardwoods intermingled with conifers. Partial harvesting to reduce hardwood densities and release conifers is expected to enhance tree vigor and reduce risk of stand-replacing wildfire. Planting a new cohort of merchantable conifers in the understory would enhance structural complexity and future value. A flexible new forest restoration treatment called variable-density retention (VDR) was designed to achieve these objectives.

168. Text, Comment, Message: An Analysis of Support

Makayla Whitney, Anthropology, Undergraduate Student
Benjamin Maceda, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

While previous research has focused upon how anonymity provides space for aggressive gestures like "trolling," less work has been done on supportive social gestures characteristic of anonymity. From public restrooms to websites devoted to anonymous confession, anonymity can and does enable gestures of support. This research develops analysis of messaging from social media platforms, including Whisper and 4Chan, public commentary, and physical space graffiti to explore anonymous gestures of support. Our research aimed to contribute to work on authenticity, self-presentation, and social interaction by exploring ways in which "support" is offered and taken up within anonymous communities.

169. The Battle of Chavez Ravine

Abel Gonzalez, History, Undergraduate Student

College of Arts, Humanities & Social Sciences

The topic that I have chosen for paper is The Battle of Chavez Ravine. The Battle of Chavez Ravine refers to the events that took place in Los Angeles, CA between 1951-1961. The focus of my paper is on the families living in Chavez Ravine and what their experience was like getting forcibly thrown out of their homes, as well as how the events separated families and friendships that previously held close bonds. The eviction of the Mexican-American community lead to the installment of Dodger Stadium,which was another component of a new suburban culture that was made to favor white middle class suburban consumers. My argument is when the residents lost their homes they also lost their memories.

170. The Drive Home: Travel Times from Humboldt County to the rest of California

Brian Murphy, ESM: Geospatial Science, Undergraduate Student

College of Natural Resources & Sciences

An isochrone map of California depicting the time required to travel from Humboldt State University to the rest of the state.

171. The Early History of Humboldt State University's Multilingual Literary Journal Toyon

Korinza Shlanta, English, Undergraduate Student

College of Arts, Humanities & Social Sciences

Toyon has been recognized as one of the best undergraduate literary journals/magazines in recent years. Currently, Toyon is published by students in a classroom setting oriented towards career preparation for individuals who wish to gain experience in the publishing field, but the beginnings of the journal had a far more humble and nearsighted goal: to publish the creative work of students. The history of Toyon has had to be constructed through primary sources such such as yearbooks, back issues of the school newspaper The Lumberjack, and details from the back issues of the journal itself. The archive editor of Toyon has researched the history of the early issues through the 1970's.

172. The Effect of Descending Resistance Sets Compared to Constant Resistance Sets on the Volume Completed During a High Intensity Free Weight Back Squat Exercise

Jason Meyer, Kinesiology, Graduate Student
Young Sub Kwon, Kinesiology, Faculty
Taylor Bloedon, Kinesiology, Faculty
Sheila Alicea, Kinesiology, Faculty

College of Professional Studies

Resistance training is effective for improving anabolic hormone production; however, no previous research has developed optimized descending resistance sets to increase training volume. The purpose of this study is to compare two different loading protocols of the free weight back squat with 85% 1RM and 30 second rest period to determine the extent of progressive resistance reductions necessary to maintain repetition performance based on the %1RM. 15 resistance trained males completed experimental sessions, including descending sets and constant sets, with the goal of greater training volume. Specifically, using descending resistance sets for back squats allows for greater training volume.

173. The Effect of Stride Frequency Variations on Running Performance at the Velocity of VO2max

Boram Lim, Kinesiology, Graduate Student
Boe M. Burrus, Kinesiology, Faculty
Justus D. Ortega, Kinesiology, Faculty
Youngsub Kwon, Kinesiology, Faculty

College of Professional Studies

Running economy(RE) is considered to be a critical factor to improve running performance. Stride frequency(SF) is an important variable for determining RE. However, no previous research has investigated the interaction between running performance and SF at the velocity of maximal oxygen uptake (VO2max). The purpose of this study was to investigate the effect of SF variations on running performance (duration/distance) at the velocity of VO2max. 14 male recreational runners completed total 7 experimental sessions with different SF conditions. The SF variations have a significant influence on running performance, especially 105% of preferred SF conditions revealed the best performance.

174. The Effect of Workload on Exercise Volume during Exhaustive Anaerobic Treadmill Running

Taylor Kennon, Kinesiology, Graduate Student
Andrew Hahn, Kinesiology, Graduate Student
Nathan Tamayo, Kinesiology, Graduate Student
Boe Burrus, Kinesiology, Faculty
Taylor Bloedon, Kinesiology, Faculty
Young Sub Kwon, Kinesiology, Faculty

College of Professional Studies

The purpose of this study was to compare the effects of three different workload protocols on exercise volume completed during multiple sets of exhaustive anaerobic running on a treadmill. The longer times per set and greater volume achieved during the descending speed (DS) protocol, in comparison to the descending grade (DG) and constant set (CS) protocols, suggests the potential for a greater training effect. Total exercise volume achieved during the four sets of the DS protocol was significantly higher than both the CS and DG protocols. Differences in cadence values among the protocols could help explain differences in performance implicating muscle fiber type recruitment and fatigue.

175. The Effects of Secondary Cognitive Tasks on Performance of the 3-Meter Tandem Gait in Concussed and Non-Concussed Individuals

Angel M Lomeli, Kinesiology & Recreation Administration, Graduate Student

College of Professional Studies

Identifying sport-related concussions occurs on the sidelines with tests utilized by athletic trainers and other field-side professionals. The Tandem Gait (TG) is a commonly used side line dynamic balance test that has only moderate sensitivity when used alone. Research has demonstrated that incorporating a secondary simultaneous task (i.e. dual-task) to amplify differences in TG performance following injury may amplify the difference due to a concussion. However, a dual-task TG has yet to be established as a clinical assessment of concussion. The aim of this study is to determine the effect of secondary cognitive tasks on performance of the TG in concussed and non-concussed individuals.

176. The Evology of Addiction

Anais Southard, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

This research explores popular discourse regarding the "opiate epidemic" and deconstructs the ways in which popular conceptions of addiction and addicts shapes the care that that people recieve. By looking at the systemic causes of addiction, this research also examines the links between addiction, environmental justice, rurality, and the many facets of systemic oppression.

177. The Himalayan Blackberry (*Rubus Armeniacus*) In Humboldt County Riparian Areas :Mapping and Analysis of the Mad River and Jacoby Creek Ecosystems

Keelan Butler, Geography, Undergraduate Student

College of Arts, Humanities & Social Sciences

California is a native biodiversity hotspot, and is affected by over 60 invasive plants and animals despite aggressive state efforts to combat this problem. This project will focus on the relationship between the Himalayan blackberry and its effect on neighboring native species in the riparian areas of the Mad River and Jacoby Creek in Arcata, CA. The goal of this project is to highlight the spatial location and extent of the invasive blackberry thickets and design a potential abatement program that can be implemented at the local level. GIS will be used for mapping and special analysis.

178. The Role of Involvement and Campus Climate on the Academic Success of Black College Students

Tyries Delemar, Psychology, Graduate Student

College of Arts, Humanities & Social Sciences

There has been an increasing number of Black students entering into higher education, but they continue to have greater disparities in academic achievement when compared to White students. An institution's campus climate has been found to influence student success. This study seeks to examine the factor of campus climate, specifically negative campus racial climate (NCRC), as it relates to the GPA and university satisfaction of Black students at a rural institution. The study adds to the literature by exploring the degree to which involvement (Student-Faculty Involvement (SFI) and Club/ Organization involvement (COI)) may act as a moderating force within the relationship.

179. The Star Spangled Banner at Sporting Events: 1968-2018

Armeda C. Reitzel, Communication, Faculty
Matthew Velasco, Communication, Undergraduate Student

College of Arts, Humanities & Social Sciences

This study examines the renditions of and reactions to "The Star Spangled Banner," at sporting events in the United States from 1968 - 2018. First, music as rhetoric is defined. Second, the tradition of including the national anthem at sporting events is discussed. Third, specific examples of positive and negative reactions to different versions of "The Star Spangled Banner," at major U.S. sporting events from 1968 on are identified and examined. Finally, the symbolism of the national anthem in sports is described.

180. The US says 40% of the work force is Contingent. What does this mean for the future of labor and how does this compare to the rest of the world?

Trent J Garrett, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

My poster will be showing what a contingent job is as well as how companies are changing their structure to better fit these jobs. I will also be showing what companies are looking for in new workers and how automation has changed jobs. I will then compare the US to other countries with their percentages of contingent workers.

181. Too close for comfort: The impact of group entitativity on perceptions of group warmth and competence

Stephanie M. Byers, Psychology, Graduate Student
Benjamin P. Skillman, Psychology, Graduate Student
Mai Vue, Psychology, Undergraduate Student
Dennis Estrada, Psychology, Graduate Student

College of Professional Studies

This research examines group type (intimacy, task, and social category) affect and its interactions with entitativity, the degree of cohesion between group members and their perceptual and cognitive bonds (Lickel et al., 2000; Campbell, 1958). Previous research suggests highly entitative groups are stereotyped differently based on their group membership compared with groups low in entitativity (Crawford et. al., 2002; Fiske, Cuddy, & Glick, 2007). We found that ratings of warmth and competence were similar for intimacy groups and social categories, but task groups were seen as more competent than warm. Overall, a group's degree of warmth is perceived differently depending on its type.

182. Traditional Storytelling

Callista Ruiz, Social Work, Graduate Student

College of Professional Studies

My community project addresses the tradition of oral history through storytelling. There are many families who do not have storytellers within them and can't pass traditional stories on to their children. I have been working with an individual to create a Native American children's storybook. I have gathered data through analyzing local transcripts, articles, and books. Traditional stories have a vital role in culture, community, identity, and wellness. Since time immemorial, storytelling has been a form of passing down traditions, values, and history. These stories not only provide education but is a coping mechanism to the changes that have come over the years. (Walter & Gearhart, 2008)

183. Tri-Mindful: resilience, (re) indigenizing, renewal

Za Lo, Social Work, Graduate Student
Allison Lundahl, Social Work, Graduate Student
Ankita Mylatore, Social Work, Graduate Student
Chelsea Trillo, Social Work, Graduate Student

College of Professional Studies

Tri-Mindful is a community wellness event that will raise money for our Mother (Earth) and our Sisters (Murdered and Missing Indigenous Women). The mindfulness triathlon will consist of: 3k fun run/walk or 5k race, grounding exercise, and a guided meditation. The event will culminate to a space with Indigenous artists, speakers, and activities.

By partnering with Seventh Generation Fund, our aim is to promote: (1) social, economic, and environmental justice for sovereign Tribal communities; (2) community wellness; and (3) holistic healing through the Indigenous traditional contemplative practice.

184. Understanding the Technologies of the Past: ANTH 352 Experimental Archaeology

Barbara Klessig, Anthropology, Faculty

College of Arts, Humanities & Social Sciences

ANTH 352: Experimental Archaeology is an introduction to the principles and applications used in recreating the technologies of the past. Students participate in research, experimentation and experiential components throughout the term. During the course of the Spring 2018 class, students designed and implemented experimental archaeology projects that included wattle and daub construction, ceramic production and materials, consumables including food, bread and mead, ethnographic and archaeological instrument construction, ship-building, book binding, textile production, and ancient weapon technologies.

185. Unearth the Ruins of Animal Agriculture in the Amazon

Christi Dawn Nash, Environmental Science and Management: Environmental Education and Interpretation, Undergraduate Student

College of Natural Resources & Sciences

According to the Rainforest Alliance, agriculture drives 80% of all deforestation on earth. Animal agriculture in particular is responsible for 14.5% of all global greenhouse emissions. Cattle ranching specifically is the greatest driver of deforestation in the Amazon rain forest. This poster was designed with the hopes of serving the

Rainforest of the Americas exhibit at the Los Angeles Zoo, informing visitors that food choices can make a difference in helping or hurting the Amazon rainforest and wildlife habitat. Reducing cattle farming is one major key to sustaining our planet for future generations. Plant-based diets have been found to have less impact on resource usage and emissions.

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186. Using a UAV to Calculate a Very Low Hydraulic Gradient in a Coastal Karst Aquifer System: The Yucatan Aquifer System Example

Isabel Contreras, Environmental Resources Engineering, Undergraduate Student

College of Natural Resources & Sciences

This research project explores the feasibility of using UAV's (drones) to measure the hydraulic gradient in the Yucatán Peninsula Coastal karst Aquifer system. This karstic groundwater system is highly vulnerable to contamination by tourists and the growing local population. Although the hydraulic gradient does not necessarily predict groundwater flow, it is a good indicator as to groundwater flow directions. Determination of the hydraulic gradient is explored through the use of a UAV (Phantom 4), in combination with a DGPS (used to obtain the ground control points). Results using the drone without ground control points give an error that is in the tens of meters range.

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187. Using qualitative clast and soil descriptions to investigate Tertiary gravels of the Klamath Peneplain erosional surface in Humboldt County, northwestern California

Dana Jane Christensen, Geology, Undergraduate Student

College of Natural Resources & Sciences

Southern Cascadia marks the change between the northern San Andreas Fault System, and the subduction of the Juan-de-Fuca and Gorda tectonic plates beneath North America. This area is a region of complex deformation, high rates of erosion, and vertical uplift. A low relief, heavily dissected, relict surface that is visible as gently sloping ridges preserved along the coast of Southern Cascadia is known as the "Klamath Peneplain", named by J.S. Diller in 1902. Because it represents a time period of extensive fluvial erosion and deposition, its age and origin are crucial in understanding paleogeographic development of what is now Southern Cascadia and was qualitatively described in this study.

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188. Using thermography to measure stress responses

Julia Kandus, Psychology, Graduate Student
Melissa Martin, Psychology, Graduate Student
Benjamin Skillman, Psychology, Graduate Student
Carmen LeFevre
David Perrett
Amanda Hahn, Psychology, Faculty

College of Professional Studies

The the human body undergoes a suite of physiological changes during stress, including changes in blood flow. These changes in blood flow may be detectable using new thermal imaging techniques. The present study was designed to determine the time-course and topography of temperature changes in the face during the experience of a psychosocial stressor. Our results suggest that thermography may offer a non-invasive method for assessing arousal. This study is an important first step in assessing the sensitivity of this technology to various affective states. Additional research measuring different emotions is needed to determine the applicability of this technology in the public sector.

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189. Visions of Empowerment

Shannan O'Neal, Social Work, Graduate Student

College of Professional Studies

Utilizing Photovoice, my project supported youth exploration of the causes creating problems faced locally, as well as the ways in which the youth feel we can come together to help find solutions as a community. Through a series of focus groups, photography, and photo analysis, the youth chose a contemporary challenge that either affected them personally, or their community, and took photos of what they felt are possible causes and solutions to these social problems. This method allowed the youth to bridge connections with their community and was a form of empowerment research that supported building their self-esteem, relationship with their community, and their problem-solving skills.

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190. Watershed Base Plane

Matthew, Environmental Studies, Undergraduate Student

College of Arts, Humanities & Social Sciences

Surveying Campbell Creek watershed, located in north eastern Humboldt county on the edge of the Hoopa Indian Reservation, implementing mitigation plans for conservation and restoration. There are many environmental impacts that are hazardest to the water runoffs and aquifers such as legal/ illegal cannibus grow, illegal solid waste dumping, and sedimentation from old logging roads. Building maps would provide baseline information for measuring activity that can be harmful to the ecosystem that provides an abundance of resources for a complex bio-diversity and cultural resources for the Hupa Tribe.

191. We Are Your Community

Erin Youngblood-Smith, Social Work, Graduate Student
Amy Mathieson, Social Work, Graduate Student

College of Arts, Humanities & Social Sciences

For our project we want to focus on bridging divides between students of color and the community. To address this need, we are designing a media campaign called "We Are Your Community." This media campaign will consist of posters in business windows, short videos on social media and a website, and a community building event where students and community members can interact. The media campaign will highlight the stories of students of color and the nuances of their positive and negative experiences in Humboldt County.

192. Weigh the Waste

Maria Herrera, Zoology, Undergraduate Student

College of Natural Resources & Sciences

Weigh the Waste is an event that will take place at different dining locations at HSU during earth week. The purpose of this event is to educate students about food waste by weighing their waste and providing them with additional resource on how they can reduce their food waste. Its important to start a dialog on campus about reducing food waste. Limiting food waste is fundamental in leading HSU into a more sustainable campus. Reducing our food waste at each dining location can help reduce our overall greenhouse pollution, as most of the food waste ends up in landfills where it produces harmful gases (CO2 and Methane).

193. What do the Rising Far Right and Populist Movements Look Like?

Samuel Dorsey, Political Science, Undergraduate Student

College of Arts, Humanities & Social Sciences

I am working with a Political Science research fellowship to map the incipient far right and Alt-Right. Finding points of opposition, commonality, and differences between the various groups.

194. When I Grow Up...

Carolina Arenas, Social Work, Graduate Student

College of Professional Studies

Rural communities often have a limited number of trained and certified healthcare professionals to serve the local population. Additionally, retaining healthcare professionals becomes an added challenge once recruited into the area. The purpose of this project is to create an inclusive and empowering curriculum in partnership with Del Norte Health Career Pathways, to introduce elementary school students to healthcare careers with the goal of promoting the development of local professionals in underserved communities. Each lesson is designed to promote self-reflection and provide age appropriate life skill tools, including mindfulness activities and a reflective journal.

195. Women's Intrasexual Competitiveness Tracks Changes in Their Testosterone Levels

Hannah Ferguson, Psychology, Undergraduate Student
Karina Gigear, Psychology, Undergraduate Student
Ben Jones
Lisa DeBruine
Amanda Hahn, Psychology, Faculty

College of Professional Studies

To investigate the role of hormones in female intrasexual competition, we carried out a longitudinal study of changes in intrasexual competitiveness (Study 1) and assessed intrasexual competition in women using various forms of hormonal contraceptives (Study 2). Study 1: Multilevel modeling of the data revealed a significant, positive within-subject effect of testosterone on intrasexual competition, indicating that women reported greater intrasexual competitiveness when testosterone was high. Study 2: No significant differences were observed for reported intrasexual competition among women using combined oral contraceptives versus women using progesterone-only contraceptives.

Musical Performances | Library 1st floor (Lobby) • 3:20-5:00 pm

Introduction and Rondo in A minor, Op 2, No. 3 — **Dionisio Aguado** (1784-1849)
Adrien Bouissou, guitar

Mozart all Turca Jazz — **Fazil Say** (b. 1970)
Max Marlow, piano

Nuages — **Roland Dyens** (1955-2016)
Hawk Silverdragon, guitar

Prelude and Fugue in D Major, WTC book II, BWV 874 — **Johann Sebastian Bach** (1685-1750)
Chuang Li, piano

Stars — **Lauren Wieland**
The Playground — **Lauren Wieland** (b. 1986)
Danny Gaon, bassoon • Isabella Montovani, bassoon • Lauren Wieland, bassoon
Luke Smetana, bassoon • Raili Makela, bassoon

On the Sunny Side of the Street — **Jimmy McHughes** (1894-1969)
Shelby Crawford, mezzo-soprano • John Chernoff, piano

Sonata in F Major, Op. 25 "Spring" — **Ludwig van Beethoven** (1770-1827)
Adagio molto expressive
Scherzo: Allegro molto
Hanah Rolf, violin • John Chernoff, piano

"Ach! Ich fühl's" from Die Zauberflöte — **Wolfgang Amadeus Mozart** (1756-1791)
Helen Kimber, soprano • John Chernoff, piano

Feathers and Wax (2015) — **Amanda Harberg** (b. 1973)
Rebekah Lopez, flute • John Chernoff, piano

"No One is Alone" from Into the Woods — **Stephen Sondheim** (b. 1930)
Melanie Eastman, soprano • Helen Kimber, soprano • Caitlin Pyle, soprano • Nichole Riffenburgh, mezzo-soprano
Samuel L. Brown II, tenor • Victor Guerrero, tenor • William English III, baritone • John Chernoff, piano

Concerto for Flute and Orchestra (1934) — **Jacques Ibert** (1890-1962)
Allegro
Ahtziri Ramirez, flute • John Chernoff, piano

Rhythm Song (1982) — **Paul Smadbeck** (b. 1955)
Richard Rios, marimba

Ricercar (1576) — **Andrea Gabrieli** (1532-1585)
Ryan Blake, trumpet • Collin Kirkwood, trumpet • Auston Tague, french horn • Josh Burk, euphonium

"First Date/Last Night" from Dogfight — **Benj Pasek (b. 1985) and Justin Paul (b. 1985)**
Nichole Riffenburgh, mezzo soprano • William English III, baritone • John Chernoff, piano

HSU Sculpture Walk Sculptures: All Floors · 3:00-5:00 pm

Guided Walk Library 1st Floor (Lobby) · 3:00 pm

Be sure to catch the annual HSU Sculpture Walk, presented by the University Sculptors Alliance! This event is designed to showcase the wide variety of artwork produced by the HSU Sculpture program and usually occurs April to May of every year, closing with commencement. The Sculpture Walk will take you on a journey through the Library, as pieces are displayed in different locations appropriate for each piece. Once again, you will find that there is an abundance of high quality art created on this campus.

Dance Performances Library 2nd Floor · 3:00 pm

The Dance Department at Humboldt State University presents selected works from Divergence, the 2018 Spring Dance Concert, along with dances from their spring dance classes. This performance will present a variety of styles from comedic modern, to a contemporary dance inspired by the "Me Too" movement, to contemporary ballet and fun jazz.

Theatrical Performances Library 2nd Floor · 4:00 pm

Majors and minors will showcase recent work including scenes from HSU's productions of Avenue Q and the upcoming production of Hay Fever, as well as scenes, monologues, and songs from competitions hosted by the Kennedy Center American College Theatre Festival held in Spokane, Washington.

Student presenters include:

Isaiah Alexander
Savannah Baez
Josh Banuelos
Amy Beltran
Camille Borrowdale
Sarah Burfoot
Madison Burgett-Feagin
Stephen Contreras
Mickey Donovan
William English III
Brianna Fergus
Irma Gill
Connie Hill
Victor Parra
Fiva Pulu
Nichole Riffenburgh
Marissa Sanchez
Jeremy Stolp
Shawn Wagner
Liz Whittemore
Ayanna Wilson

Balance & Wellness in First Responder Agencies

Library 2nd Floor · Room 208

Catherine Munsee, Social Work, Graduate Student
College of Professional Studies

The design of the project is informed by a relational worldview, specifically the work of Vine Deloria who suggests that a circular experience of the world intersects with more linear representations of reality. It is at the places of intersection that opportunities for dialogue occur and the intent of the project is to make the experiences of first responders visible to those who do not have access to this knowledge and experience. The creative work is the construction of an empathic bridge between the community and first responders through poetry in honor of the belief that we are all connected.

Celebration of Writing Hall Library 2nd Floor Fishbowl · 3:00-5:00 pm

The HSU Composition and Rhetoric Program highlights textual, visual, and digital projects created by our students in first-year composition. Students will present videos, podcasts, posters, brochures, and other texts in a variety of genres and mediums.

We Are Your Community Library 3rd Floor • CTL Classroom

Erin Youngblood-Smith and Amy Mathieson, two Masters of Social Work students at Humboldt State University, in partnership with the African American Center for Academic Excellence and Humboldt Area Foundation have created a video interview and poster series sharing the experiences of African American students with the community. Students of color report feeling isolated and unwelcome and experience acts of discrimination in Humboldt County. In light of this and other recent events, the need for student's stories to be heard is now greater than ever. These interviews with four African American students will be used to create a powerful diversity campaign titled "We Are Your Community" with a two-fold focus: first, to build bridges between African American students and community members and second, to increase the visibility and representation of African American students. You can also view the materials and find details for other events, including the May 5th Arcata Farmer's Market exhibit, by following the We Are Your Community Facebook page.

HSU Student Snapshots Library 3rd Floor • CTL Classroom

"Student Snapshots" is a collection of quick 1-minute video stories from HSU students in their own voice. These stories are about the experiences of students as they live in Humboldt County and explore both the county and the HSU campus. Students' experiences are important and need to be shared with the greater area in order to create a shared community. These stories will be gathered over the next few years and we are excited to celebrate this inaugural cohort of storytellers during IdeaFest where we will be screening videos submitted by students during the Spring 2018 semester. In addition to the screening, we will be sharing some tips about creating your own video snapshot and will have equipment and software available for you to try out and/or shoot your own Student Snapshot. View the current Snapshots and learn more about the project, as well as how to create your own video, at libguides.humboldt.edu/snapshots. The live screening will include videos by: Rosibeth Cuevas, Grecia Alfaro, Vanessa Cota, and Philip Santos.

humboldt.edu/ideafest

This event is sponsored by the Office of Research, Economic and Community Development, Marketing & Communications, and the HSU Library, in collaboration with the Colleges.

A special thanks to Theatre, Dance, Music, Creative Writing, and the Sculpture Lab for their contributions to the programming this year!

HUMBOLDT STATE UNIVERSITY