

**2021 Festival of Excellence  
Program and Abstracts  
March 31, 2021**

<b>2021 Festival of Excellence Program and Abstracts March 31, 2021</b>					
<b>School of Business</b>					
<b>Presentation Title</b>	<b>Presentation Abstract</b>	<b>Primary Full Name</b>	<b>Secondary Presenters</b>	<b>Mentor's Full Name</b>	<b>Presentation Type</b>
The Efficacy of Solo Exercise vs Sports in Terms of BMI Outcomes	Although group exercise has been shown to have psychological benefits not found in solo exercise, solo exercise remains vastly more popular than group exercise in the United States (among the portion of the population who do exercise). This may seem problematic to the observer. If, in fact, group exercise carries intrinsic benefits, should it not be equally popular to solo exercise, if not more? Perhaps this disparity in popularity could be due to difficulties in scheduling group exercise, but this is unsatisfying as an explanation. In fact, it may suggest that people generally perceive that solo exercise is more efficacious than group exercise in terms of health benefits. If this is the case, it only makes sense to investigate the truth of this belief. Do solo exercise forms result in better outcomes than group exercise forms? The data used in this study comes from the American Time Use Survey (ATUS) and the Eating and Health Module of the American Time Use Survey, years 2015-2016. According to the United States Bureau of Labor Statistics, "The American Time Use Survey (ATUS) provides nationally representative estimates of how, where, and with whom Americans spend their time, and is the only federal survey providing data on the full range of nonmarket activities, from childcare to volunteering." This study has been performed annually from 2003 to 2019, with over 210,000 individuals participating each year. Essentially, respondents keep a detailed account of their activities for one day, writing down what they do, when, and with whom. Using BMI as the outcome variable representing health effects, this paper comes to the conclusion that solo exercise is not more efficacious than group exercise in a statistically significant sense.	Colby,Meline		Joshua,Price	Oral Face-to-Face
The Effect of Minimum Wage Policy Changes on a State's Unemployment Rate	Policymakers often use statistical measurements like the unemployment rate to express the effectiveness of certain policy implementations. The purpose of this study was to examine the effect of minimum wage policy changes on a state's unemployment rate. Previous research has found varying results regarding the relationship between minimum wage and employment; economic theory anticipates a rise in minimum wage will lead to higher unemployment, but many studies' empirical results are neither robust nor statistically strong. The results of this study conclude that when a state changes their minimum wage, there is a statistically significant decrease in their unemployment rate compared to a state that does not change their minimum wage rate. However, states with active legislation to annually increase minimum wage or states where the minimum wage is indexed for inflation are expected to see an increase in their state unemployment rate compared to states who do not adjust their wages annually.	Caasi,Smuin		Joshua,Price	Oral Face-to-Face
The Impact of the Internet on National Park Visitation	This empirical paper looks at the impact of the proportion of a state's population that has access to the internet in their household and how that impacts that state's national park visitation. It concludes that a 1% increase in the proportion of a states population that has access to the internet leads to an estimated loss of over 400,000 visitors from that state's national park all else held constant.	James,Clark		Joshua,Price	Oral Face-to-Face
High School Extracurricular Activities and Future Success	High School Extracurricular Activities and Future Success	Hailey,Checketts		N/A,N/A	Oral Face-to-Face
Under the Bubble, Does Home Court Advantage Still Exist?	Under the Bubble, Does Home Court Advantage Still Exist?	Da,Huo		Joshua,Price	Oral Face-to-Face
Measuring the Impacts of Therapists: Evidence from a Value-Added Approach	Measuring the Impacts of Therapists: Evidence from a Value-Added Approach	Mitchell ,Zufelt		Jeff,Swigert	Oral Face-to-Face
The Effect Sport Participation has on an Athlete's GPA at SUU	The Effect Sport Participation has on an Athlete's GPA at SUU	Rachel,Smith		N/A,N/A	Oral Face-to-Face
Bye Weeks Impact on Seasonal Success in the National Football League	This study determines the effect of how the point in which a team's bye week during their regular season impacts their chances of making it to the postseason. Two different linear probability regression models are used to find how the independent variable bye week impacts the binary dependent variable of making the playoffs for a given team in a season. One model uses bye week as the week of the bye week while the other categorizes bye weeks into the beginning, middle, and end of season. Logit and Probit models are used to check for robustness within the base model. This study suggests that there is not enough evidence to suggest that the "when" of bye week in a team's schedule impacts that team's chances of making it into the postseason.	Benjamin,Funk		Joshua,Price	Oral Face-to-Face
SPANC: Sports Analytics at SUU	Come take a look at the analytics we have been doing on the athletics programs here at SUU.	Jeffrey,Rowley		Courtney ,Paulson	Oral Face-to-Face
Amazon Review NLP	Mining Amazon reviews for sentiment.	Carson,Butler		Courtney,Paulson	Oral Face-to-Face
Capstone Project on NLP	The objective of the Capstone project is to apply data science techniques in the area of natural language processing and produce a data product that can predict next word after receiving some input text from the user.	jing,Ian		Courtney,Paulson	Oral Face-to-Face
Number Recognition via Neural Networks	My project is using Machine Learning (specifically Neural Nets) to attempt to digitally recognize handwritten numbers of any number of digits.	Colton,Fowler		Courtney,Paulson	Oral Face-to-Face
Soaring to New Heights- SkyWest and ExpressJet M&A	This case study focuses on the acquisition of ExpressJet by SkyWest, diving into financial fundamental factors. The case study process is a great method for students to learn real-world examples simplified into principles that can be implied and practiced in the classroom. This case will give SUU (and other universities) a tool to teach finance undergrad students the principles of cash flows, synergies, acquisitions, WACC, and the basics of the airline industry.	Caasi,Smuin	Cade Nguyen , Dallen Moody, Kyle Clarke	Nathan ,McNamee	Oral Face-to-Face
How much is your Amazon ad actually worth?	I found cliffs in ad spending within customer data supplied by Pattern, to run multiple regressions at product and brand levels to determine an accurate estimate of the real value of Pattern's ad spend on Amazon.	James,Caron		Courtney,Paulson	Oral Face-to-Face
Effect of U.S. Unemployment Rate on Suicide Rate	Although suicide is, by definition, an individual act, it is speculated to be caused by psychological, environmental, and economic factors. This study attempts to identify the effect the United States unemployment rate has on the national suicide rate. Previous research has found that in countries without unemployment benefits there is a significant positive relationship between the two, but what about a country with established aid like the United States? While my initial assumption was that this trend would continue to be positive, I find that when controlling for confounding variables there is no significant correlation between unemployment and suicide, all else held constant.	Jared,Cooksey		Joshua,Price	Oral Face-to-Face
Machine Learning in Educational Video Classification	Utilizing a data set of videos and text files, the goal is to identify and apply tags to educational videos in order to improve business practices and student/teacher outcomes.	Hyrum,Worth		N/A,N/A	Oral Face-to-Face
How to use NLP( natural language processing) to analysis amazon reviews	A basic introduction on how to use NLP to analyze amazon reviews. I will go through some data pre-processing and results in analysis(LDA, N-grams, sentiment analysis).	Zihao,Li		Courtney,Paulson	Oral Synchronous Remote
Latent Dirichlet Analysis	general introduction about how to using Latent Dirichlet Analysis by Python.	Hao,Wu		Courtney,Paulson	Oral Synchronous Remote
The Importance of Diversity, Equity, and Inclusion	This presentation will introduce the ideas of diversity, equity, and inclusion and examine the importance relating to educational contexts. To examine the current progress and potential complications in regards to diversity, equity, and inclusion a climate survey is being developed for the SUU School of Business.	Katie,Hill		Courtney,Paulson	Oral Synchronous Remote
<b>College of Science</b>					
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Investigating Mutual Inductance Coefficients using Theta Pinches	Theta pinches are devices that are frequently used in science demonstrations. Theta pinches used to crush metal objects have not been used for anything more than crushing empty aluminum cans, our experiments will push the capabilities of a theta pinch to its limits. In order to do this, we have created a modular Theta pinch that allows for different coils of wire to be attached to our capacitor. By varying coil loop density, wire gauge and maximum voltage in the capacitor, experimental values for coefficients of mutual inductance can be found. These can be compared to measured can deformation values determined by a known pressure, allowing for the efficiency of the Theta pinch to be determined. These values can then be used to optimize Theta pinches for the crushing of various other metal objects. This work is currently ongoing.	Thayne ,Hansen	Shaun Cluff	Theodore ,Lane	Demonstration Face-to-Face
SUU: A History Through Maps	SUU has a history tied with the first pioneers to settle the area that is now Cedar City. However, much has changed since the Branch Normal School first held class at the Old Ward Hall. My project has been to rediscover and chronicle SUU's campus change and growth and represent that history visually, through a map. This map blends a history project with location data to tell the story of our school.	Ashleigh,Smith		David,Maxwell	Demonstration Face-to-Face
Native Plant Garden	Native Plant Garden: Demonstration showing how to care for native plants (to be held at the SUU Native plant garden).	Matt,Ogburn	Fred Govedich, Angela Patino	N/A,N/A	Demonstration Face-to-Face
Second Chances: A Brief Look into the Reintroduction of Wolves into Yellowstone National Park	A narrative of the little known journey man has taken to recognition regarding his impact on ecosystems of the world, his failures, and repentance.	Elizabeth,Young		N/A,N/A	Oral Face-to-Face
The Henry Mountain Laccoliths	Laccoliths are a mass of igneous rock, typically lens-shaped, that intrude conformably between rock strata causing uplift in the shape of a dome. The formation of laccoliths have been challenging to comprehend. While many researchers have attempted to answer questions regarding the formation through wall-rock deformation, few have delved into the geochemistry of the intrusions themselves. We plan to use the geochemical characteristics to determine the age and architecture of the intrusion. The term laccolite was first used by Grove Karl Gilbert after his study of intrusions of diorite in the Henry Mountains of Utah in 1875. The Henry Mountains have been the site of many structural, thermomechanical, and geomorphological studies and thus provide a great framework for our geochemical exploration. This location is ideal because the laccolith is well exposed and previous research has mapped out multiple intrusions based on spatial distribution. We so far have collected field samples from four of the eleven known intrusion sites. Our goals are to 1) confirm the number of intrusions that make up the Henry Mountains, 2) determine the age of the intrusions, and 3) use the geochronology to determine the timescale of the intrusion(s). To do this, we will be prepping and examining our samples through various geochemical data extrapolation methods such as bulk-rock XRF analysis, electron microprobe analysis, and U-Pb zircon age analysis. Beginning this research project has opened the door to continued years of similar research in the Henry Mountain range. Future research could include more extensive intrusion sample collection and analysis that will not only further detail the geologic story of the Henry Mountain range, but also for various other laccolith type intrusions throughout the South West that relate on the geologic time scale.	Cooper,Maitoza	Gregory Guzzle, Chris Carey	Jason,Kaiser	Oral Face-to-Face
Laser Mediated Photochemistry: Exploring the Isomerization and Decaying Behavior of Dipyrrroles	Chemical compounds have a variety of properties and behaviors when excited by photons to accommodate the increase in energy; some isomerize to a different structure, some decay non-radiatively, and others may fluoresce, to name a few possible pathways. Some compounds that are particularly efficient at transferring this energy are light harvesting bilins found in cyanobacteria and some varieties of algae. In this project, we are focusing on the light-activated behavior of a specific dipyrrrolic bilin subunit, referred to simply as DPY, in dichloromethane and acidic methanol solvents. This subunit has the potential to form three different conformational isomers about its methine bridge: the most stable ZZ isomer, the ZE isomer, and the EE isomer. In this work, we have used a diode laser to selectively excite the dominant ground state ZZ isomer, initiate photo-isomerization to one of the other conformations, and track this isomerization in time via UV-Vis absorbance spectroscopy. Results from this experiment corroborate previous studies that suggest the product is the EE isomer formed by going through a concerted twist upon photon excitation. To test the reversibility of the photochemistry, the same experiment was performed specifically on the EE isomer. The goal of this is to give insight to the possibility of making controllable chemical photoswitches with a chemically simple framework. From our experimentation, we tentatively surmise that the EE photoproduct is formed following excitation, and its dimerization propensity is enhanced relative to its ZZ counterpart. This tentative conclusion is due to the appearance of a new unique red-shifted band in the transient absorption spectrum, and the absence of the usual ZZ isomer peak following the second set of excitations. These data provide ample information in relation to the structure-function relationship and its application in biological photo reception and chemical dynamics.	Taime,Clark		Jacob,Dean	Oral Face-to-Face
Resilience During a Pandemic: A Disruptive "Silver Lining"?	The COVID-19 pandemic has disrupted the traditional model of university teaching. This disruption has created numerous hardships (e.g., physical and mental health, financial, social) for educators and students alike, which have collectively tested their respective abilities to adapt to, and recover from, these hardships (viz. their resilience). The disruptions from the pandemic, however, have also required students and educators to rethink the traditional model of university teaching, which could be perceived as a "silver lining" to an otherwise devastating situation. For example, the pandemic necessitated a widespread experiment with hybrid and remote instruction. This experiment afforded students an opportunity to work independently and at their own pace, which made them better problem-solvers. This experiment also forced educators to become more flexible and to develop more explicit instructions, which made them better teachers. While the pandemic certainly disrupted traditional model of university teaching, such a disruption may have led to several innovations and may have helped build resilience among educators and students alike.	Jamie,Spinney		N/A,N/A	Oral Face-to-Face
Investigations Into the Negative Oxidation-Reduction Potential of Alkaline Water	Proponents of the "alkaline water" health fad will claim that drinking alkaline water is good for you, because it will neutralize acid in your bloodstream or slow bone loss or even prevent cancer. There is little to no evidence to support any of these claims, but the alkaline water does have both a pH of 9 and a negative oxidation-reduction potential. As the advertisers put it, the cause of this -ORP is "solvated electrons," but as that isn't possible, the actual cause of this negative potential is a mystery. We ran a series of tests on the buffer capacity, reduction potential, and conductivity, as well as used spectroscopic techniques to determine the compound or compounds causing the negative ORP in alkaline water.	Al,Jackson		,	Oral Face-to-Face
Using Silver Nanoparticles to Detect Early Onset of Disease	Silver nanoparticles are of interest because of their chemical, antimicrobial, and other properties. We have developed a method to fabricate silver nanoparticles using a microfluidic device made of PDMS. Through this method, we can consistently form high concentrations of nanoparticles of the same size and shape using common reagents for silver nanoparticle fabrication (silver nitrate, sodium hydroxide, ascorbic acid, and a specific capping ligand, which coats the outside of the nanoparticle, determining its final size and shape). Citric acid is commonly used as a capping ligand, but we have tested several non-conventional ligands, including common biological molecules. Specifically, we have compared a lipid (1,2-dioleoyl-sn-glycero-3-phospho-L-serine), a vitamin (vitamin B), and several proteins (BSA, Casein, and IgG) and have observed differences in the nanoparticles produced when using these capping ligands. We can identify these differences by examining the nanoparticles' abilities to fluoresce using fluorescence spectroscopy. We observed that nanoparticles made from the distinct proteins fluoresced differently. We have examined the effects of diluting the concentration of nanoparticles and have found that as the nanoparticle solution is progressively diluted, the fluorescence spectra shows a trend of blue-shifting / increase in intensity, followed by stabilizing at approximately $\lambda=460\text{nm}$ / decrease in intensity. We have also examined the nanoparticles formed from mixtures of ligands (protein/protein mix and lipid/protein mix) and have observed that these nanoparticles fluoresce differently than nanoparticles formed from each of the pure capping ligands. Our objective is to identify distinguishing features between the fluorescence of nanoparticles fabricated using different biological samples as capping ligands, with the vision that this research could lead to new methods of identifying diseases at early stages by comparing the fluorescence of nanoparticles created from samples of subjects believed to have a disease to those who do not.	Jonah,Babbel	Payton Riggs, Porter Wilkes	Christopher, Monson	Oral Face-to-Face
Changing the Paradigm on Copper Nanoparticle Formation	Copper nanoparticles have a variety of uses and applications in many different fields. Current fabrication methods start with copper ions and build them up to the desired nanoparticle size. We developed a new way to synthesize copper nanoparticles starting with a sheet of solid copper and sonicating it in hydrochloric acid. While copper is a relatively unreactive metal and isn't known to react with HCl, this method has been found to break down solid copper into nanoparticles in a predictable fashion. Using UV-Vis and fluorescence analysis as well as atomic force microscopy, we were able to determine that nanoparticles are being created and that the concentration of HCl affects their formation. Additionally, these nanoparticles are stable over long periods of time, unlike traditionally fabricated nanoparticles which tend to decompose relatively quickly. Furthermore, preliminary data suggests that the nanoparticles may be able to catalyze the formation of additional nanoparticles under certain conditions. We are currently further exploring the properties and fabrication of these nanoparticles.	Jessie ,Fischer	Tanner Stenlund	Christopher, Monson	Oral Face-to-Face

Full STEM Ahead! K-12 STEM Outreach in Southern Utah	<p>Since our founding in 2014, the Southern Utah University STEM Center for Teaching and Learning has been committed to bringing STEM to southern Utah through outreach events, professional development, and high-quality STEM programming.</p> <p>Whether we're introducing kids to creatures through our Animal Ambassadors, bringing STEM resources and equipment to teachers through our extensive lending library, helping with homework through our online tutoring program, getting kids outdoors through Range Camp or Cedar Mountain Science Camp, or showing students the far reaches of the universe in our mobile planetarium, the STEM Center wants to help expand your world.</p> <p>In this presentation, STEM Center staff and student leaders will highlight some of the programs, events, and other avenues of outreach that have kept us busy over the last year as well as exciting things on the horizon. We'll also highlight ways to get involved and how important STEM education and accessibility is for everyone.</p>	Elaine,Vickers	Members of the STEM Student Leadership Board (to be determined)	N/A,N/A	Oral Face-to-Face
Analysis of Educational Outcomes in Human Anatomy Labs During the COVID-19 Pandemic: How Histology Grades Varied Among Students in Different Lab Settings (Face-to-Face Versus Remote-Synchronous Online Delivery).	<p>The worldwide COVID-19 pandemic dramatically changed the learning modality of many collegiate courses. Classes once taught in-person shifted to online remote learning with the hope that students would continue to receive quality educational experiences and success. Specifically, pre-pandemic, Human Anatomy lab courses at Southern Utah University (SUU) were taught on campus in a strictly face-to-face format where students had access to hands-on models, microscopes, and other resources. After the COVID-19 pandemic forced some lab sections to transition to online remote-synchronous learning, a quantitative study was performed at SUU analyzing the effects of modality differences (in-person vs. online) on student grade performances with respect to histology quiz grades.</p> <p>Introductory histological study in SUU's beginning Human Anatomy course has traditionally been an area where students struggle with academic success and learning. This section of material was specifically chosen due to the dramatic difference in learning materials available to students completing this lab in these contrasting educational modalities. In-person students learned histology in a traditional setting with compound microscopes and slides, while online students lacked hands-on resources and learned histology through tissue slide pictures and interactive website activities.</p> <p>Average student histology quiz grades from 27 consecutive semesters sections for both in-person and online remote-synchronous Human Anatomy labs were analyzed and modality differences were compared. A significant difference in mean student histology quiz scores taken in-person versus quiz scores taken online was found. The results of this study demonstrate the benefits of learning histology in a face-to-face hands-on approach. This quantitative methodology can be applied to other aspects of Human Anatomy lab to help understand the potential benefits and limitations of teaching this course remotely.</p>	Brayden,Koch	Mary Jo Tufte Jennifer Mraz-Craig	Mary Jo, Jennifer, Tufte, Mraz-Craig	Oral Face-to-Face
Accessibility in Forest Inventory and Analysis (FIA) at Southern Utah University (SUU)	<p>Section 508 of the Rehabilitation Act of 1973 states that all federal agencies must make their information and communication technology accessible to users with disabilities to ensure comparable experiences for users with and without disabilities ("What is Section 508 and Why is It Important?," 2021). As part of the U.S. Forest Service, the Forest Inventory and Analysis (FIA) program collects, analyzes, and reports on various data about U.S. forests and has worked to create applications and websites that make this information available to stakeholders - such as regional leaders and when appropriate, public users. Ensuring FIA data applications are accessible to those who need it is one of the main responsibilities of SUU's cooperative partnership with FIA. To ensure applications such as the Design and Analysis Toolkit for Inventory and Monitoring (DATIM) and other Forest Service applications are Section 508 compliant, SUU research assistants are continually developing testing protocols and processes that consist of collecting testing inventory of application pages, using testing tools, and completing documentation. Through this analysis we aimed to learn about Section 508 processes by discovering what SUU is doing to help students with disabilities. To do this, we talked to SUU staff about the experience that they have pertaining to students with disabilities, as well as compiled relevant internet research regarding FIA and 508 processes. The goal of this research was to learn more about what SUU has done for the accessibility of its students, and what FIA is doing for the public, as well as their employees. Using both the research and the findings from SUU staff, we looked for accessibility standards that SUU is implementing well and what SUU could implement further to benefit its students. Section 508 principles found beneficial at SUU will be presented to FIA for potential implementation.</p>	Carlie,Jaussi	Hannah Misi, Nethaneel Taylor	Ashley,Tyler	Oral Face-to-Face
Engineering a microbial fuel cell to reduce methane production in waste water	<p>Microbes have the ability to oxidize a huge variety of compounds, including many found in waste water. In a microbial fuel cell, the electrons from these oxidation reactions are shuttled into an anode. When the anode is connected to a cathode, the electrons can be used to reduce O<sub>2</sub> gas to water, and an electrical current is produced. We propose to construct a fuel cell containing a microbe, Methanosarcina mazei, that lives in anaerobic environments like the sludge at the bottom of a hog waste treatment lagoon. M. mazei oxidizes compounds produced by other microbes, and produces the greenhouse gas methane. We will add redox mediating compounds called phenazines to our fuel cell, to try to divert electron flow from methane and into production of electricity and water instead. The genes encoding phenazine biosynthetic enzymes will be cloned from Pseudomonas aeruginosa and expressed in Escherichia coli. Besides being the source of phenazines, our E. coli expression system will give us a convenient control as we construct our fuel cell.</p>	Jessica ,Hertig		Elizabeth,Pierce	Oral Face-to-Face
Sessile Bacteria, Chemical Analysis and Stream Flow Data, Putting Coal Creek in Perspective	<p>Coal Creek originates in Cedar Canyon and passes through Cedar City, terminating in Lake Quichipa. Although some tributaries contain life, there is no noticeable life in the creek. For years, samples have been collected and analyzed to find changes in anolyte concentrations over time, which may be a cause to the lack of life. Available data, along with new samples, are being analyzed. We have analyzed trends in total dissolved solids, cations (by Flame AA), and anions (by IC). Additionally, data on total nitrate, which has not been previously tested, will be analyzed. The results of these analyses will be presented. Recently, sessile bacteria have been collected in the various streams of coal creek. Some of these samples have been mass sequenced using the program Mothur. Preliminary Mothur analysis and stream data analysis will be presented along with additional chemical data.</p>	Jonathan,Shipp	Doran Durrant	Kim,Weaver	Oral Face-to-Face
Petrographic and Geochemical Analysis of the Harmony Hills Tuff	<p>The stratigraphy of the southern Great Basin Ignimbrite Province is very well exposed in Condor Canyon of eastern Nevada. These ignimbrites represent large-scale silicic volcanic activity that spanned the Oligocene and early Miocene. The Harmony Hills Tuff is one of many ignimbrites in the region, yet it represents the most chemically primitive and most crystal rich of the sequence. Given the increase in viscosity with increasing phenocryst content, this texture begs the question "Why did the Harmony Hills Tuff erupt?" In addition, the Harmony Hills Tuff provides an opportunity to gain insight into the nature of magma chambers that are close to transitioning from the volcanic to the plutonic phase in their life span. Preliminary research of the Harmony Hills Tuff has provided us with important observations: The unit is remarkably homogeneous from the base to the top of the section; it is extremely crystal rich (&gt;50% crystals), and is relatively mafic (chemically primitive) relative to other ignimbrites of the region. Through observations of these crystals, we have found evidence for magma mixing and mingling. Ongoing investigations of data from electron microprobe analyses continue to shed light on magma conditions prior to eruption. These conditions suggest an intrusion of hot, primitive magma as the trigger to the eruption of the Harmony Hills Tuff. The added heat would have mobilized the otherwise immobile magma, creating one of the largest eruptions of its kind in the geologic record.</p>	Tess,Johnson	Tess Johnson, Greg Kaiser	Jason,Kaiser	Oral Face-to-Face
Trying to Drown a Fish: an analysis of the total mercury concentration of Southern Utah fish using ISP-MS.	<p>The concentration of mercury in fish has been of growing concern in recent decades. In Utah specifically, 21 of 332 tested bodies of water were found to have fish with elevated concentrations of mercury within the last 20 years. Given the drastically harmful effects of mercury poisoning, especially in young children, regularly monitoring the mercury aggregation in fish is of considerable importance to both natural ecosystems and public health. Several samples of fish were taken from multiple bodies of water in Southern Utah to be analyzed for total mercury concentration. Meat and kidney samples were extracted from each sample and analyzed using inductively coupled plasma mass spectrometry (ISP-MS). This presentation details the overall procedure and results obtained from our quantification of the total mercury concentration in fish and compares them to national averages of freshwater fish as well as FDA-approved standards.</p>	Jack,Nielsen	Timber Bailey, Shardon Morrill	Kim,Weaver	Oral Face-to-Face
Identifying Factors Contributing to Spatial Patterns of Mule Deer-Vehicle Collisions	<p>Identifying Factors Contributing to Spatial Patterns of Mule Deer-Vehicle Collisions Habitat fragmentation caused by Utah road systems contributes to wildlife-vehicle collisions (WVCs) with Rocky Mountain mule deer (Odocoileus hemionus hemionus), costing millions each year in damage, death, and injury to humans and animals. Our research focuses on identification of ecological and physical factors driving WVC density with the goal of suggesting road mitigation measures that could be implemented by the state. Our hypotheses were that vegetation, topographic roughness, and status of fences along roadways affect WVC density and distribution. Our team gathered data on fence status along Highways in Southwest Utah. We also calculated summary statistics of topographic roughness and vegetation using remotely sensed elevation and landcover data. We used this data to build models to predict the density of WVC incidents along Highways 18, 20, 21, 56, and 130 as measured by the Utah Department of Transportation. We supplemented this with photographic and video data captured from wildlife cameras around significant WVC hotspots and a GPS dash camera. We imported our data into the R environment to compile and model our data via multiple regression and model selection, to identify factors that best predict WVC density based on these highways. Preliminary results based on Highway 56 suggest that of the variables we tested, fencing and topographic roughness were the most important predictors of the presence of WVC hotspots. Our top models also contained vegetation density at 15-20 m, but generally not less than 15 m, and we found that general vegetation cover density was a poor predictor of WVCs. This work will allow us to make recommendations to road planners on the locations of potential mitigation structures, such as appropriately sized culverts or revised fencing, which could significantly reduce risk to drivers and wildlife.</p>	Michael,Christiansen		Karl,Jarvis	Oral Face-to-Face

Determination of Molybdenum Soil Distribution Near Milford UT	In addition to being an essential micronutrient, Molybdenum (Mo) is a cofactor in nitrogen fixation and is highly soluble when oxidized. The primary factors affecting the elements distribution in the soil remain unknown. This work sets the basis for understanding of the Mo in soils near a geologic sources near Milford, UT. Soil samples were, digested, by EPA method 3050 Band filtered then measured for Mo part per billion ug/ml by ICP-MS. Resulting Mo concentration maps show that the local geology of the study area	Brandon,Johnson	Sydney Rowley	Kim,Weaver	Oral Face-to-Face
Theoretical analysis of resonance energy transfer (RET) for optimizing sensitization of oxygen.	Methylene blue has the ability to sensitize oxygen in living tissue after being exposed to light at an efficiency of 50%. Due to this characteristic methylene blue is widely used as a photo-therapy agent in the fight against cancer. In order to increase the efficiency of methylene blue to greater than 50%, or expand the range in which methylene blue absorbs light, it will be combined with other dyes or elements, such as rhodamine 6G. Initially, spectroscopy methods such as UV-vis and fluorescence spectroscopy were used to determine improvements in the potential sensitizing behavior. With this information these dyes were then combined and excitation spectra was performed in order to determine if energy transfer via resonance energy transfer has occurred. However several attempts proved futile, indicating that the concentration, dimerization mechanism, and/or structural factors of the dyes was not enough to form the necessary dimer needed for resonance energy transfer to occur. This prompted a computational analysis via Gaussian 16 to investigate the following: at what concentration will the dimers form in order for resonance energy transfer to occur, and what conformer will be thermodynamically the lowest possible energy state? Theoretically the dimer at the lower energy state will need to be a viable candidate for the successful transfer of energy to, in turn, either increase the efficiency of the sensitization of oxygen, or allow for alternative paths for methylene blue to be excited.	Hamza,Samha		Jacob ,Dean	Oral Face-to-Face
Determination of anion concentrations in Coal Creek	Natural bodies of water contain a variety of different anions in different concentrations. Concentrations vary week to week depending on weather and the sediments present at the different locations. Six different anion concentrations were determined using Ion Chromatography. These anions were chloride, fluoride, nitrite, nitrate, phosphate, and sulfate. Samples from eight different locations along Coal Creek were taken weekly over the course of six weeks.	Taylor,Jensen	Jacob Newey, Hailey Harmon	Kim,Weaver	Oral Face-to-Face
The Concentrations of Chlorophyll in Southern Utah Creeks and Lakes	Chlorophyll a. is an important pigment that exists in all plant life. Study of chlorophyll is an efficient way to determine the concentration of phytoplankton in water samples. The concentration of phytoplankton in water can help make an evaluation of the water quality and the overall quality of the ecosystem. We will be collecting samples from local creeks and lakes to compare the concentrations of phytoplankton in Southern Utah. With these comparisons we hope to make inferences about the amount of life and overall health in each ecosystem.	Jamison ,Murray	Dallin Dodge	Kim ,Weaver	Oral Face-to-Face
Improving, Expanding, and Updating the Southern Utah University Campus Map Through GIS	The Southern Utah University campus map is a form of communication used by the university to enable students, faculty, and members of the community to find locations and information about events on campus such as concerts, classes, and the Utah Summer Games. By examining the current map, we identify features and information that are available to improve the functionality and representation of the SUU campus map. Using ArcGIS Pro by ESRI and their numerous online applications, several versions of the campus map were created to be used both on the web and in physical applications placed around campus. Imagery of campus was taken by flyovers in 2015 and in 2019 and combined to be used in the base map. Computer Aided Design (CAD) data is used to map each floor of every building and provided by facilities management with the imagery. Rooms were classified according to their relationship to the needs of students such as lecture halls, academic support, and computer labs. Using key words for buildings and rooms, a searchable database was created allowing users to find rooms important to academics. In addition to updating buildings, parking and landscaped areas were updated on campus to show recent changes and the availability of parking. Updates were made using the latest imagery incorporated into the basemap. All data was provided by facilities management and the map was produced with the assistance and guidance by David Maxwell.	Joseph,Spendlove		David,Maxwell	Oral Face-to-Face
Fear Tactics in the classroom	In today's education system there is a common problem that is found throughout all levels. That problem is fear in the classroom. Many teachers have used different tactics to help motivate their students to be successful in their courses. Some of these tactics are helpful, but some of these tactics can be harmful. Also many times these tactics are classified as fear tactics. The definition of a fear tactic is "a strategy to manipulate public opinion about a particular issue by arousing fear or alarm (The facts about scare tactics, 2015)". From past research done on fear tactics it is supported that "fear tactics when used over a short period of time is beneficial to the student's performance. It also supports that distinguishing fear is a good thing. It is a sign of healthy development (Hunt, 2006)". "When fear tactics are used over an extensive period of time it then will cause the student's performance levels to decrease (Bledsoe, 2014)". From this information we are able to gain a broad view of what a fear tactic is. But from the research we have been conducting for the past year we have been able to learn more of these fear tactics and narrow down to what a fear tactic actually is and what it takes for one to be helpful or harmful.	Tanner ,Jefferies		N/A,N/A	Oral Face-to-Face
Incorporating writing-intensive pedagogy in an ecology lab: Effects on attitudes to writing, writing behaviors, and scientific thinking	In the fall of 2019, I received a curriculum innovation grant from the SUU Center of Excellence for Teaching and Learning (CETL) to incorporate evidence-based writing-intensive pedagogy in the Ecology Lab, a course that also follows the course-based undergraduate research experience (CURE) model. In this course, students work collaboratively on a research project that takes that entire semester to complete, following a complete iteration of the scientific method from hypothesis formation, to data collection and analysis, to dissemination through a paper and oral presentation in a professional, scientific format. Specifically, students collected data about plants, animals, and soil for one month at the Three Peaks Recreation Area, a BLM property northwest of Cedar City, to determine the niches of five species: black-tailed jackrabbit, Utah juniper, piñon pine, great sagebrush, and orange lichen. The research paper that they produced was assigned in sections: Introduction, Methods, Results, and Discussion, corresponding to which part of the scientific method they were currently practicing in lab to facilitate deeper analytical thinking. Students have previously received instruction on the content of these sections; in the fall, I also added important components of writing-intensive pedagogy. Namely, I added implicit instruction on writing clearly, frequent instructor feedback, peer reviews, and opportunities for students to reflect on their process. Students then revised their drafts to produce a final draft of all sections combined at the end of the semester. Most students reported that they believed that their writing improved, although a survey of writing attitudes and behaviors administered before and after the class demonstrated little change over the semester in these metrics. I will discuss specific writing and scientific learning reported by students, things that I learned, and changes I have made since.	Rachel,Bolus		,	Oral Face-to-Face
Using the Great Basin Observatory for Double Star Astronomy	Southern Utah University is partnered with four other universities to manage and operate the Great Basin Observatory. As such, SUU has priority access for research to the remotely operated GBO. Double star astronomy considers pairs of stars that appear close to each other when viewed with an optical telescope from Earth. The intention of our research is to characterize the interaction, if any, between the stars. Our end goal is to find an orbital solution based on observation and historical data of the target stars. Double star research provides a convenient path to introduce students new to astronomy to the basics of astronomy research. A secondary objective is to establish a well defined procedure for conducting double star astronomy such that future students can follow the same process to conduct their own astronomy research. Historical data will be provided by the Washington Double Star Catalog (WDS), and findings will be published to the Journal of Double Star Observations (JDSO).	Jaxton,Maez		Rhett,Zollinger	Poster Face-to-Face
Burn Scar: An Assessment of a Course-Based Undergraduate Research Experience on the Effects of the Brian Head Wildfire	This study aims to assess the implementation and results of a course-based undergraduate research experience (CURE) for students in an ecology course at an intermountain-west, primarily undergraduate institution. This CURE focuses on place-based learning in regards to a large (70K+ acre) wildfire that affected a local area. Due to the direct effect that place-based research experiences have on students, CUREs have shown to benefit students' long-term knowledge retention, and can lead to a greater motivation in these students to make significant impacts in their communities and future fields of research. Participants in this study consisted of the students in two sections of an ecology course. We used questionnaires with both open and closed-ended questions to assess how the course impacted the students' knowledge and opinions of both wildfires; questionnaires were administered at the beginning and end of the semester. Preliminary results show an increase in factual knowledge of wildfires and a greater appreciation for the biological sciences as a whole.	Sheridan,Lloyd		Carrie,Bucklin	Oral Synchronous Remote
Geographically Weighted Analysis of Spatially Varied Criminal Justice Enforcement Trends in Minneapolis, Minnesota	Regression analysis is performed on police stop data and police use of force data in Minneapolis, Minnesota, searching for the influence of racial or environmental bias in police searches and police use of force. Differences in regression methods are explored and show that a Geographically Weighted Regression (GWR), which takes spatial variance and influence of neighboring areas, is a very powerful tool for analyzing multivariate relationships in complex urban ecologies.	Randall,Huyck		David,Maxwell	Oral Synchronous Remote
SUU Campus interactive Google Map Conversion and Upgrade to ArcGIS Online Map Series	For several years the SUU Campus maps have been utilizing the Google mapping environment to share information about available resources on campus. Access to this system have been cumbersome and has been difficult to make timely updates. Decision was made to convert the entire mapping layers over to the ESRI ArcGIS Online mapping environment. SUU faculty and students have been working on creating this new mapping environment by integrating in several class projects. Projects included a new Campus Tree Tour, Drought Tolerant Plant Tour, and Campus Points of Interest Tour. Additional layers for Parking Permit Lot Designation and Restrictions, Campus Accessibility & Inclusion, which include Electronic Portal Doors, Handicap Parking, ADA Safe Routes, Elevator locations and Non-Gender Restrooms. Safety layers on campus currently include AED, Blue Lights, and Evacuation Chairs. Currently the project is in the evaluation stage and receiving critical feedback on the new mapping interface and the interactive tours. The next phase will be to assign layers to appropriate data stewards for updating each layer(s). We have found this to be a successful project and has the ability for the integration additional projects and layers for this new mapping environment. Special thanks to the several students and their projects, as well as Campus Facility Management, SUU Web development, Campus Security, and Risk Management faculty and staff for supporting this project.	Aboubakar,Kone		David,Maxwell	Oral Synchronous Remote

Integrating Undergraduate Curriculum: Lessons Learned	A panel discussion between four faculty who are currently teaching an SUU Integrate Course between the humanities and life sciences. The panel will discuss the progress of their course, lessons learned, and future plans.	Carrie,Bucklin	Laura June Davis, Lindsey Roper, Kris Phillips	NA,NA	Oral Synchronous Remote
NABT & Me: How Professional Development Experiences Shape Faculty Teaching	After attending an online professional development conference, four faculty share how NABT has shaped their teaching and impact on students. The faculty will also share how students can attend and make use of similar conferences.	Fred,Govedich	Carrie Bucklin, Jennifer Mraz-Craig, Bill Heyborne	NA,NA	Oral Synchronous Remote
Homemade Raman Spectrometer	Raman Spectroscopy is one useful method for determining the chemical makeup of samples. Raman Spectroscopy relies on Raman scatter, an event where visible light is used to excite a sample to a virtual excited state. This state is very short-lived, and the sample will quickly return to the ground electronic state but with vibrational modes activated. The relaxation emits a photon whose energy is lower than the excitation photon by the amount of vibrational energy now held by the sample. Thus, a spectrum of the Raman scatter photons is characteristic of the vibrational structure of the sample. These characteristic vibration modes can give insight into the chemical structure of the sample and may even be unique enough to provide the chemical identity when compared against a database of known spectra. We are designing and building an inexpensive spectrometer to be used in both teaching and research here at Southern Utah University. In addition to the designing the optics of the spectrometer, this project involves designing detection and amplification circuits, a hardware controller, and both control and user-interface software with detection and sample analysis in mind. Once it is completed, the performance of the apparatus will be characterized using a sample with experimentally known vibrational modes. We ultimately hope to use the instrument in collaboration with others to study the surface enhancement of Raman signals by nanomaterials.	Hamza,Samha		Matthew,Rowley	Oral Synchronous Remote
X-Ray Crystallography	X-Ray Crystallography is used to identify the chemical structure of proteins and other molecules. The process begins with crystallizing a protein, which requires experimentally determining conditions that will allow the protein to crystallize. Once crystallized, the protein can then be bombarded with high-powered X-rays in an X-ray diffractometer. If the crystal diffracts, it will create a diffraction pattern that can then be used to generate an electron-density map of the protein. Computer programs can then be used to determine the protein structure by fitting the electron-density map to the sequence of the protein in question. Understanding the structure of a protein is vital because it allows us to gain insights into how it functions and how we can control, modify, and affect it. In our research, we are going to work to isolate a previously unknown protein and use X-ray crystallography to identify the structure to better understand the function of the protein.	Brianna,Connors		Caleb,Hiller	Poster Face-to-Face
Extraction of proteins in nematodes using protein binding	Alternative splicing is the method through which cells diversify gene expression by producing multiple proteins from the same gene sequence. The key component of alternative splicing is the spliceosome; a complex composed of numerous proteins which function together to rearrange mRNA sequences. The spliceosome removes intron segments and combines exon segments to create a translatable strand of mRNA for the ribosome. It is crucial to identify the various proteins which make up a spliceosome to determine their respective roles in the alternative splicing mechanism. The goal of this research project is to capture one of the protein components which forms the spliceosome of <i>Caenorhabditis elegans</i> . Specifically, we aim to isolate the protein mog-5, which closely resembles Prp 22, a protein found in yeast which mediates the release of mRNA after splicing. We also seek to identify protein-protein interactions by using mog-5 to capture other spliceosomal protein components. Several <i>C. elegans</i> proteins have highly conserved sequences which closely resemble more complex organisms, such as humans. Thus, <i>C. elegans</i> serve as an ideal model organism to provide further insight into function and mechanism of the spliceosome in humans. With this information, further studies can be conducted which explore new methods to combat cancers that are linked to the spliceosome	Heather,Hinton		Jonathan,Karpel	Poster Face-to-Face
New Ptychopariid Trilobites from the Middle Cambrian Wheeler Formation	The Wheeler Shale Formation has drawn in academic and amateur fossil collectors for decades thanks to its abundance of well preserved late Middle Cambrian fossils. It is particularly well known for its rich trilobite fauna, as articulated specimens are common. Despite decades of research, additional trilobites continue to be discovered and described. Recent field work has resulted in the discovery of a previously undescribed species of the ptychopariid trilobite <i>Elrathia</i> from the upper Wheeler Shale in the House Range of Millard County, Utah. Additionally, specimens of the ptychopariid <i>Brachyaspidium</i> microps from the Drum Mountains in Millard County, Utah show previously unreported features. These features may provide new information about the morphology of the species, be indicative of ontogenetic change, or may be distinctive enough to erect a new species.	Jonathan,Ginouves		Grant,Shimer	Poster Face-to-Face
Preparation of a tyrannosaur maxilla from the Grand Staircase Escalante National Monument	As part of a 2020 Paleontology internship between the Intergovernmental Internship Cooperative at SUU and the Grand Staircase Escalante National Monument Bureau of Land Management, I was involved in extensive field work. Towards the end of the field season, field prospecting resulted in the discovery of a tyrannosaur maxilla in the upper Cretaceous Kaiparowits Formation. Maxillary bones are bones of the face containing teeth and fenestrae. This maxilla was recovered from the field and I began preparation in the early fall of 2020. Preparation of the maxilla took place at Southern Utah University and the Bureau of Land Management offices in Cedar City, Utah. Preparation was conducted under a microscope using paleontools pneumatic air scribes. A total of 138 hours was spent on the preparation.	Jonathan,Ginouves		Grant,Shimer	Poster Face-to-Face
Covid Vaccinations and mRNA Transcription	The coronavirus has had a substantial impact on today's society. Fairly recently, scientists and medical professionals have begun administering vaccinations against the COVID-19 virus. This vaccine is one of three, pronounced by pharmaceutical companies, that are being administered to the public. Most other vaccines are a weakened or inactive version of the virus that is injected to stimulate an immune response to create the antibodies. The type of COVID-19 vaccine administered is a mRNA vaccine in which our body's cells break down the strand of mRNA and dispose of them. This triggers a response in the body, so that the immune system can begin making antibodies and alerting T and B-lymphocytes of an "infection" and will begin fighting off the virus. This project aims to gather information about the process in which our bodies are able to use the virus' mRNA to fight off future infection as well as the difference between the coronavirus vaccine and other virus vaccines. Detailed images show some of the process and small captions accompany them with simple explanations of how this process is supposed to be effective.	Sierra ,Marines		Jeremy ,Evans	Poster Face-to-Face
Preparation of Monoalkyldiphenylphosphonate by use of Grignard Reagents and Lewis Acids from Triphenyl Phosphate.	The reaction of Grignard reagents with triphenyl phosphate is being studied. Various Grignard reagents are being introduced into a reaction medium containing triphenyl phosphate to evaluate and control the stoichiometry of the addition reaction. Based on our previous data, we hypothesize that only 1 molar equivalent of Grignard reagent will add to triphenyl phosphate and therefore only monoalkyldiphenylphosphonate will be produced. We are evaluating the use of Lewis Acids to promote the addition reaction. Our focus is on two objectives: 1. Studying the reactivity of Grignard reagents of different structure with triphenyl phosphate, and 2. Study the ability of various Lewis Acids to electrophilically activate the phosphate and allow for selective substitution of the phenoxy groups with Grignard reagents.	Sydney,Rowley		Nathan,Werner	Poster Face-to-Face
Effects of urban cats on bird populations in Cedar City	Feral domestic cats are known to be predators of birds. We evaluated bird populations in two areas in Cedar City. The first area was located in an industrial part of town with known domestic cat populations and the second site was located in a residential area near Canyon Park with fewer known domestic cats. We found that bird diversity was similar in both places, however, the industrial bird population consisted mostly of introduced and urban species whereas the Canyon Park bird populations included more native species. There was no significant difference in bird populations between the two sites. Cat populations may contribute to the fewer number of native species in industrial areas.	Lauren,Slack		,Wells	Poster Face-to-Face
Mercury For Dinner? Aqueous Heavy Metal Sequestration	Heavy metals threaten the aquatic life and are a danger to human health. Multiple sites are reporting an increase in heavy metal concentration. Through a three-step process – pumping, filtration, and removal – it is possible to responsibly remove the toxic metals. A pumping device will provide a microfluidic, filtration device with a continuous flow of solution. The filtration device will then separate out a high concentration, metal ion solution using an electric field. The solution will then move on to the removal phase. Using a charged gold mesh, the metal ions will reduce and form a solid which can be removed and disposed of in an environmentally responsible manner.	Jacob Kjeldahl,Jensen		Chris,Monson	Poster Face-to-Face

Synthesis and Characterization of Locked Dipyrroles for Insight into Energy Transfer in Biological Systems	Our work in collaboration with Dr. Dean of the physical science department is to inform the structure-motion function relationship between highly-efficient, native light-harvesting proteins of cyanobacteria and cryptophyte algae. Tetrameric pyrrole photosystems are used by these organisms leading us to our previous work regarding the synthesis of dipyrrole molecules. In contrast to the compact and complex nature of binding pockets within biological cells, in vitro, these dipyrroles are subject to rapid deactivation of their excited state due to torsional motion about the pyrrole rings. To address this issue, we have pursued binding of the torsional motion through methyl, ethyl, and propyl alkyl bridges to synthetically tether the pyrroles rings through two physical connections and attempt to mimic the conformations of the molecules in vivo. This will allow our collaborators to use specialized cold spectroscopy instrumentation to monitor the photo-initiated vibrations that mediate efficient, rapid, and long-range energy transfer.	Shardon,Morrill		Mackay,Steffensen	Poster Face-to-Face
Synthesis and Proteolytic Stability Studies of Dehydroamino-Acid-Containing Tetrapeptides	Peptides provide an important role in medicine though they are limited by their poor bioavailability and stability. To produce viable therapeutic peptides new strategies must be designed to increase their proteolytic stability. This work aims to improve peptide stability via the incorporation of small, medium-sized, and bulky $\alpha$ , $\beta$ -dehydroamino acids ( $\Delta$ AAs) into a standard tetrapeptide. The resulting peptides' structures and proteolytic stabilities were then assessed. Replacement at the i+1 position with a $\Delta$ AA produced peptides that maintained the 310-helical shape of the original tetrapeptide while replacement of a $\Delta$ AA at position i+2 yielded peptides adopting a $\beta$ -sheet-like conformation. The impact of incorporating a $\Delta$ AA on the peptide structure was independent of the $\Delta$ AA size, with small ( $\Delta$ Ala), medium ( $Z$ - $\Delta$ Abu), and large ( $\Delta$ Val) $\Delta$ AAs providing similar structural effects. The proteolytic stabilities of each peptide produced was determined via timed incubation with Pronase. $Z$ - $\Delta$ Abu and $\Delta$ Val increased proteolytic resistance when incorporated at the i+2 position of the tetrapeptide and had little impact when placed at the i+1 position, whereas peptides containing the smaller $\Delta$ Ala degraded rapidly regardless of position. The results of this work indicate that both bulky and medium-sized $\Delta$ AAs (the latter of which are more accessible) are potential tools for increasing the rigidity and proteolytic stability of bioactive peptides. The long-term goal of this work is to improve the effectiveness of therapeutic peptides and introduce new applications by increasing their proteolytic stability via simple synthetic techniques.	Shardon,Morrill		Steven,Castle	Poster Face-to-Face
Effects of Tree Canopies in Reducing Air Pollution in Iron County, Utah	Industrial society is known to produce many microscopic air pollutants from a variety of sources. For many centuries, humans have noticed that forested areas seem less contaminated by these pollutants than other areas. Complex biological processes that take place in trees aid them in improving the quality of air around them. In Iron County, the main sources of pollution include automobiles, industrial sources, and household sources. This pollution will only increase as the population continues to grow across the county. Particulate matter are small (<10 microns), inhalable particles that are capable of entering into the bloodstream of humans. This property makes them a potential health hazard, especially in areas with high amounts of air pollution. These air pollutants are typically measured with sophisticated technologies. However, we developed an inexpensive method of evaluating aerial pollutants using microscope slides equipped with simple adhesives left out on elevated stands for a period of time. Findings suggest that canopies may reduce the amount of pollutants in their immediate vicinity and that this method can be used to measure air pollutants.	Luke,Alder	Jill Alder	Samuel,Wells	Poster Face-to-Face
Diversity of Native Pollinators in Southern Utah	Through funding by the Utah State University Public Lands Initiative we are creating a database of native bees and other pollinators in Southern Utah. The project involves monitoring native bees so as to better assess declining bee populations. As an initial step, we caught bees and other pollinators in the Dixie National Forest and surrounding areas during the spring, summer, and early fall of 2020. We did this by opportunistically catching pollinators using nets and kill jars and by using variously colored pan traps. The bees were pinned, mounted and maintained in the Bee Lab at Southern Utah University. Bees were sorted into their taxonomic categories. The majority of specimens belong to the families Apidae and Megachilidae. Common genera within these families are Bombus, Eucera, Xylocopa, Anthidium, Osmia, and Megachile.	Connor,Smith	Connor Smith, Bonnie Losee, Heather Vielsich, Sandon Stokes, Ashley Hardin	Samuel ,Wells	Poster Face-to-Face
Inverse frit semipermeable PDMS membranes	Separations of liquid mixtures are important in a number of scientific fields. Separation techniques use a variety of criteria to determine how molecules are separated, but several common methods use molecular size. Semipermeable membranes have holes of specific sizes to allow molecules of that size or smaller to pass through the membrane, and are commonly made of cellulose. We have created porous membranes out of polydimethylsiloxane (PDMS), an elastomer. We create these porous membranes using a PDMS and magnesium mixture. When the PDMS is polymerized, the magnesium is locked in place, and then we dissolve out the magnesium to create our membranes. We are testing the filtration of these membranes using water and proteins of varying size. As expected, so far we have found that using larger magnesium pieces results in better water flow and poorer filtration because larger holes in the membrane are created. However, the filtration does not behave as might be expected with relatively large magnesium pieces creating membranes that have some protein filtering abilities. We will report our results working with different sizes of magnesium, which we hope may eventually lead to membranes that are as capable as those used in a dialysis machine.	Mikey,Savage	Baker Wilkes	Christopher, Monson	Poster Face-to-Face
Microwave-assisted synthesis of (E)-stilbene by palladium-catalyzed Suzuki-Miyaura cross-coupling reaction	The synthesis of (E)-stilbene through a palladium-catalyzed cross-coupling reaction under microwave irradiation is being studied. (E)-stilbene can be synthesized in moderate to good yields from (E)-2-phenylethenylboronic acid pinacol ester and aryl bromides. Heating by microwave irradiation can improve the yield of chemical reactions. This research focuses on the effect microwave irradiation has on the yield of the desired product. Under conventional thermal heating, the best yield of (E)-stilbene was observed when the polar, aprotic solvent dimethylformamide, which is water soluble and can be toxic and hazardous, was used as the reaction solvent. The optimal reaction conditions (solvent, temperature, and time) that provide the highest yield under microwave heating are currently under investigation. The importance of this project is the possibility of using microwave irradiation to allow for higher yields in the synthesis of (E)-stilbene, less expensive reagents, and less hazardous and more environmentally friendly solvent.	Tanner,James		Nathan,Werner	Poster Face-to-Face
Cell-Free Expression of C. elegans Helicase Homologue	Helicase is an enzyme critical to RNA regulation, specifically in ribosome biogenesis. Enzyme homologues for pre-mRNA processing and ribosome biogenesis have been identified in several eukaryotes, including Caenorhabditis elegans, which are a proven model organism for research. The function of the c. elegans helicase homologue, ddx-15, has not been identified and previous attempts to synthesize the protein have been unsuccessful. In this study, we used various cell-free expression systems to optimize expression of the ddx-15 protein. Preliminary results will be presented.	Josh,Willits		Rebekah,Karpel	Poster Face-to-Face
Geologic controls on post-fire channel response, Markagunt Plateau, Utah	The Brian Head fire burned approximately 30,000 hectares of the Markagunt Plateau in southern Utah in the summer of 2017. Within a month of fire containment, intense thunderstorms initiated large scale flooding, channel erosion, and channel aggradation in the major basins that burned during the fire. Here, we explore the geologic controls on differences in channel response between basins draining differing proportions of distinct lithologies in a tectonically active area. In the study watersheds, volcanic rocks composed primarily of Oligocene to Miocene ash-flow tuffs are more exposed in the headwater areas that were heavily burned. Quartzite conglomerate, sandstone, and lacustrine sediments deposited prior to the ignimbrite flare-up are exposed in areas less affected by the fire. We use point counts and XRF analysis of these lithologic differences to untangle sediment connectivity to sources in the burned versus unburned areas. We then relate sediment source areas to spatial patterns of erosion and deposition using post-fire lidar, repeat cross sections, and field observations. In all of the study basins, widespread channel change was induced by coarse sediment pulses, although some reaches remained relatively stable. This is observed in the Center Creek basin, as the incision of a headwater tributary basin within the burned area likely led to a debris flood that propagated down the channel, inducing sequences of aggradation and degradation in the downstream channel. In the adjacent Boverly Creek basin, however, sediment from the burned area was likely disconnected to downstream reaches due to localized deposition. Instead, flood induced channel widening and erosion caused similar sequences of aggradation and degradation downstream from the burned area. Post-fire channel response in these basins differed in the degree of sediment connectivity to fire proximal sources, but resulted in large scale channel change both within and outside of the burned area.	Lauren,Nickell		Erich,Mueller	Poster Face-to-Face
Drawing Confidence and its effect on student performance	Drawing has long been used in science and education as a method to convey one's thoughts or views regarding their surroundings. Others use it as a tool for expression aimed at providing an outlet for creativity. Recently, many medical schools have taken to using drawing as a method to teach their medical curriculum with some asking students to take up to 12 hours of art credits in medical school(Joewono, et al., 2018). This study aims to detail our efforts in implementing drawing exercises in human anatomy courses and their effectiveness in student performance outcomes, specifically, how confident are students in their perceived drawing ability, how useful is drawing in studying, and what effects do students perceived ability to have on their success in the classroom. To explore this, the researchers administered a survey to students aimed at gauging student confidence and perceived drawing skills before and after lessons using drawing based instruction. However, no instrument currently exists to accurately assess a student's perceived drawing ability or how useful a student views drawing as a study tool. Therefore, the researchers must first create an instrument aimed at collecting this data in a valid and reliable way. Our poster details our progress in creating the confidence in science drawing instrument (CSDI). Currently, the researchers are working toward establishing the validity (via face and content validity) and reliability (via test-retest) of the CSDI and will continue through the spring 2021 semester(Wynd & Schaefer, 2002).	Kohlton ,Darrington		Dr. Lance, Forshoe	Poster Face-to-Face

Exploring the Behavior of Bilin Subunit N-Methyl-Dipyrinone Upon Photon Excitation	Chemical compounds have many pathways by which they can process, release and transfer the energy obtained by photon absorption, whether it is via a relaxation mechanism or a photochemical process. The photobilins, or photosynthetic pigments in cyanobacteria and some algae, are especially efficient at moving and preserving this light-generated energy to use for biological processes. To research how these tetrapyrrole photo pigments behave upon photon excitation, this investigation will focus on a bilin subunit, N-Methyl-Dipyrinone in the solvents methanol and dichloromethane, individually. This compound will specifically be tested without the presence of protein binding/interactions, which can affect the energy transferring capabilities of the molecule. To perform this experimentation, UV-Vis absorption spectroscopy and fluorescence spectroscopy will be used to observe the excitation of the molecule and obtain relevant data such as: the molar extinction coefficient, the fluorescence quantum yield, and rates of relaxation from the excited state. These quantities will aid in the observation of rapid molecular behavior such as torsional relaxation and isomerization. The goal of this research is to find a chemical connection between biological function and better understand the exceptional energy transferring capabilities of light-harvesting bilins.	Taime,Clark		Jacob,Dean	Poster Face-to-Face
Pursuit of Methods for Antibiotic Synthesis: The Synthesis and Formal [2+2] Cycloaddition Reactions of 1-Phenylprop-2-en-1-one	Since the discovery of penicillin in 1928, monocyclic $\beta$ -lactams have been of particular interest because of their antibiotic properties. Due to increasing antibiotic resistance in bacteria, the search for new antibiotics will continue. Our goal is to develop a novel method of synthesizing monocyclic $\beta$ -lactam (monobactams) antibiotics using more straightforward and efficient synthetic techniques. We plan to achieve this by using visible-light photoredox catalysis, which utilizes visible light to promote a formal [2+2] cycloaddition of an $\alpha,\beta$ -unsaturated ketone and an isocyanate to form the monocyclic $\beta$ -lactam. When we began this project, phenyl isocyanate was the original isocyanate that was evaluated; with this starting material, the reaction yielded no products. After altering the reagents to use hexylisocyanate, we found that a [2+2] cycloaddition had occurred, but only between two molecules of phenyl vinyl ketone (1-phenylprop-2-ene-1-one). We hypothesize that phenyl vinyl ketone will cyclize with an isocyanate to form the intended monobactam if it is prevented from dimerizing. To accomplish this, we are evaluating other catalysts and additives to observe their effect on the reaction. Once productive conditions for the above described reaction are established, the reaction will be optimized, and the antibacterial properties of the monobactams synthesized will be investigated. Through this synthetic method, not only will monobactam antibiotic preparation have more easily accessible starting materials, but the synthesis of various derivatives will also be more easily accomplished; this will be beneficial in the efforts to create new $\beta$ -lactams to combat the ever-present issue of antibiotic resistance.	Madison,Fisher		N/A,N/A	Poster Face-to-Face
Substrate specificity of a periplasmic aldehyde oxidoreductase used for detoxifying aldehydes during growth of Escherichia coli	Periplasmic aldehyde oxidoreductase (PaoABC) is an Escherichia coli enzyme that is used to detoxify small organic compounds. The crystal structure of PaoABC shows an active site that is much less closed in than active sites of similar enzymes from different organisms. We hypothesize that PaoABC's more open active site affects substrate binding affinity, and that by mutating amino acids around the PaoABC active site to make it more like other enzymes in the family, we can change its substrate binding and increase its ability to catalyze oxidation of a wider range of compounds. In this project, we are making mutants of PaoABC by and will perform kinetic analysis. We will make mutants of the version of PaoABC that is expressed with the highest activity, and will perform kinetic analysis of the mutant proteins, comparing them to the wild-type protein.	Lacey,Fritzler		Elizabeth,Pierce	Poster Face-to-Face
An Exploration of a Novel Synthesis for Merocyanines	Merocyanines are a class of dyes having clearly defined structural properties. Some of these compounds change color depending on the solvent they are dissolved in, a phenomenon known as solvatochromism. Molecules that display this property can be used to identify the polarity of solutions. Other possible uses include in sensors and in the field of molecular electronics to construct molecular switches. Brooker's merocyanine, or MOED, is one of the more common solvatochromic compounds.  We describe a new route to the synthesis of Merocyanines that reduces the standard method two-day process of reaction and isolation to at most an hour. The reaction was optimized using MOED as the target molecule. The procedure is then used in the synthesis of a known MOED derivative as well as a novel compound. The previously unknown compound was characterized, and its properties are discussed.	Jacob,Newey	Mitchell Kyler White	Mackay,Steffensen	Poster Face-to-Face
Predicting the presence of Juniperus osteosperma and Pinus edulis using niche modeling techniques at the Three Peaks Recreational Area	We are conducting a study in the Three Peaks Recreational Area using niche modeling techniques to predict the presence of Juniperus osteosperma and Pinus edulis in the area. 246 plots with radii of 11.3 meters are being sampled. Plots are being tested for soil composition and surveyed for evidence of other plants. Sampled plots will be analyzed with R and MaxEnt. An analysis of the plots will find the most important factors, both biotic and abiotic, in determining the presence or absence of Juniperus osteosperma and Pinus edulis. More research may be done by using these variables to predict the possible migration of Juniperus osteosperma and Pinus edulis into new ecosystems as local climates change.	Justin,Mickelson		Rachel,Bolus	Poster Face-to-Face
Analysis of The Chinle Formation in Cedar City, Utah	The Chinle Formation is a Triassic aged rock formation found in the western United States, most well known for fossil content such as the petrified wood found in Petrified Forest National Park. The three goals of our research are: firstly to stratigraphically map the Chinle Formation found near Cedar City, Utah; secondly to determine causes of some unusual weathering patterns found locally in the Chinle Formation; and finally to determine some geochemical analysis of the rocks within the unit. We have not yet drawn any conclusions as the research is still ongoing.	Jace,Jackman	Joseph Jackson	Grant ,Shimer	Poster Face-to-Face
Bacterial Growth in Silver Nano-particle Solution	Silver nanoparticles are of interest because of their chemical, antimicrobial, and other properties. We have developed a method to fabricate silver nanoparticles using a microfluidic device made of PDMS. Through this method, we can consistently form high concentrations of nanoparticles of the same size and shape using common reagents for silver nanoparticle fabrication (silver nitrate, sodium hydroxide, ascorbic acid, and a specific capping ligand, which coats the outside of the nanoparticle, determining its final size and shape). Citric acid is commonly used as a capping ligand, but we have tested several non-conventional ligands, including common biological molecules. Specifically, we have compared a lipid (1,2-dioleoyl-sn-glycerol-3-phospho-L-serine), a vitamin (vitamin B), and several proteins (BSA, Casein, and IgG) and have observed differences in the nanoparticles produced when using these capping ligands. We expect that with the specific anti-microbial/anti-bacterial properties of silver nano-particles there should be absolutely no growth of microorganisms. However, our silver nano-particle solutions, overtime have grown a large amount of microorganisms which leads us to question how and why are the microorganisms growing. The silver nano-particle solution we are focusing on has BSA as the main capping ligand, due to the large amount of growth occurring within the solution. In order to determine the microorganisms we are using cell lysing processes such as heating, agitation, and cell lysing kits in order to break the cells and expose the DNA in order to perform PCR and multiply the amount of DNA in the tested solution. After successful lysing of the cells we perform agarose gel electrophoresis in order to determine the size of the DNA fragments. Once the electrophoresis is performed successfully we will send the organisms sample off to a lab in order to sequence the DNA and therefore determine the exact species of microorganisms in the silver nano-particle solution to determine how they are growing.	Payton ,Riggs		Elizabeth,Pierce	Poster Face-to-Face
The Mosses of Cedar City	This project represents some of the major species of moss found in the area surrounding Cedar City, Utah. We collected specimen at varying locations, covering a wide range of elevations and biomes. Here we identify the species we found, with drawn diagrams to help with future identification.	Shayli ,Morris		Matt,Ogburn	Poster Synchronous Remote
Plasma Spectroscopy as Applied to Astrophysical Observations	The interpretation of spectral lines for plasma characterization is a well-established diagnostic technique for determining number density and electron temperature, essential parameters for predicting radiation dynamics, local thermodynamic equilibrium, and atomic kinetics in laboratory and astrophysical environments. Specifically, spectra are the only way to compare predicted plasma quantities produced by hydrodynamic simulations, such as electron temperature, density, and fluid motion to what can be observed in astrophysical objects such as Supernova Remnants (SNRs) and Black Hole Accretion disks. To this end, we are using the atomic kinetics code FLYCHK to create synthetic spectra, which we will convolve to consider temperature and density gradients. We will then compare the spectra we created to spectra collected using the Chandra and XMM-Newton x-ray satellites to determine the accuracy of the hydrodynamic codes. This research is currently ongoing.	Rebecca,Nelson		Theodore,Lane	Poster Synchronous Remote
<b>College of Health Sciences</b>					
<b>Presentation Title</b>	<b>Presentation Abstract</b>	<b>Primary Full Name</b>	<b>Secondary Presenters</b>	<b>Mentor's Full Name</b>	<b>Presentation Type</b>
Reducing Intimate Partner Violence	This presentation will be a discussion of the AIM from Healthy People 2030 for reducing intimate partner violence through Primary drivers and strategies that can be used in communities for prevention and rehabilitation of intimate partner violence.	Abby ,Holmgren	Kimberly Rohmann Alyssa Yardley	Mark ,Siemen	Oral Face-to-Face
Nursing professor	Transition from pre-reqs to nursing classes	Mandy ,Robinson	Hunter Foster, Keaton Hansen, Annie Wolter, Lara Prinsloo,	Donna,De Silva	Oral Face-to-Face
Covid Vaccine Schedule and Safety	I will present on research conducted by me and others on the schedule of the covid vaccine administration and its safety for differing age populations. I will speak about facts and myths of the vaccine and inform viewers of the truth about the Covid vaccine.	Shawntae,Gagnon		Kevin,Tipton	Oral Face-to-Face

"The Truth Under the Mask!"	Through the span of the COVID-19 Pandemic, masks have been a hot topic. How to wear them properly, should the average consumer be stocking up on masks, what is the right type of mask to purchase for this virus...these are all types of valid questions that have been asked. An overview of standard precautions, different types of masks, the importance of mask hygiene, and their general purpose will be discussed. This dissemination will explore the types of masks used by the average collegiate scholar and their personal habits of wearing them. A survey will be conducted to obtain the behavioral habits of the local campus population at Southern Utah University and then these results will be compared with the COVID-19 spike of confirmed cases in the region to assess any correlation between the two.	Breanne,Santiago Dubon	Josalyn Stacey, Kelsey Ross, Natalie Cannon, Cassidy Horton,	Donna ,DeSilva	Oral Face-to-Face
Moderna vs Pfizer: A Closer Look at the Covid-19 Vaccine	In this presentation, we will provide information about the Covid-19 vaccine in general and compare the two different vaccines that are available.	Jessica,Poulsen	Abby Speakman, Michael Wayman, Amanda Manley Puefua, Kelly Wilcock,	N/A,N/A	Oral Face-to-Face
EBP in the nursing field	This presentation will present how evidence based practice can be applied in clinical settings such as hospitals, clinics, offices, etc. This presentation will also cover how evidence based practice can help people who aren't medical providers research different topics in medicine and give them confidence they are getting correct, reliable, and updated information.	Makall ,Whetten	Jaden Ahquin	Kevin ,Tipton	Oral Face-to-Face
Determining the Consideration of the Menstrual Cycle in the Creation of Rehabilitation Protocols for Female Patients in Athletic Training	Throughout the menstrual cycle, research has shown that there are varying levels of estrogen and progesterone which can cause an altered response to training that may hinder the rehabilitation process. Upon examination of the literature, it was found that 41.7% of physically active women give credence to their menstrual cycle having a negative effect on their performance and exercise training. Knowing this value, clinicians should be educated on the effects the menstrual cycle has on training and use those resources to adapt their rehabilitation protocols for female athletes accordingly. The aim of this study is to determine the prevalence of consideration of the menstrual cycle in the creation of rehabilitation protocols for female patients by athletic trainers who meet state regulations and have practiced clinically within the last 3 years.	Rhiannon,Vandegrift		Christine,Samson	Oral Face-to-Face
Reducing Suicide Attempts in Adolescents	Our goal for our project is to reduce suicide attempts in adolescents by focusing on the primary drivers of, mental health resources availability and social media. By focusing on some primary drivers, we have focused in on some strategies for change. The strategies include, increasing screening assessment tools and educating community members on recognizing at risk adolescents and normalizing and increasing availability to school counselors. Some other strategies are educating adolescents what is and what isn't appropriate for social media and increasing available school programs to increase adolescent face to face time.	Madison ,Seamons	Shavonne Harris Lauren Craft	Mark,Siemon	Oral Face-to-Face
Wellness Products Affecting High School Golf Athlete Performance	Understanding wellness products and how they influence health could benefit athletes who are trying to improve their performance through noninvasive measures. There are many different wellness companies who have developed different merchandise to improve overall health. This experiment can present a basic approach to learn some potential benefits of a product that could improve athletes' performance. The purpose of this research project was to test wellness products on high school athletes between the ages of 14-18. This experiment assessed how these products affected their performance as they played golf. A series of tasks were performed to examine distance and accuracy. The wellness product tested was the Kenko PowerBand® Wrist Bracelet. The company who developed this bracelet, Nikken Inc., claims to use magnetic, farinfrared, and negative ion technology to improve overall health for anyone. According to their claims, we hypothesized that this wellness bracelet could have a potential benefit of improving these athlete's accuracy and distance at the driving range and out on the course.	Ajhamae,Quring		N/A,N/A	Oral Face-to-Face
Use of escape rooms in nursing education - effective or just fun?	In nursing education, instructors are challenged to find engaging and interactive methods to improve memory and cement learning. Developing an escape room may be a novel way to bring to learning to life. NURS 4355 students learned about opioid administration by progressing through an escape room. Students were tasked with deciphering clues to be able to open the locked box and administer an opioid antagonist before their simulated client died of an opioid overdose. Each student team is timed so that competition can be fostered with student teams trying to beat the winning time. After students experienced the escape room, student feedback was gathered by use of surveying and open-ended questions. Student feedback has indicated that escape room simulation is an effective way to practice skills related to safe opioid administration. In addition, students reported that it was a fun and interactive way to collaborate on tasks while improving team building and communication skills. Evaluation of the escape room experience learning in the clinical setting may include improved patient safety indicators and fewer opioid medication errors. In the academic settings, exam scores can be evaluated to assess student learning. Researchers have found that students believe escape rooms are useful and enjoyable learning tools for attaining clinical skills and knowledge. Drawbacks include significant preparation time to develop the escape room, as well as the cost of supplies. Escape room activities allow for interactive, immersive learning that can be applied to a variety of clinical scenarios. Use of escape rooms in nursing are an emerging idea, becoming an effective learning strategy to enhance student learning, team building, and critical thinking.	Suzie,Campbell		N/A,N/A	Oral Face-to-Face
Increased abstinence from alcohol among pregnant women	Our poster will provide information and statistics regarding the negative effects of alcohol during pregnancy. How alcohol affects the fetus and the mother during pregnancy and the long term consequences.	Rylee,Marshall	Alison Simmerman, Marc Bowman,	N/A,N/A	Oral Face-to-Face
Is abstinence-only sex education an effective approach with adolescents?	I want to provide a presentation that thoroughly answers this question. I want to involve statistics and real life stories about how the different techniques of teaching sex education affects adolescents.	Olivia,Johnson		Clint,Broadbent	Oral Face-to-Face
Reducing suicide attempts in adolescents	We will discuss different causes that lead to suicide attempts by adolescents and strategies to combat them.	Madison,Seamons	Shavonne Harris Lauren Craft	Mark,Siemon	Oral Synchronous Remote
Are vaccines safe for infants?	Research Project	Fenumia'i,Ofoia	Bailey Gray, Caden Sorenson, Manny Berz	Clint,Broadbent	Oral Synchronous Remote
Reducing the Suicide Rate	Our presentation revolves around reducing the suicide rate with identifying the primary and secondary drivers of suicide. Furthermore, we examine the nursing processes role to address these drivers. We hope to address these drivers through interventions that we can utilize during our nursing practice.	Katie,Fuentes	Maranda Branch , Megan Eberhard, David Parker,	Mark,Siemon	Oral Synchronous Remote
Sleep Apnea: The Best Sleep You Never Had	Sleep Apnea is the most common sleep disorder and one that goes untreated more often than not. There are many things that contribute to someone's likelihood of getting sleep apnea. Genetic factors, weight, and diabetes to name a few. We feel it is important to educate college students about because many of these symptoms start in adulthood but do not get looked into until mid-late adulthood. Symptom education and management of sleep apnea is the focus of our project. Educating students about the importance of a good night's rest and how to identify a common sleep disorder will help with overall campus wellbeing and health.	Aysia,Kelsch	Katelyn Meppen Kyle McKellip	Kevin,Tipton	Oral Synchronous Remote
The Effects of Social Media on Health	Social media has a huge role in people's lives today. There are several ways that social media can effect people. It can influence someone for the good or the bad. Through this project I want to discover what it is that an influencer can post to have such an impact on their followers. The use of this information can be beneficial to know how to share the right information in nutrition and health to the population.	Rebecca,Bramlage		Nica,Clark	Oral Synchronous Remote
Internship with Dairy West	I never thought my nutrition and agriculture backgrounds would ever collide. My dad called me one afternoon after attending a dairy convention in Saint George telling me that he had just met Registered Dietitian Heidi Martin, Vice President of Health and Wellness with Dairy West. He mentioned to Heidi that I was a student at Southern Utah University studying nutrition and she gave my dad her card. I reached out to Heidi and was offered an internship with Dairy West which I completed during the summer 2020 semester. Dairy West represents dairy farm families in Idaho and Utah and promotes the dairy industry and dairy products locally, nationally and globally. Throughout the semester I worked closely with all of the members of the health and wellness team. I completed projects including, but not limited to, guiding farm tours, developing high school Agriculture in the Classroom curriculum, writing a grant application, researching food deserts, learning about school nutrition, and participating in a sustainability series. By completing this internship, I learned so much about dairy, nutrition, and myself.	Abigail,Mickelson		Nica,Clark	Oral Synchronous Remote
Driver Diagram	Presentation will be given on education to reduce proportion of people who misuse prescription opioid drugs.	Kodee,Fullmer	Danielle Jackson, Bailey Coombs, Kirsten Stratton	N/A,N/A	Oral Synchronous Remote
Strategies to Reduce Obesity in Children and Adolescents	Obesity is very common among Americans. Over the past decade the instances of obesity in children has skyrocketed. There are many drivers that contribute to the rise of childhood obesity and that is what we would like to discuss.	Kylie,Willingham	Natalie Humiston Kristen Anderson Desiree Fitzgerald	Mark ,Siemon	Oral Synchronous Remote



Decreasing the Rate of Motor Vehicle Crashes Related To Drowsy Drivers	This presentation is about illustrating that drowsy driving related motor vehicle crashes is a preventable problem that can reduce mortality rates of individuals behind the wheel at all hours of the day. This is a problem that can be solved. There is research that shows multiple different avenues, strategies and way that drowsy drivers can be safe and off the road when they are impaired enough to drive. There is so much in this world that we cannot do to prevent death among individuals, however this is something that can help reduce mortality rates among individuals who are working long hours and traveling long distances to get where they need to go, but they can do so safely. Reducing crashes related to drowsy driving is an goal that can be reached with education and awareness to the public.	Melissa,Anderton	Sierra Fife , Kristina Wolf , Cason Patterson	Mark,Siemon	Oral Synchronous Remote
Reducing Intimate Partner Violence	A poster project for Outlining the guidelines provided by Healthy People 2030 for reducing intimate partner domestic abuse and violence.	Abby ,Holmgren	Alyssa Yardley , Kimberley Rohman	Mark,Siemens	Oral Synchronous Remote
<b>College of Engineering &amp; Computational Sciences</b>					
<b>Presentation Title</b>	<b>Presentation Abstract</b>	<b>Primary Full Name</b>	<b>Secondary Presenters</b>	<b>Mentor's Full Name</b>	<b>Presentation Type</b>
Computer Aided Instruction System in EET	Abstract—The decline in enrollment of Science, Technology, Engineering, and Mathematics (STEM) graduates in highly technological societies is a concern for political leaders, educational and business leaders [1]. At the heart of the problem lies the slow level of adoption of computer and information technology (ICT) by educational and training institutions to help alleviate the problem [2]. This paper(project) presents the integration of teaching and learning technologies to deploy a Computer Aided Instruction system for undergraduate students in an applied electronics engineering program.	Oscar,Rodriguez	Isabella Borisova, Ujjwal Dahal	N/A,N/A	Oral Face-to-Face
Heat Transfer Analysis of Eicosane During Melting	This project is a continuation of an ongoing study concerning energy storing phase change material (PCM) at Southern Utah University. Previous research was conducted to study the inward freezing of the PCM Eicosane (paraffin, C20H42) in a cylindrical enclosure. The scope of this project includes evaluating the performance of Eicosane for releasing thermal energy (melting). The melt-testing and performance of the paraffin PCMs was performed. Data from thermocouples was collected, and heat transfer analysis consisted of (I) conducting a melting incremental convection heat transfer analysis utilizing data from thermocouples; (II) implementing a calorimetric heat transfer analysis; and (III) evaluating the melt front vs. time from data was performed.	Sabrina,Kim		Ali,Siahpush	Oral Face-to-Face
Effect of COVID-19 on Risk Management of Construction Projects - A Case Study on High-Rise Building in China	China's construction industry is China's pillar industry. Since 2004, the year-on-year contribution rate of the construction industry to GDP has averaged around 6.3%. Unlike the United States, China is still a developing country. Public facilities and infrastructure are still a key part of the country. State-owned enterprises occupy a dominant position and play an important role in the industry. Based on the statistics of 118 listed construction companies in 2018, the total revenue of construction state-owned enterprises and local state-owned enterprises accounted for 94% of the entire sector, and the proportion of net profit reached 91%. The impact of COVID-19 in China from December 2019 to March 2020 has had a significant impact on the construction industry. There is no doubt that the COVID-19 isolation system has caused many risk categories and the construction risk management has become more complicated and inappropriate.  This research focuses mainly on environmental project, which encountered risk management difficulties due to COVID-19. The main objective of this research is to develop a model that include a risk dashboard with different risk indicators. The research methodology focuses on how to determine the possible risks of construction projects and use good management methods to control them. Risk management should focus on risk control and adopting active measures to control risks by reducing the probability of risk occurrence and/or risk impact. Under the circumstance that the established goals remain unchanged, change the implementation path of the plan to fundamentally eliminate specific risk factors.  The research offered a risk management model and possible suggestions and procedures to avoid risks, as possible.	Christian,Gray	Hongyu Hu, Mycrae Tebbs, Mohamed Askar,	Mohamed,Askar	Oral Face-to-Face
Construction Safety Plans Initial Reactions and Responses to the COVID-19 Pandemic - A Case Study on Commercial Project	The construction industry has faced many alterations through the years. In response to the COVID-19 pandemic, the most recent change can be compared to the revises in personal protection equipment (PPE) as research on health and safety has progressed over time. Most construction companies throughout the US were affected by closures or slowdown. Initial coding identified familiar terms in the Covid response, like face coverings, hand sanitizer, social distancing, and health screening of all employees prior to entering the construction site, such as temperature checks, put forward some requirements to guard against Coronavirus at work, using remote monitoring to supervise the construction site, submit, and review and revise problems on-site by means of Internet communication.  This study's main objective is to develop a construction project safety plan to match the current situation. The Associated General Contractors of America (AGC) reported in March 2020 that Coronavirus was starting to affect construction through delays, logistics issues in obtaining material and Personal Protection Equipment (PPE) and worker concerns. A short survey, "COVID-19 and Construction Safety," was developed in Google Forms for Construction Companies. A link to the survey was posted on social media and emailed out to contractors. The Centers for Disease Control and Prevention (CDC) has issued construction workers guidelines that include handwashing stations, social distancing, and face coverings.  Most of the survey responses included that it is required to focus on the PPE at the office and on construction sites. Based on the survey question responses, an updated construction safety plan has been developed. The safety plan has been tested on a commercial project.  The study concluded several ideas to improve the health and safety of the construction workers and equipment.	Olive,Musimbi	Hang Chu, Jincan Huang, Mohamed Askar,	Mohamed,Askar	Oral Face-to-Face
Construction Key Performance Indicators Initial Reactions to the COVID-19 Pandemic – A Case Study on Design-Build Project	Tracking and carefully interpreting an array of key performance indicators (KPIs) helps a construction company build long-term resilience and performance while also meeting short-term financial and performance goals when affected by the novel coronavirus. Based on the novel coronavirus, COVID-19, most construction companies throughout the US were affected by closures or slowdown.  This study's primary purpose is to determine the impact of covid 19 on the construction key performance indicators, such as delays caused by public service interruption or by temporary termination of work on-site. Especially when dealing with some risky projects, how to avoid accidents to monitor the profit margin to ensure the project's smooth progress. Seven important KPIs were determined and a dashboard was designed to follow up the performance indicators during the project construction phase. A gap analysis was processed to compare the actual performance or results with what was expected or desired. A comparative study between the performance indicators before and after COVID-19 was accomplished.  The study included an observation of major KPI statistics that were affected by COVID-19 and needed to be added to these KPIs under the danger of COVID-19 to improve them. The study is implemented on a design-build project.  The context of the COVID-19 pandemic is the nowadays themes in the construction industry. Initial coding identified familiar terms in the Covid response, like reduced resource sizes, fewer projects and cost reduction. The study concluded several ideas to improve the use of Key Performance Indicators in the construction industry during crisis times.	Bryant,Ward	Xinzi Cui, Qingyang Chen, Mohamed Askar,	Mohamed,Askar	Oral Face-to-Face

Supporting Students in Math 1030 with a New Corequisite Course	<p>Corequisite courses are a growing trend in post-secondary education and have been shown to help more students successfully complete their general education math requirement in less time. Traditionally, many students must take a prerequisite math class before they are able to take their required general education math class. Alternatively, a corequisite class is designed to be taken at the same time as the general education class and provides "just-in-time" support, allowing students to complete their general education requirement sooner.</p> <p>In Fall 2019, the SUU Department of Mathematics piloted a new Math 930 course as a corequisite for Math 1030. Students who had not satisfied the traditional prerequisites for Math 1030 were allowed to take Math 1030 if they also enrolled in this pilot Math 930 class. Two sections of Math 930 were taught by Katelynd Adams. Jennifer Ganowsky and Matt Adams taught four sections of Math 1030, which included a mixture of "support" students (those also taking Math 930) and "traditional" students (those who had satisfied the prerequisites to take Math 1030 alone). All three instructors were involved in the initial design of Math 930 and collaborated to ensure that the two courses coordinated in content, assessment, and schedule.</p> <p>In this presentation, we will describe the design of Math 930 and the teaching techniques and activities used in the class. We will compare the support students' performance in Math 1030 to the performance of the traditional students to show that the corequisite class was effective in supporting the students who had not fulfilled the traditional prerequisites for Math 1030. We will also share successes and challenges we encountered in this pilot program, as well as make recommendations for future Math 930/1030 combination offerings.</p>	Matt,Adams	Jennifer Ganowsky, Katelynd Adams,	N/A,N/A	Oral Face-to-Face
Fitting a Four Year Computer Science BS Degree into Three Years: A Case Study	The typical advertised time to complete a bachelor's degree in the USA is four years. Although many students take much longer than this, some students want to complete their degrees in as short a time as possible. These students could be motivated by getting into the job market sooner, reducing the costs associated with getting their degrees, pressure from parents or family, or pressure from themselves to excel. Beyond student expectations, there are other reasons a University may want to create a path for students to get their degree sooner than usual, such as political pressure. This study describes the challenges of creating a pathway for students to complete a four-year Computer Science degree in 3 years faced by a comprehensive regional university.	Dr. Nathan Barker,Laurie Harris	N/A	N/A,N/A	Oral Face-to-Face
LUMPED CAPACITANCE METHOD ANALYTICAL AND EXPERIMENTAL EVALUATION	In this paper, a simple experiment was conducted to evaluate the limitation and validity of assumptions associated with the lumped capacitance method. This method evaluates temperature variations due to transient convection heat transfer. The experiment was conducted using a small aluminum cylinder, first placed into hot water, and then in cold water. The results of the experiment were compared with three different analytical approaches. One is an Incomplete Response Method, another is a Predict and Check Method, and the last is Aluminum Cylinder Convection Coefficient Method. The validity and limitations of the lumped method are then discussed.	Kyler,Reinhold	Kyler Reinhold, Owen Telford , Collin Cutler	N/A,N/A	Oral Face-to-Face
The Yeti Boot Project	This project will involve helping a dog, Yeti, to be able to walk more comfortably on his amputated limbs. When he was a puppy his mother chewed off portions from both of his back legs and his tail. Since he was left with nubs, he is continually left in pain. One leg is consistently dragged along, while the other is barely used, resulting in back issues and weak legs. If we design the boots properly, hopefully we will help Yeti to be able to put less pressure on his front paws and hips, so that he can live a better life. The takeaways for this project will be several functional boots, CAD drawings, and an analysis of the pressure on his legs before and after the boots are used.	Najjiah,Jones	Cierra Salcido ; Morgan Hansen	Laurel,Dodgion	Oral Face-to-Face
Numerical analysis of a model for the growth of microorganisms	A system that arises in a model for the growth of microorganisms in a chemostat is studied. A new semi-implicit numerical scheme is proposed. It is proven that the scheme is uniquely solvable and unconditionally stable. The convergence rate of the numerical solution to the true solution of the system is also given.	Craig,Montgomery	Braden Carlson,	Jinalong Han, Seth Armstrong, Sarah Duffin,	Oral Face-to-Face
The Multi-disciplinary Nature of Unmanned Aircraft Systems	Unmanned aircraft are not just tools for aviation and they are not simply platforms to carry cameras. As a matter of fact, unmanned aircraft are tools for a wide variety of applications. This presentation illustrates the multi-disciplinary nature of unmanned aircraft systems, more commonly known as drones, and provides several examples of their popular and potential uses. Case studies will be presented to demonstrate the wide spectrum of unmanned aircraft uses. Senior-level unmanned aircraft operator students will present the work that they have done using unmanned aircraft and share their experiences in completing the work.	Sean,Heiner	Reynaldo Biolley, Clint Long,	N/A,N/A	Oral Face-to-Face
Practical Cybersecurity	Note: TNot a day goes by without a report of some sort of cybersecurity incident. How do you keep personal information and devices safe? Cybersecurity is often scary but doesn't need to be. This presentation will explain best practices anyone can follow, and give practical instructions for better passwords, more secure mobile devices, and stronger home networks. Using real-world scenarios and details of actual hacks, strategies will be presented to identify common weaknesses, and fix them maximize security for a minimal amount of effort. With a focus on minimizing jargon, any participant will come away with knowledge of tools and techniques to help themselves in both professional and personal security.	Glen,Sagers		N/A,N/A	Oral Face-to-Face
Using Student Response Systems in Intermediate Algebra	To help engage students in learning mathematics, I used a subscription based student response system in teaching Intermediate Algebra. This presentation will highlight successes and failures of its implementation and student reaction to system.	Ben,Schoonmaker		N/A,N/A	Oral Face-to-Face
Dynamics of a Predator-Prey Model with Stage-Structure in the Predator	We develop and investigate a discrete-time predator-prey model in which the predator is classified according to two developmental stages: juveniles and adults. We also assume that only the adult predators are capable of attacking and consuming the prey population with prey consumption regulating predator reproduction. In addition, it is also assumed that the maturation period is such that all juvenile predators become adults after one time unit. Meanwhile, prey population growth, in the absence of an adult predator, is assumed to follow the Beverton-Holt nonlinearity. We thoroughly investigate the various dynamical behaviors of this discrete-time predator-prey model such as the existence and uniqueness of the extinction, predator-free, and interior equilibria as well as the local and global stability of the equilibria and the persistence of the system. We provide numerical examples showing the various dynamical scenarios in support of the theoretical results. These numerical simulations also show the existence of rich dynamics that are not observed when the predator is unstructured.	Md,Hossain		N/A,N/A	Oral Face-to-Face
Effectiveness of Plane Wall Radiation Shielding	Radiation shielding is the reflection of thermal radiation by using materials whose surface has a high reflectivity and low emissivity. This experiment attempts to replicate thermal radiation shielding by placing two identical steel plates parallel to each other and heating one of the steel plates with heating pads. After recording the temperature of each steel plate, a reflective aluminum plate was placed between the steel plates to shield thermal radiation created by the heating pads. The heating pads were heated up and the temperature of the steel plates were measured. Heat transfer analysis was performed to calculate the theoretical temperature of the steel plates and the required heat transfer rate to maintain the final experimental temperatures. The experimental temperature difference of the steel plates was 1.15% different with no shielding and 13.78% with shielding. The experimental heat transfer rate used was 41.53% with no shielding 78.56% with shielding. The experimental heat transfer rate was significantly greater than the theoretical, meaning the experiment required more heat to maintain the final temperatures of the steel plates. Future improvements consist of spacing around the border of each plate to maintain equal distance between each plate, increased heat generation by heating pads to allow more radiation heat transfer, adding insulation to both steel plates, and performing the experiment under vacuum to reduce convection.	Collin,Cutler	Cierra Salcido; Owen Telford; T01005049 ; Rebekah Yamashita;	Ali,Siahpush	Oral Synchronous Remote
Calibration and Testing of a Budget Extensometer	The modulus of elasticity is one of many properties used when predicting the behavior of materials. An accurate measurement of the modulus of elasticity is found using precise measurements of elongation and stress. Commercial testing machines use extensometers and load cells to measure these values; however, these machines are very expensive for educational lab use. Southern Utah University's Dr. Jacob Bishop created cost-effective universal testing machines and purchased a budget extensometer. The purpose of this project is to calibrate the extensometer to give accurate results of elongation. Multiple tensile tests were performed on steel tie wire using the universal testing machine and the calibrated extensometer. The average modulus of elasticity found was 25,220 ksi with a percent error of 13.09%. Performing the test very slow with a strain rate below 0.05 1/hr results in poor data. The recommended strain rate to perform tensile test is from 1 to 2 1/hr. A motor can be incorporated with the testing machine to allow consistent movement of the cross head during multiple tests.	Collin,Cutler	Cameron Pepi; Owen Telford; Ali Astle; Trayson Maxwell	Ali,Siahpush	Oral Synchronous Remote
Direct Evaporative Cooling - A Simple Analysis	Evaporative coolers are an excellent alternative to air conditioning systems for dry climates. Contrary to A/C removing moisture from the air, evaporative coolers lower temperatures by the latent heat of evaporation and increasing air moisture. Warm air energy is used in evaporative cooling to evaporate water, resulting in cooler temperatures. There are 3 types of evaporative coolers: direct, indirect, and hybrid systems. This paper focuses on direct evaporative cooling (DEC). The efficiency, cooling capacity, consumption of water, and volume capacity of DEC's can be calculated by measuring inlet and outlet temperatures and relative humidities. To support the theory and measure these attributes, a simple in-house DEC cooler was built and tested. Ultimately, even though not as efficient as commercial coolers, it was found that our evaporative cooler decreased the temperature and increased the relative humidity of the ambient air.	Matt,Bennion	Skyler Ipsen, T00985756, theskyman47@gmail.com	Ali,Siahpush	Oral Synchronous Remote

Semi - Translucent Concrete	The need for energy efficiency and strength in building materials is growing across the United States and the world. Concrete is a commonly used high strength building material but significantly lacks in aesthetic characteristics and translucent properties it is gray, dark and dull. Semi-translucent concrete is an alternative being studied extensively by universities and companies across the globe. This experiment studies the feasibility of using glass to substitute for gravel as an aggregate in concrete. This study includes testing the structural, optical, and thermal properties of concrete with varying amounts and types of glass when used as aggregate in concrete. The resultant data indicated that the maximum stress of regular concrete was 16.26 MPa, while the glass aggregates ranged from 11.48 to 18.77 MPa. The optical tests indicated that clear glass aggregate allowed the broadest range of wavelengths to pass through the concrete at 418.31 to 739.04 nm. The coffee cup calorimeter thermal tests indicated minimal differences between the glass aggregate and the control mix of concrete at 2.2 J/g °C (avg.) and 3.00 J/g °C, respectively. Data suggests using different size of glass as an aggregate to be an effective replacement for gravel and sand in buildings using concrete as aesthetic and structural elements.	Tanya,Jones	Mako Bennett , Matthew Bayreder	Ali ,Siahpush	Oral Synchronous Remote
Developing a Quantitative Quality Control System to Overcome the Impact of COVID-19 on the Construction Projects in the USA – A Case Study on Commercial Project	This research's primary goal is to develop a quantitative quality control system to overcome the negative impact of COVID-19 on the quality of the construction projects in the USA. Secondary objectives are to focus on the regular monitoring of the construction site's conditions of the commercial project and effectively solve the quality problems. The methodology of this research is to outline the best practices for using application software and quality checklists to discover, raise, and solve problems of the construction process due to the effect of COVID-19. A quality dashboard and statistical analyses were developed to measure the quality of the construction items and the general quality index. The software will be used for monitoring each problem and scheduling solutions. More complete checklists and management methods have been considered, ensuring that the project meets a certain quality level with practical strategies, solutions and safe communication methods.  The research concluded several ideas to identify, resolve and report project quality issues in a timely manner to protect workers' safety and ensure project quality, such as improving the quality checklists for COVID-19, internet monitoring and spot checking quality of the project.	Yuheng,Yuan	Xingqi Yu, Mohamed Askar, Jared Baker,	Mohamed,Askar	Oral Synchronous Remote
Delay Challenges in the USA Construction Projects due to COVID-19 – A Case Study on Commercial Project	The United States construction industry is one of the largest construction markets worldwide, with annual expenditures of over \$1,293 billion in 2020. However, the Coronavirus (COVID-19) pandemic has harmed the construction industry, prompting project delays, cancellations, and increasing the project's overall cost. With construction projects facing delays, disruptions and uncertainty of completion due to the COVID-19 pandemic, many construction companies are looking to their force majeure coverage and delay clauses to determine what is considered eligible for claim submission. The Coronavirus has delayed close to 5,500 U.S. projects as of June 2020. There have been various publications issued on the topic of mitigating risk and legal issues associated with the construction industry response to COVID-19.  The main objective of this study is to focus on a regularly updated project schedule is crucial because project teams rely on accurate schedules to plan and do their work. This study focuses on outlining the best practices for construction project planning, scheduling and delay analysis updating of various activities in one commercial project, which is done using MS Project software. The resources of each activity are determined and allocation is done using the software. An updated schedule, which helps to finish the project well in time with optimum resources and delay reasons and analysis, has been considered in this study on the commercial project.  The study concluded several ideas to improve the construction project progress and minimize the projects' overall cost, such as contractor adjustment of crew sizes, shifts or equipment to speed or slow the progress.	Nicholas,Harvey	Yufan Xiong, Zimei Zhang, Mohamed Askar,	Mohamed,Askar	Oral Synchronous Remote
The Impact of COVID-19 on Construction Project Financial Management - A Case Study on Heavy Civil Construction Project	On 11 March 2020, the World Health Organisation ("WHO") declared COVID-19 to be a pandemic, with the WHO "deeply concerned by the alarming levels of spread and severity" of the outbreak. In response, the financial markets have plummeted to levels not seen since the 1987 stock market crash. This affected the construction industry's financial status and brought many uncertain factors to the project's financial management, such as problems related to the project cash flow. These problems are bound to cause significant distress to the project's finance. The importance of financial management has increased substantially compared to the previous periods.  This study's main objective is to develop a project financial management model to help improve the financial situation of construction projects. The secondary objective is to analyze the impact of COVID-19 on project financial management by focusing on a series of specific data to improve the financial status, such as the project's cash flow. This study used pie charts and data comparison methods to examine the impact of COVID-19 on the financial management of a heavy civil construction project and through the final data analysis, to show the effect of the COVID-19 pandemic and suitable response methods. The financial model was tested on a heavy civil construction project to summarize several measures to deal with the impact of the COVID-19 pandemic.  The study concluded several possibilities of reducing the impact of COVID-19 on the project financial management and reduced the project costs by optimizing productivity. The study recommended some effective measures to control financial expenditures and project costs.	Yikang,Li	Xin Wan, Mohamed Askar, Jared Baker,	Mohamed,Askar	Oral Synchronous Remote
Is social media to blame for the increase in depression in teens?	I will be discussing how social media has affected the mental health of teens.	Jayden,Clements		Clint,Broadbent	Oral Synchronous Remote
: COVID-19 Brings a Silver Lining to Southern Utah Girls in Technology (SUGIT)	The goal of this presentation is to share the motivation, outcomes, and lessons learned from projects and by SUU students who participated in the projects. It also highlights the outcomes and impact in both collaborations and involving SUU students in the projects. Due to COVID-19, SUGIT 2020 was designed for a virtual platform using Google Classroom. It was a method to provide opportunities for all high school girls. SUGIT 2020, was accessible to high schools for a few weeks (instead of a one-day conference in 2018) that included 17 workshops (STEM, cybersecurity, computing, programming, Math, and IT Certificate) and 20 motivational videos. Series of workshops were released on Google Classroom. For details of the workshops (see www.outreachmad.com). Interviewees included industry members, past outreach participants, parents, SUU community members, sponsors, and industry members. The motivational interviews provided a great opportunity to inspire, and share stories about success, challenges and need for diversity to the high school girls registered for SUGIT. The motivational videos and workshop's theme were linked with the need and importance of women in technology field. Over 85 people registered (approx. 60 high school girls). Registration included people from Utah, Idaho, Montana, Texas, California, Florida, India, and Canada. In the last 13 years, Dr. Kesar's outreach has covered 20 rural counties of southern Utah, East Nevada and beyond. Along with the background and history of the project, in this presentation the thought process of creating workshops and conducting interviews to focus on increasing awareness about opportunities in education and career in technology, including cybersecurity will be discussed.	Shalini ,Kesar	Rylan Wallace, Parker Hannifin,	N/A,N/A	Oral Synchronous Remote
Complete Streets of Cedar City	Complete Streets of Cedar City is focused towards developing right of ways near Southern Utah University to provide increased mobility for students, staff, and community members, while being economically prosperous, socially equitable, and environmentally sustainable. The project will assess selected areas in Cedar City and determine how streets can be improved for safety of bicyclists, pedestrians and other human powered vehicles.	Paul,Rhodes III	Alyssa Melling, Logan Platt, Camden Lawrence,	Scott,Munro	Poster Face-to-Face
Furious Pressure Testers	This project is intended to test the pressure capacities of high-pressure filters intended to be used in several different industries. These filters are manufactured to be extremely durable and operate at high efficiencies, but there is no data on what pressures they can withstand. The goal of this project is to create a machine capable of applying extremely high pressures and recording the internal pressure of the filters up to the failure point. This data will then be relayed to the customer, FURIOUS! Filters	Bill,Maxwell	Zach Jensen, Teigen Jewkes,	Scott,Munro	Poster Face-to-Face

Design, Build, Fly	<p>Through the years search and rescue teams have been established on the ground with large groups of people that occasionally use hounds. Eventually search and rescue teams evolved to planes and helicopters. These types of search and rescue groups are used for ground, cave, and mountain rescue missions depending on the severity of the case. However, these types of rescue teams and procedures can sometimes be ineffective and expensive depending on the type of rescue team used. Ground teams usually take longer to cover vast amounts of area where the terrain may be unexplorable. The use of planes and helicopters can cover a great amount of land in a short amount of time, but the cost of using certain vehicles and their respective fuels can be expensive. The use of unmanned aerial vehicles can lower the costs of these missions, increase efficiency in respect to time, and possibly cover large amounts of ground that both ground and plane teams cannot.</p> <p>While UAVs have become very popular in search and rescue missions, our team hopes to be able to expand the spectrum of what these UAVs can offer. Many search and rescue teams have implemented UAVs with capabilities to search for those who are lost, but these current UAVs lack the ability to reach them and deliver the supplies they may need to survive. Through the use of a UAV, our team hopes to be able to eliminate these problems by providing an air vehicle that has a camera, stabilization features for takeoff and landing, along with the ability of gently dropping the needed supplies that can keep these rescueses alive.</p>	Kyson, Spendlove	Omar Campos, Aaron Dockins,	N/A, N/A	Poster Face-to-Face
Modular Mechatronics	<p>Mechatronics is the branch of engineering that integrates the electrical and mechanical disciplines. A mechatronics kit is a set of parts used for the creation of robotic systems. Commercial modular mechatronics kits are useful, but expensive tools for learning about prototyping mechatronic systems. These kits are frequently needed to be permanently altered to produce a project. The purpose of this project is to design, manufacture, and test a prototype of a self-contained modular mechatronics kit, for the purpose of small scale production, that enables the user to rapidly assemble and disassemble projects using only the tools provided. This kit will use as few tools as possible and does not require the alteration of any of the pieces provided to create an assortment of projects. The kit will contain: a programmable microcontroller, an assortment of structural pieces, various sensors and actuators, mounting hardware for sensors, actuators, and hardware, and real time visualization software that displays the output values of the connected sensors. The kit will be used to build three demonstrations: a segmented robotic arm, a line-following four wheeled robot, and a two wheeled balancing robot.</p>	Skyler ,lpsen	Alden Domingo, Anthony Cole,	N/A, N/A	Poster Face-to-Face
Wind Tunnel Advancement Group	<p>Southern Utah University's Engineering and Technology Department has a wind tunnel in the basement of the engineering building. The wind tunnel has not been utilized for students for many years. While it is operable, much of the instrumentation is outdated. Additionally, there is a desire to incorporate the wind tunnel into lab courses, but this requires experiment and data acquisition development. The cost of repairs to the wind tunnel by the manufacturer is expensive and time-consuming. A previous Senior Design team designed and built a new balance system for the wind tunnel, but there are still many inoperable or missing items that need to be replaced for functional and reliable wind tunnel systems.</p> <p>The objective of this project is to create and test an independent data acquisition system for the SUU Wind Tunnel, ensuring it is safely and effectively operable for current and future use, and perform a series of experiments to verify the advancements made on the wind tunnel.</p>	Collin, Cutler	Collin Cutler, Sabrina Kim, Shenhao	Scott, Munro	Poster Face-to-Face
Brain Controlled Unmanned Systems	<p>Different brain activities generate different electromagnetic patterns. These patterns can be converted into signals using an apparatus designed to measure the electromagnetic radiation emitted from the human brain. The data is then processed and turned into commands. These commands can then be used by other systems such as unmanned drones, prosthetic limbs, other devices.</p> <p>The user of the apparatus is trained to send consistent signals for several commands such as left, right, and forward. Once signals are consistently identified, each one is mapped to a specific function. These functions can then be used to control the motion of an unmanned vehicle. The scope of the project is to use thought commands to control the motion of a small radio-controlled drone.</p> <p>A system has been devised which operates the joysticks of a remote controller of a small drone using servo motors. The servos are controlled by MATLAB software through an Arduino. The electromagnetic data from the brain of the user is imported into the same software, and the signals are processed using the BCIlab toolbox. After commands are fully identified, MATLAB will be able to move the joysticks on the remote via the servos when the user has a specific thought.</p>	Anthony, Cole	Anthony Cole, Spencer Bain	Sangho, Bok	Poster Face-to-Face
SUU ARAD - UAV	<p>The mission of SUU ARAD (Aerial Reconnaissance and Delivery) was to design, build, and fly a UAV to launch from a location with little to no infrastructure. A target area based on a known general position was located during flight and a payload was delivered to this area.</p>	Rebekah, Yamashita	Kyler Reinhold, Spencer Bain, .	Scott, Munro	Poster Face-to-Face
Rocketbirds senior design team	<p>The SUU rocket club is making an aluminum rocket that will go super sonic. The teams that will be presenting will be the airframe team and the propulsion team. We will presenting on our progress from last semester and this semester so far.</p>	Owen, Telford	Matt Bennion Noah Mollner Cameron Pepi	Scott, Munro	Poster Face-to-Face
Importance of Cybersecurity Policies	<p>This poster highlights the significant aspects of cybersecurity in the context of compliance and policies. Cybersecurity policies protect sensitive and confidential data, especially when risks and vulnerabilities are high within the organization. Recent reports indicate an increasing number of cyber breaches. Phishing, Spear-Phishing, Ransomware, Malware are examples of cyber breaches. RiskBased Security (2020) reported that data breaches led to an astounding 36 billion records exposed in the first half of 2020. Furthermore, the increasing number of remote workers has led organizations to rethink and restructure their cybersecurity best practices. Proofpoint (2020), an enterprise security company, reported that 88% of organizations worldwide experienced Spear-Phishing attempts in 2019.</p> <p>Although policies protect against attacks originating outside an organization, policies also protect an organization from its employees. Within an organization, employees are constantly moving, copying, sharing, and exporting information. McAfee, a computer security software company, reported people within an organization were responsible for 43% of data loss. When cybersecurity policies such as Bring Your Device (BYOD), password, encryption, and software installation are established and routinely followed, the chances of a data breach decreases dramatically.</p> <p>This capstone project is a collaborative work where we plan to develop several cybersecurity policies and analyze the existing policies for a local business. Through this poster, our goal is to present the importance of cybersecurity policies and the factors that contribute to a good compliance policy, to the general Southern Utah University community.</p> <p>References:  <a href="https://www.varonis.com/blog/cybersecurity-statistics/">https://www.varonis.com/blog/cybersecurity-statistics/</a>  <a href="https://www.mcafee.com/enterprise/en-us/security-awareness/cybersecurity/cybersecurity-policies.html">https://www.mcafee.com/enterprise/en-us/security-awareness/cybersecurity/cybersecurity-policies.html</a></p>	Parker, Hannifin	Rylan Wallace Daniel Harris	Shalini, Kesar	Poster Face-to-Face
SUU Minecraft Campus	<p>This poster is a reflection of a collaborative Computer Science &amp; Information Systems (CSIS) capstone group project. The project is a proof of concept designed for Southern Utah University (SUU) Marketing team to suggest various ways Minecraft server, a popular game platform, could be used to interact with prospective students. The group will conduct research for developing and implementing a user management system to manage Minecraft user accounts, explore various design methods, methods on how to allocate them to the different prospective students when they request access to the SUU Minecraft platform. As part of the group project, we will be designing and creating advertisements for students to become aware of our platform. Extensive research including feasibility study and literature review will be conducted. Our goal is to showcase with the findings and lessons learned from the project.</p>	Thomas, Grant	Jaeger Christensen, Zoe Schmidt,	Dr. Shalini, Kesar	Poster Face-to-Face
Concrete Canoe	<p>In 1988, the first American Society of Civil Engineers (ASCE) Concrete Competition was held in East Lansing, MI. For the Fall 2020 and Spring 2021 semesters, our team will design and construct a concrete canoe that will race in an ASCE competition. The main objective for the Fall 2020 semester was to create a concrete mix that has a density slightly less than that of water as well as the necessary strength to support four individuals paddling the canoe (approximately 700lbs). To achieve the desired density and strength for the canoe, six different mixtures were tested to find which combination of cement, aggregates, and admixtures would exhibit the correct density. Of these six mixtures, two were chosen to move forward with a compressive and tensile test to assess their strength. While creating and testing the concrete mixtures, three canoe designs were created in 2D and 3D using AutoCAD and SolidWorks, respectively. Canoe design A was selected because of its buildability as well as its speed and stability in the water. Since concrete is stronger in compression than tension, the primary concern with the canoe design and materials is that it is able to withstand the tensile forces it will encounter. To replicate these compression and tension forces, the universal materials testing machine and test mark concrete cylinder testing machine will be used to test cylinders and bricks that have been formed from the two mix designs. This will help find the ultimate stresses that the concrete can withstand in tension and compression.</p>	Tanya , Jones	Jacob Pastorik, Victor Ledua, Kolby Lloyd, Hunter Hulet, Quade Darrington	Matthew, Roberts	Poster Face-to-Face

College of Humanities & Social Sciences					
Presentation Title	Presentation Abstract	Primary Full Name	Secondary Presenters	Mentor's Full Name	Presentation Type
The Rain in Jane	For my Honors Capstone, I studied the significance of rain (or weather) in all of Jane Austen's novels. Wanting to find a creative way to display my research, I decided to embroider scenes from the novels. Each embroidery shows what I believe to be the most significant instances of rain (and one of snow) in Austen's novels.	Allyson,Turner		N/A,N/A	Oral Face-to-Face
Nurturing Nature: Our Experience with Interdisciplinary Gen Ed Teaching	Prof. Laura Walker (English) and Dr. Sam Wells (biology) were the first faculty to teach an interdisciplinary general education (IGE) course. The class, Exploring the Humanities through Nature, ran in fall 2019 and again in fall 2020. In this presentation, we'd like to share our experience teaching the class, what we've learned along the way, and how to use an interdisciplinary approach to make your passion become your students' passion. We'd also like to share our newfound love for and commitment to interdisciplinary teaching and learning. Our overall goal when we started discussing this class was to bring nature into focus in our students' lives in a variety of ways and through a multidisciplinary approach. Dr. Wells also wanted to help introduce those students lacking confidence in STEM fields to the science of natural history, and Professor Walker wanted to introduce the less literary students to great poetry, fiction, and essays about nature. We feel confident that, by our second go-round, we managed to do this quite successfully. Several of our ideas worked very well, and others need some adjustment, but it seems quite clear (both from student responses and our own experience) that IGE courses like this fill a niche and should be continued.	Laura ,Walker	Samuel Wells,	N/A,N/A	Oral Face-to-Face
"Unclean, Unclean:" Vampires in Dracula and 'Salem's Lot as Distortions of Traditional Gender Expectations	The origin of the vampire in popular media hearkens back to the roots of Gothic literature, though the being itself resided in folklore long before its emergence in the novel form. Why has the vampire myth been so compelling to the human consciousness for so long, and in so many different forms? This irresistibility stems from the ways in which the vampire represents a subversion of gender that simultaneously excites and terrifies the audience. I will begin my analysis of gender and the vampire with Bram Stoker's Dracula -- perhaps the most well-known vampire novel of all time, and certainly what many consider to be the origin of the vampire in popular fiction. Set in Victorian England, it takes the reader to a time and place where gender roles defined everyday life and any change to or rebellion against them was strictly taboo. I will then jump centuries and cross an ocean to read Stephen King's 'Salem's Lot, which looks at vampires in the context of 1970s rural America and takes the vampire genre further into that of horror. Anecdotally, King wanted to write an American adaptation of Stoker's work but couldn't see the vampire myth working in modern, urban America; his wife's suggestion that the vampire could thrive in a small town in New England where everyone knew each other and gender performance was still rigidly policed was the inspiration for the work. The two texts will allow me to compare and contrast the ways the vampire myth has evolved to fit the time and place in which it is told -- namely the societal expectations of gender that exist in that space. The men and women in the texts react differently to the vampire's presence -- both solidifying and transgressing gender boundaries of their time. Even this analysis necessarily conforms to the gender binary, since none of the characters truly transcend the gender binary in the end, and there are no non-binary characters represented. The vampire as a subversion of traditional Western expectations of gender explains the fear the vampire arouses in all characters and serves to examine the role of the women in the two texts.	Allyson,Turner		Kyle,Bishop	Oral Face-to-Face
SUU Faculty's Pedagogical Experiences in Adapting to Technology as a Result of COVID- 19	With online and synchronous remote teaching being the norm for many SUU teachers in 2020, it is vital to investigate faculty's adjustments to technology-driven pedagogy. As such, we aimed to pay particular attention to teaching modalities and their effects on, affective valence (faculty's emotional connections to students), communication with students, and instructor experience (years of teaching and experience with technology in teaching). We administered a 13-question survey (adapted from Bolliger & Wasilik (2009). Faculty satisfaction with online teaching and learning in higher education; and Cohen, Kamarck, & Mermelstein's (1983) measure of perceived stress regarding teaching) to Southern Utah University faculty (N=65) using the faculty portal. The findings indicate that SUU faculty were satisfied with their on-line and virtual communication with students, but they were less satisfied with their pedagogy effectiveness in the non-face to face modality and reported low satisfaction with their affective relationships with students. The personal connection with students, thus, was negatively impacted in synchronous remote and on-line modalities. Faculty who were newer to SUU reported greater competency, less stress, and contentedness with their pedagogy effectiveness than those who had served the university longer, suggesting that newer faculty (0-3 years) at SUU were able to adapt to the technology challenges of the shift to synchronous remote and on-line teaching. Qualitative data gathered from open-ended questions was largely negative concerning pedagogy effectiveness, communication with students, and affective connection to students. Specific quotes depicting faculty's challenges will be further discussed in this presentation.	Stetson,Voorhees		Julie,Pynn	Oral Face-to-Face
Institutional Racism in Othello	Growing up in a small, rural town in Utah meant that my exposure to diverse populations was extremely limited. Literature allowed me some of my first insights into issues of racism. The importance of accessing literature that confronts racism continues to grow increasingly important as the United States grapples with addressing systemic racism throughout the country. Renni Eddo-Lodge's book Why I'm No Longer Talking to White People About Race offers a contemporary and sometimes personal look into issues of race, while simultaneously discussing the historical roots of slavery in Great Britain. Eddo-Lodge defines racism as being prejudice plus power. Institutional racism is that exertion of power through systems created and upheld by a society or culture. Utilizing these definitions provided by Eddo-Lodge allow for further examination of racism in Shakespeare's Othello, the Moor of Venice. Othello faces discrimination throughout the duration of the entire play. Being an outsider in Venetian society puts him at a lower standing of power socially. Despite the fact that he is a well respected general in the army, his otherness and race put him in a position to experience prejudice from Venetian citizens. This imbalance of power between Othello and his Venetian counterparts exposes the both blatant and subtle acts of racism directed towards Othello. Using contemporary lenses of institutional racism and critical race theory to examine Othello shows that issues of race did not begin or end in the time of Shakespeare. The barriers and problems that Othello faced are still present today, even if they appear to have a different face. Examining racism in Shakespeare's Othello, the Moor of Venice reveals how power structures allow Othello to be subjected to racism through language, prejudice against interracial marriage, and failure to assimilate into Venetian society.	Izabell,Slade		Kyle,Bishop	Oral Face-to-Face
A Psychological View into Willa Cather's Character	When Willa Cather published her novel One of Ours, fellow novelists criticized it as a poorly written war novel. Well, they are wrong. One of Ours is not a war novel, it is an expertly crafted perspective into the life of an adolescent boy. Cather's novel captures the inner workings of the mind of Claude Wheeler, a boy living out of place on a Nebraska farm with his family. The behaviors and thoughts displayed by Claude, namely the self-pitting against his family and friends, perspective and inner reflection of self, and actions displaying what others may attribute as "abnormal" behavior, allow its audience to understand behavior and psychodynamics in an adolescent. A culmination of feelings acquired from the opposition with his family and elements of adolescence drive Claude to enlist and fight in World War 1. I will show the complexities and normalities of an adolescent mind within the relationships Claude shows in the first half of the novel. Through his experiences readers are able to relate to Claude's struggles. By discussing how the relationships made in his time enlisted changed the inner turmoil he feels within his home as well as how certain events affected his state of being, audiences can understand adolescent behavior through Claude. His example of a teenage boy growing up invites readers to share in his loneliness and growing pains through a psychoanalytic lens. Each significant character has influenced Claude within his emotions, thoughts, and actions, thus leading to a response of defense mechanisms. This allows a space for understanding and learning I showcase through Freudian theories and actions of young adults. By crafting a character who permits a new understanding and analysis of a young character, Cather created not a war novel, but a character novel.	Madison,Fontana		Kyle,Bishop	Oral Face-to-Face

(Un)Death of the Father: Self-Sacrificing Paternity in Modern Zombie Narratives	<p>While the protective father figure has become an almost ubiquitous trope in a number of genres, the opposite has traditionally been true in the horror genre. Within the zombie narrative, one sees not only an absence of protective father figures, but a general dearth of children in general. However, George Romero's foundational zombie film, <i>Night of the Living Dead</i> (1968), features not only a monstrous father figure but also a monstrous child, a child whose monstrosity arises directly from her father's failure to protect her from harm. As Steven Kirsh writes in the introduction to <i>Parenting in the Zombie Apocalypse</i>, "the <i>Zombie Apocalypse</i> will be unkind to everyone, but it will be especially cruel to children" (5).</p> <p>Only in recent years have zombie narratives explored the possibility of heroic fathers and father figures, valiant protagonists who risk everything to keep their offspring safe. Whereas many of these heroic fathers are portrayed somewhat as superheroes, more recent filmic iterations of the figure are far more mundane, and, thus, more relatable. In particular, the films <i>Maggie</i> (2015), <i>Train to Busan</i> (2016), and <i>Cargo</i> (2017) all feature "everyman" protagonists who stop at nothing to protect their children from the dangers of a zombie apocalypse, with varying degrees of success and outcomes.</p> <p>Post-apocalyptic tales in general, and zombie narratives in particular, have begun to provide paternal fans of the genre safe spaces in which to explore a progressive masculinity that presents fatherhood, child rearing, and a nurturing nature as not only possible but also preferable to more traditional depictions of (hypermasculine) paternity. By humanizing the zombie threat, these kinds of films represent a softer, more sensitive exploration of the apocalypse, one more in line with zombie fans from the 2000s, many of whom are likely facing the issues and challenges of parenthood.</p>	Kyle,Bishop	NA,NA	Oral Face-to-Face
The Greif of Men: Looking to Milton on how to Properly Express Greif as a Man	<p>At some point in a man's life, they will most likely have heard the phrase "boys shouldn't cry" or "don't be so 'girly.'" As an over expressive man myself, I have heard phrases like this throughout my childhood and watched as my male peers then cloister their emotions away from view and then lash out in other unhelpful ways. Sentiment like this has been present in English culture for centuries. In the 16th and 17th centuries, Sir Walter Raleigh and Patrick Simon characterize male grief and emotion as something to be hidden or done performatively in a religious or patriarchal way. While more restrictive than cultural norms today, Raleigh and Simon offer insight into how men should properly express grief.</p> <p>However, John Milton's work reveals pushback against centuries old traditions and cultural norms that dictate how men should express grief. Within <i>Paradise Lost</i>, <i>Epitaphium Damonis</i> and several other poems, Milton shows masculine characters expressing grief characterized by rage, fear, tears, and longing. By placing men in emotional positions like this Milton 'normalizes' men grieving in ways that openly signal grief and other emotions. From the longing and tearful narrator of <i>Epitaphium Damonis</i> to the Rage of Adam in the Garden of Eden, Milton allows masculine characters the ability to express themselves in ways contrary to the cultural norms of the time.</p> <p>Looking at the work of Simon and Raleigh as cultural writings of the time and comparing it to modern investigations on male expression reveal that not much has shifted culturally since Milton's time. Despite this cultural hegemony, Milton's conception of male grief subverts traditional expectations and allows for looser interpretations and presentations of masculine grief to exist within the broader culture.</p>	Daniel,Delap	Jessica,Tvordi	Oral Face-to-Face
Expectations of Women in Othello and Much Ado About Nothing	<p>From the time I was little I was told all the things I ought to do as a woman to attract the attention of a man. These rules confused me, so I ignored them. As I got older, I learned that these rules were established by men as a way to control women and that since I was undermining their authority by acting out, they'd make sure I suffered for it. This patriarchal control is not new. It's been around for hundreds of years. It's illustrated in Shakespeare's plays <i>Othello</i> and <i>Much Ado About Nothing</i>. Both works feature strong women who stand up to the status quo in their own individual ways, but ultimately end up suffering the consequences.</p> <p>Relying on a historical framework based on a document from the time outlining what a "perfect" woman ought to be, I analyze the various women in the texts and the ways they stood up to the expectations of the men in their lives. I begin with <i>Othello's</i> women, Desdemona and Emilia, citing ways that they are different but showcasing that they are both strong and ultimately suffered death at the hands of their husbands due to unjust accusations. To further prove the point, the following section analyzes Hero and Beatrice from <i>Much Ado About Nothing</i> and how they struggled with the false accusation regarding Hero's chastity.</p> <p>Throughout history women have been trapped and controlled by the expectations of patriarchal society: namely being forced to take on the delicate, feminine role in a marriage and maintaining their virginity until marriage. The consequences of directly or indirectly defying these expectations are quite dire. An in-depth analysis of Shakespeare's women under a historical lens showcases this oppression and reveals that it is still a relevant issue that women continue to struggle with today.</p>	Camille,Osborn	Kyle,Bishop	Oral Face-to-Face
"Assessing the Xing Moment: A Fulbright Year in Taiwan"	<p>Chinese literature invites the reader to contemplate 'bi,' an imaginative comparison or contrast that places things side by side, against or parallel to each other. By pondering the comparison or contrast of 'bi' in a Chinese poem, the reader experiences 'xing,' an epiphany opening up new mental vistas. K'ung-fu-tzu, or Confucius, indeed believed that this "xing" is the [very] purpose of poetry because it causes —the mind to contemplate its subject deeply." During my sabbatical year as a Fulbright professor at National Taiwan University in Taipei, I repeatedly saw students experience 'xing' moments as they brought familiar elements of Chinese literature and culture alongside less familiar elements of American literature—from American poets from Bradstreet to Ashbery, from American novelists from Twain to Cather. These 'xing' moments illuminated both the commonalities linking the Chinese world and the American and the sharp differences separating them.</p>	Bryce,Christensen	N/A,N/A	Oral Face-to-Face
The Female Series	<p>Outdoor recreation favors traditionally masculine modes of engagement with nature, erecting barriers to female participation, especially in adventure sports. This study reports on the success of a university program in connecting women and empowering them to find their place in the outdoor community. Survey results indicated that being in a natural environment was the primary motivation for engaging with nature followed by personal development and social interaction. Especially noteworthy were women's gains in self-confidence. This was reflected in participants reporting learning new skills (e.g., repelling) as a program highlight.</p>	Mary,Peek	Julie,Johnson - Pynn	Oral Face-to-Face
IRB 101: A User-friendly Introduction to Navigating SUU's IRB	<p>This presentation will provide a basic introduction to (a) how the SUU Institutional Review Board (IRB) reviews applications for human subjects research, and (b) how to prepare IRB applications. IRBs follow rules set for by the federal government; rules that recently were revised into what is known as the "revised Common Rule". This workshop will provide an overview of how IRBs evaluate research applications with an emphasis on practical advice for the attendees. The recent changes will be highlighted in the workshop.</p> <p>Researchers submitting IRB applications would benefit by understanding how IRBs approve proposals. IRBs approve research proposals by fitting proposals to available "approval" categories, most of which are provided by the federal regulations. For example, one kind of approval is exemption category 1 for standard educational practices. The recent federal regulations update has changed some of the categories and how IRBs are advised to monitor them. We will also discuss the various levels of regulation that IRBs follow, including federal, state, institution, and each IRB's own policies.</p> <p>Perhaps the most important thing in an IRB application is the consent document. The workshop will provide practical advice for how researchers should approach this critical part of the IRB application. Also, we will discuss changes to the federal regulations for the consent document, including a new required section on the consent form (the "key information"), a new type of consent ("broad consent"), and new requirements for clinical researchers to post consent forms on specific webpages.</p> <p>Audience members are encouraged to bring questions.</p>	Bryan,Koenig	n/a,n/a	Oral Face-to-Face
Toxic Positivity: You'll Get Over It... but Should You?	<p>Toxic positivity is a new idea: the only way to live is to excessively overgeneralize a happy state across all situations. This results in denial and invalidation of emotional experience. Avoiding negative emotions is unsustainable and only makes them more complicated. Those who accept feelings without judging them have been linked to better psychological health. Common examples of toxic positivity are statements like "it could be worse" and "everything happens for a reason." A more validating statement is "it's okay to not be okay." These sound familiar because toxic positivity is a prevalent mindset in our society. Mental health problems have surged to historic levels, something toxic positivity may be exacerbating. A key mechanism that toxic positivity works through is emotional avoidance. My study's intent was to test the validity of the "Toxic Positivity Test" against an existing emotional avoidance scale. Evaluating the test will provide a way for me to further research this concept of emotional experience.</p>	Jamie,Keller	Kevan,LaFrance	Oral Face-to-Face

The Negative Backlash of Ginsberg's Positive Intentions in "Howl"	There has been a question that has not only become more complicated in the 21st century, but more common alongside it: how would you react to your child if they came out to you as gay? In recent decades a strong majority of parents would say, "I would still love them, they are still my child after all." Now, it seems hard to believe that was ever the case, but sixty years ago the perspective of same sex relationships was entirely different. LGBTQIA+ representation in the 20th century was rare and complicated, often depicted as a tragic struggle to overcome and downright sinful in every way. Many members of the community pushed back against these negative tropes, including Allen Ginsberg in the controversial poem "Howl." Ginsberg visualized the fears many members of the queer community encountered, whether the people around them knew of their sexual identity or not. The imagery in "Howl" attempted to shift the American perspective on the LGBT community, and in some ways Ginsberg succeeded. There was a push for sympathy and understanding by bringing to light the deadly lives many queer people were forced to live, "I saw the best minds of my generation destroyed by madness, starving hysterical naked" (1). Unfortunately, Ginsberg's use of harsh and explicit imagery resulted in many Americans reinforcing their negative perceptions of queer people. Sexual freedom and equality was taboo (especially in many religious communities), which consequently pushed people from understanding what "Howl" was attempting to do. The social consequences, both positive and negative, are important in understanding the overall response to Ginsberg's poem; by comparing that with the complicated history of queer people in America the unending uphill battle in the fight for LGBTQIA+ equality will come to light.	Dylan,Johnston		N/A,N/A	Oral Face-to-Face
Speaking of Change: Writing Center and Speech/Presentation Center Collaborations	Although change can be intimidating, it can also be an exciting process of growth and development. Collaboration between writing centers and speech/presentation centers allows for research to be conducted and encourages further change and development in each institution. As the centers change and become better through this mutually beneficial relationship, they develop a sense of community and an increased motivation to enhance their Writing Center's resources.	Sarah,Penner		N/A,N/A	Oral Face-to-Face
Should College Student's Delay Marriage?	The current study also aims to explore whether marriage during the college years hinders professional aspirations and educational pursuits. There is a lack of research done on married emerging adults who are in college, most likely due to the scarce number of couples who marry while attending college. The literature of EAs in general has not been representative of all regions, focusing primarily on urban areas with participants from large colleges and universities. It is our aim to identify current perceptions and benefits (or drawbacks) of marriage among college students who attend college in a rural area in the United States, in order to see if marriage during emerging adulthood is a bad idea, as many emerging adults believe (Kefalas et al. 2011). We predict that unifying in marriage while attending college improves the overall support and growth of individuals and couples and does not inhibit or restrict them from their educational and/or professional pursuits. In addition ,we predict those who marry while attending college find the marital experience to be positive. This study utilizes a mixed methods explanatory sequential design (Creswell & Creswell, 2018) combining quantitative methods used by Willoughby and Hall (2015) and qualitative methods used by Shulman and Connolly (2013). Our plan is to recruit students at Southern Utah University through various platforms to complete the survey. These students generally come from rural areas throughout the western United States. At the end of the survey, students can indicate whether they would be interested in participating in a focus group interview in order to gather qualitative data. The research design for phase 1 of this study will be a 2 x 4 ANOVA to test whether gender (100 males and 100 females) and length of marriage (three levels include less than 1 year, 1-3 years, more than 3 years). A high score indicates positive perceptions of marriage and a low score indicates negative perceptions of marriage. The research design for phase 2 will involve transcripts from the interviews that will be analyzed for common themes that emerge from semantic content. We will present results that will include results include main effects of gender and main effects of length of marriage, as well as a potential interaction of gender by length. Collectively, gathering data pertaining to the questions both on the survey and in the focus groups will enhance our understanding of marriage among EAs.	Kelton ,Jacobsen		Jim,Mock	Oral Face-to-Face
"Camera Obscura"	A suspense/thriller video and a behind the scenes video of the making of the suspense/thriller style video.	Ryan,Sunderman	Jon Smith, Tomas D'Anella, McKayla Olsen, Skyler Ball, Lexi Jusino, Rhys Kaiser, Rebekah Riggs, Nathan Riser, Tarryn Rowley,	Jon,Smith	Oral Face-to-Face
Witchcraft and Femininity in Othello: Unmasking Male Deceivers	The Early Modern Period in European history possessed witch trials and accusations against women that incorporated slander, the assumed loss of chastity, and adultery, which are seen in Othello and Much Ado About Nothing. Seemingly unrelated, these topics have clear connections in how men are the accusers, relying upon sight and words of other males to establish accusations and spread their ideals on femininity. Thus, causing drastic consequences, not implicitly affecting men who accuse, but women who suffer in male constructed silence. Historians and historical documents: the Suffolk Trials of 1645, the Chelmsford Trials of 1566, Antoninus of Florence's "On Diverse Defects of Women Using the Alphabet," the Malleus Maleficarum, Tertullian, and the Bible, depict females as 'natural' deceivers, akin to the Devil. Due to countless implications of women being in league with Satan, men continually remained blameless for their actions, burdening females with men's deeds. However, Shakespeare skews the notion of a female deceiver, acknowledging that men possess deceptive natures. Through examining how Othello and Much Ado About Nothing stray from tradition and result in alterations from perceiving females as deceivers to males as such, I will compare and contrast witch trials of the early modern period to Shakespeare's works to illustrate such changes. While this radical modification signifies men should be held accountable for their actions, they are not and are unable to see their faults. I aim to expose the reality and repercussions of condemning females by comparing views on women depicted in the Bible, trials, and historical sources to Shakespeare's works. Revealing that only women were able to see men's flaws and that the portrayal of women as witches removed the impact behind their words, when discredited by men who professed their love, and rather than whisper sweet nothings, spoke of strumpets, stales, whores and filth.	Sydney ,Jensen		Kyle ,Bishop	Oral Face-to-Face
Expectations and Effects of Body Hair Removal	Women, specifically in Western society, face a double standard when it comes to body hair. In my experience, women are told from a young age that having hair on your legs, underarms, and other areas of the body decreases the desirability, attractiveness, or even merit as a woman. That being said, men not only have less pressure, but have cheaper and better quality hair removal products despite the fact that male body hair is not a societal issue or enforced beauty standard. My research explores the differences in perception of body hair, as well as how the views and treatment of body hair affect body image and confidence for both men and women.	Alison,Bench		Matthew,Eddy	Oral Face-to-Face
The Greek Hero Jason from an Adlerian Psychological Perspective	Greek mythology contains many stories. These stories have various heroes all with their own interesting aspects and flaws. This presentation will explain the hero, Jason, from the story Jason and the Argonauts. More specifically, it will explain him through the psychologist Alfred Adler's viewpoint on personality. This will include a discussion about how things like lifestyle, finalisms, and birth order could have affected the Greek hero.	Clayton,Cox		Kevan,LaFrance	Oral Face-to-Face
		Paige,Branstetter		,	Oral Face-to-Face
Using Tolerance of Ambiguity to Better Understand Climate Change Beliefs	The concern for climate change seems to have a consensus in the scientific community but not for the American public. Previous research has indicated that political orientation is strongly associated with climate change beliefs. This study examined the underlying personal trait of tolerance of ambiguity and how its association to political orientation could predict climate change beliefs. Using a mediated model, our results revealed that tolerance of ambiguity could predict climate change beliefs mediated by political orientation.	Mikey,Savage		Bryan,Koenig	Oral Face-to-Face
Perception of Likeability related to Gender Ambition	This presentation is a study on the perception of ambition related to gender and people's perception of a person. A single story, with pronouns and names replaced will be given to two different groups. They will receive either the "male" story or the "female" story. The story is of a very ambitious and confident person. The medium for this story will be a short inspirational speech given by myself, Ashton, and another experienced colleague. After the story, they will be asked to describe the person and choose adjectives from a list to describe them. The hypothesis is to see that based on gender, if the perception of the likeability of a person changes. Based on studies from the past, it is anticipated that the female will be regarded as less friendly and less likeable, while the male will be seen as a capable leader. We will compare this study to others from the past to see if gender role perception has changed over time as well, but this is mainly speculative.	Ashton,Weagle		Katherine,Saldana	Oral Face-to-Face

Women's Contributions to Science, Medicine, and Society Through Time	The Students of SUU 2250: Women and Medicine will be presenting a collective timeline of women's contributions to science, medicine, and society, noting the ways that women have played a pivotal role in scientific advancements, been forerunners in the field, and defied gendered expectations.	Laura,Davis	Dr. Carrie Jo Bucklin, Sheron Babbitt, Alessia Cavalli, Monica Clevon Monjuil, Alexia Davis, Ellie Demik, Keaten Gaskill, Ellie Swann, Lyndee Young,	Laura & Carrie Jo, Davis & Bucklin	Oral Face-to-Face
Reducing Political Polarization Through Inoculation	This study was conducted to try and reduce political polarization. When people read emotionally-charged, political messages previous research has found they become more extreme in their views. Research in the past has also found that political polarization is occurring in the United States. Research on how to reduce this has previously been inconclusive. We found relevant research and decided to use the theory of inoculation. We used Reactance scales and political ideology difference to measure political polarization when participants were exposed to political messages. We predicted that participants who were exposed to an inoculation message would score lower in Reactance, and not change in political ideology. In other words, we hypothesized that the inoculation message would reduce political polarization. Data is in the process of collection, and will be analyzed.	Kenady,Dix		Garrett ,Strosser	Oral Face-to-Face
Disruption and a Sense of Place	A multi-genre reading of fiction, poetry, and nonfiction that addresses the concept of a defining a Sense of Place in light of the disruption of the pandemic as well as other political and environmental events.	Danielle,Dubrasky	John Belk, Laura Walker,	N/A,N/A	Oral Face-to-Face
Eco-poetry, the Essay, and the Lyric Sequence	This is a presentation of poetry and essay that reflects the work of two advanced creative writing classes--"Eco-poetry and the Essay" and "Advanced Poetry Writing: A Study of the Lyric Sequence."	Tiffany,Acre	Nicole Burton, Kai Lameman Cassidy Wallace	Danielle,Dubrasky	Oral Face-to-Face
Classroom Participation: Gender Influences on Student's Participation	Class participation can increase a student's critical thinking skills, understanding of the course content, and create a greater sense of belonging. When students do not participate, they can be seen as passive, uninvolved, and unprepared. This research helps to identify factors that make students uncomfortable to participate in the classroom. Specifically, this research looks at gender factors such as gender of the professor, gender of the student, and gender ratio of the class. I distributed a survey to Southern Utah University students to find out what influences their participation in classes and what makes them feel most comfortable in a class. When a student feels more comfortable, they are more likely to participate. The findings of this research can be used to generate classes conducive to higher levels of participation and make professors and students aware of any gender biases they may have in the classroom.	Calista,Johnson	Yvonne Bissot , Paige Branstetter , Sarah Draper , Autumn Gillard , Melissa Harris , Christer Mercado , Abigail Stanworth	Emily,Dean	Oral Synchronous Remote
Social Media Interaction and Self Expression in Rural vs. Urban Communities	Research conducted in the field of digital anthropology has discovered that many younger adults around the world have turned to social media platforms to express themselves along with their societal and political beliefs. In locations of conservative censorship or highly religious communities, the use of social media has also become more popular in these regions because it has been a way for individuals to hide their true identity from others but still push the ideas and topics that they stand for. Topics of racial inequality or police brutality are being discussed and brought up more in the world of social media, with many people getting their knowledge on issues from their screens. With the rise of this new way of collecting information, it needs to be addressed just how much involvement social media platforms have in the shaping of personal beliefs and a switch in how others introduce themselves or discuss important topics. The goals I am trying to receive while researching this topic is to discover a connection in changes between self expression and how a more online attitude is going to affect how people learn about various cultures or political topics. Collecting information from urban locations and conservative rural communities would be a preferred method to find contrast or similarities. Instead of collecting "yes" or "no" statements from those I interview, I will gather actual data or figures from participants and fully explained statements to build a better connection as well as more accurate information. The questions and comments I have created for my survey have been formatted to be open end statements where the interviewer can speak as much as they want or have a less constricted way of answering. Identities of the participants will remain confidential unless they choose to be in the research.	Paige,Branstetter		Emily,Dean	Oral Synchronous Remote
Native Gardens at Pipe Spring National Monument and the Southern Paiute influence: A look at the gardening talents of the native people of the Colorado Plateau and the utilization of the Pipe Spring Aquaphor and its life-giving forces of 10,000 years of human history	The Colorado Plateau has served as a living space for indigenous people dating back to at least 12,000 years. When speaking to the native people from this region one will learn they have been here exceeding the time stamp placed by Anthropologists and Archeologists that have worked in the area. Pipe Spring is located within the boundaries of the Kaibab Paiute Indian reservation and has provided a water resource for generations of native people to utilize through out time to sustain themselves as agrarian cultures. Pipe Spring National Monument preserves the history of a 1,000 years of gardening around the water resource which is crucial to such an arid environment for sustainability. Tribes living along the plateau that have utilized Pipe Spring are the Archaic Native people, Ancestral Puebloans, Southern Paiutes, Utes, Hopis, and Navajos. This research will provide a look into the gardening talents of these tribes as well as the types of gardens grown around the Pipe Spring area. One will also gain an understanding of the current knowledge of contemporary Native people that descend from the named tribes and their current knowledge of Native high desert gardening skills. Oral history interviews will also be conducted with tribal elders from the Southern Paiute Nation to help preserve the oral history knowledge of the Southern Paiute people's gardens around the Pipe Spring area. This research will serve as a reference for Southern Paiute generations in the future to have culture knowledge of ethnobotany skills and sacred cultural connections to plants as a Southern Paiute people.	Autumn,Gillard	Yvonne Bissot Paige Branstetter Sarah Draper Autumn Gillard Melissa Harris Calista Johnson Christer Mercado Abigail Stanworth	Emily ,Dean	Oral Synchronous Remote
Choosing Medicine: my look into cultural influences on medical choices	The project I am completing and will be presenting at the Festival of Excellence is a senior capstone for my B.A. in anthropology. The title of the research project is Choosing Medicine: my look into cultural influences on medical choices. This project will be an anthropological survey in which I will seek to understand how people's cultural factors play a roll in what types of medical choices they make and why. In every culture or society there exists some form of "medicine" that is commonly referred to or practiced. In the United States for example, our societal medical system is that of Western medicine with doctors, nurses, prescriptions and surgery. Other societies may have access to these, but may widely practice another form of medicine such as ayurvedic medicine in India. Within a mixing pot country such as the USA however, there are many regional medical choices and practices adopted by the micro-cultures present. Great examples of this in today's America would be herbal medicine, essential oils, and acupuncture. My research seeks to broaden the current understanding we have of people medical choices and could be useful in helping both medical practitioners and educational parties better gear their means of care.	Christer,Mercado	Yvonne Bissot Paige Branstetter Sarah Draper Autumn Gillard Melissa Harris Calista Johnson Abigail Stanworth	Emily,Dean	Oral Synchronous Remote
Fire and Settlement in the Prehistoric North American Southwest	Fire is an historically important driving force in the ecological development and maintenance of the regional north American southwest. This research project will examine the role of fire in the prehistoric north American southwest through the careful analysis of records of its impact on ecology, lifestyle, and settlement patterns of the indigenous peoples that live and have lived therein. The aim of this research is to elucidate any correlation between the late 1200's perceived abandonment of the permanent cliff dwellings and large city settlements of the region by the ancestral Puebloan peoples, which is seen present in the archaeological records of North America, and the changing use and occurrence of fire in the region as is congruous with a known protracted period of drought during this time. Climactic records of the North American continent from around the 13th century will be analyzed along with both current and historical ecological data on fire in the region. Special attention will be paid to the analysis of the interaction between fire and the spread and effects of piñon-juniper forest on water availability and cultivative capacity of land. Indigenous agricultural techniques explicit to the region will be examined to highlight the differing nature of cultivation of land by fire and modern precepts of agricultural cultivation of land precluding fire. Findings provided by this research will promote greater understanding for, and help to develop new pathways of analysis concerning the question of the role of fire in the North American Southwest.	Yvonne,Bissot	Paige Branstetter , Sarah Draper, Autumn Gillard, Melissa Harris , Calista Johnson , Christer Mercado , Abigail Stanworth , Yvonne Bissot	Emily,Dean	Oral Synchronous Remote
Social Connection in a Pandemic World	Key words: fire, pyrology, agriculture, indigenous Americans, North American Southwest, Ecology, Climatology, Archaeology  How do people maintain community and social bonds during a pandemic that requires social distancing precautions? More research into safe and effective maintenance of community and friendship could help provide insight into how to find a new normal as we adjust to the COVID-19 pandemic. Connection is important during times of stress and separation, but there hasn't been a lot of research regarding social interactions on a college campus during a pandemic. Through a survey and some student interviews, this research project aims to evaluate the ways in which students have adapted to pandemic restraints. This could shed light on how we as students and as a University can best support our fellow T-Birds.	Sarah,Draper	Yvonne Bissot Paige Branstetter Autumn Gillard Melissa Harris Calista Johnson Christer Mercado Abigail Stanworth	Emily,Dean	Oral Synchronous Remote



Life in the Death Zone: Why People Climb High Altitude Mountains	There are 14 mountains taller than all others in the world, and people die on these mountains every year. People have been climbing these mountains, all taller than 8000 meters, for less than a hundred years. In spite of the risk, for example some mountain summits have a 1 in 3 mortality rate, people still flock to climb them. My research attempts to find out why people climb these mountains. I explore the risks present in climbing such mountains, and using surveys and biographies I will attempt to better understand why people are willing to die to reach these summits. I will use my research paper as the basis for this presentation. This will include background on climbing the 14 eight thousanders, the risk in climbing such mountains, an overview of the responses about why people climb, including a contrast to climbers who do not climb in high altitude, and finally a conclusion summarizing the results I found.	Abigail,Stanworth	Yvonne Bissot Paige Branstetter Sarah Draper Autumn Gillard Melissa Harris Callista Johnson Christer Mercado	Emily,Dean	Oral Synchronous Remote
Does Cohabitation Lead to Better Relationships/Marriages?	I will be debating both sides of whether or not cohabitation leads to better relationships and marriages. I will go through facts about why cohabitation does not lead to better relationships, and I will go through facts about why cohabitation does lead to better relationships.	Brooke,Larson		N/A,N/A	Oral Synchronous Remote
The Rapunzel Effect: Personality and Coping during COVID-19	The research examines whether personality types, gender, and living situation (roommates, living alone, living with a partner) affected participants' coping during COVID-19. Southern Utah University undergraduate students (N = 141) were asked to fill out a survey that assessed hope and coping. Qualitative data was collected through an open-ended question asking how the person coped with the pandemic. Results showed that males had higher levels of coping and hope than females overall, and that aies with roommates coped the best. There was a trend towards extroverts coping better in general than introverts and ambiverts. Females may have scored lower than males because they employ emotion-based coping rather than problem bases, which is dominant in males. Additionally, the cultural standard of males being less reactive to stressors could be applied (Khan, Ara, & Salim, 2012). Extroverts tended to cope better because they were getting sufficient social interaction from those they were living with. Common themes in the qualitative data regarding coping were indifference, sadness, frustration, and anger, which are all inherently negative emotions and not associated with feeling hope (Snyder 2002). The disconnect between quantitative and qualitative will be discussed.	Hannah,Grieco		Julie,Johnson-Pynn	Oral Synchronous Remote
The Mental Health Support Peers	Southern Utah University Counseling and Psychological Services (SUU CAPS) Mental Health Support Peers are skill and tool trained Psychology Seniors at Southern Utah University working under the leadership of the clinical staff at SUU CAPS and the mentorship of the SUU Psychology Department. Mental Health Support Peers work alongside students experiencing mental health challenges. Peer Mentors support students through group and individual outreach in order to teach and transfer mental wellness skills in the service of connecting students with clinical supports/therapeutic alliance. SUU CAPS Peer Mental Health Support Peers also refer students to campus and community wellness resources, and lead and deliver outreach education on student mental wellness. The Mental Health Support Peers work from The SUU Health and Wellness Center and collaborate with interdisciplinary and cross-campus mental wellness, student affairs and academic teams to provide students with wraparound and intersected opportunities for success and belonging at Southern Utah University.	Karina, Jessie, Andrea, Tyler, Victor,Nay, Mineer, Donovan, Tatton, Carvajal-Lopez		Andrea, Jessie, Donovan, Mineer	Oral Synchronous Remote
Political Polarization of Attitudes towards Rights and Restrictions to Combat COVID-19	In this presentation, the SUU CAPS Mental Health Support Peer Team, consisting of Karina Nay, Tyler Tatton, and Victor Carvajal-Lopez, will be presenting on their work within this program. The Peers will be joined by SUU Health and Wellness Center Coordinator, Jessie Mineer, and SUU CAPS Mental Health Peer Program Coordinator, Andrea Donovan. In this discussion, we will highlight our training, mental wellness partnerships with other teams on campus, and the referral process. We will conclude our presentation by reviewing our Southern Utah University International Review Board-approved program evaluation. In the service provision evaluation, students are invited to describe their experience working alongside the Peers. The data collected through this survey helps us to continue to develop best practices within the Mental Health Support Peer Program.	Lynn,White	Laura Poulton Baillia Milne	N/A,N/A	Oral Synchronous Remote
A Misunderstood Feminist: Shakespeare	Despite empirical support for the use of masks, social distancing, and hand washing as effective measures to prevent the spread of COVID-19, adherence and support for these measures remain variable. Some of this variability is likely attributed to: ignorance related to viral transmission, denial that the virus poses a significant health threat, confusion stemming from mixed messages delivered by scientists and government officials, "COVID-fatigue", economic pressures that are at odds with COVID-19 personal and public restrictions, political party affiliation, culture orientation (collectivism vs. individualism), and perceived wellbeing. We surveyed 982 individuals from colleges and university campuses across the United States with the goal to identify those variables that predict support for COVID-19 restrictions and the intention to get vaccinated. The survey included: demographic questions, the Culture Orientation Scale (Triandis & Gelfand, 1998), and the Perceived Wellness Scale (Adams et al., 1998). Other questions asked about: personal experiences with COVID-19, knowledge of other people with COVID-19, extent to which respondents believe what the scientists and federal government are saying about the pandemic, and political party affiliation. Key findings included, 1. Support for COVID-19 related restrictions and intent to get vaccinated were predicted by different sets of several demographic and non-demographic variables. 2. Political variables were the strongest predictors of both COVID-19 restrictions and intent to get vaccinated. 3. Support for COVID-19 restrictions and intent to get vaccinated were predicted by the extent to which respondents believed what the scientists (but not the federal government) was saying about the pandemic. 4. Compared to Republicans, Democrats were more in favor of COVID-19 related restrictions, expressed a greater intent to get vaccinated, perceived the pandemic as being serious, and expressed a greater belief in what the scientists were saying. Several variables to explain these results will be discussed.	Bingying,Yan		Kyle,Bishop	Oral Synchronous Remote
The Effect of Screen Time, Physical Touch, and Perceived Social Support on Optimism before and During COVID-19	Shakespeare is not considered as a feminist in his plays by some scholars in modern days, for many of his female characters who do not follow the patriarchal lead seem to turn to a tragic end. In Othello, Desdemona wholeheartedly loves and supports her husband, Othello. However, she lost her husband's love and was killed by Othello once she tried to interfere with her husband's decision. In Henry VI, Part 3, Queen Margaret can not only lead the army but also have a higher authority than her husband. However, such a strong woman is accused to be inhuman and not feminine through the narrative in the play. She was finally defeated by the male-leading enemy, the Yorkist. Given the two major female characters, it seems not hard to come to the conclusion that Shakespeare seems to align more with patriarchal lead and oppose to females who want to cross the line. Nevertheless, the female characters in the given two plays are more complex than that. They seemed to live under the shadow of their husband and the patriarchal society, but they also used their advantages to somehow affect men's attitude and choice. Queen Margaret shows her femininity as a loving mother when considering her son, but she also chooses to be more masculine when fighting against the Yorkists with her idle husband. Similar situation in Othello. Desdemona's elopes from her father which indicates her willfulness and independence from men to some extent. When Iago insulting Emilia, Desdemona also voices up and shows how women support each other. All the behaviors reflect their strongness and power in different aspects. Thus, with a focus on the plays Othello and Henry VI, Part 3, Shakespeare shows how willful women fight against the patriarchy and choose their gender performativity to achieve their goals.	Lynn,White	Madison Hiss Laresa Coles	N/A,N/A	Oral Synchronous Remote
Groundwater Management Priorities in the Cedar Valley	Several variables stand out as important determinants of suicidality. Hirsch et al. (2007) reported that dispositional optimism can mitigate the effect of negative life events on suicide ideation and attempts. Conversano et al. (2010) concluded that optimism for the future is positively correlated with both mental and physical well-being, as well as the effective use of stress coping strategies. Perceived social support (PSS) has been linked to all aspects of suicidality (see King & Merchant, 2008). The effect of physical touch in conjunction with PSS has received relatively little attention. Screen time (the amount of time people spend looking at an electronic screen) has come under recent scrutiny. Twenge et al. (2018) postulated that adolescents' increase in depressive symptoms and suicidality from 2010-2015 is attributed to increased social media use. In our study, we explored putative relationships among screen time, PSS, interpersonal touch, and optimism for the future. Serendipitously, we collected data immediately before and during the COVID-19 pandemic, providing us with an important opportunity for comparison. Undergraduate students completed a demographic survey, a question to address the frequency of meaningful interpersonal touch, the Interpersonal Support Evaluation List-shortened version (Cohen et al., 1985), and an optimism questionnaire. We found that with that with one exception as PSS increased, screen time decreased. With one exception as touch increased, PSS increased. For both sexes, perceived vitality was the strongest predictor of optimism before and during the pandemic. Different subcategories of optimism and PSS predicted perceived vitality. The number of these factors grew during the pandemic for both sexes. We found significant differences between men and women, as well as pre- vs during the pandemic on daily average screen time and various subscales of optimism and PSS. These findings have important implications for overall well-being before and during an exceptionally stressful time.	Randall,Huyck		Matthew,Eddy	Oral Synchronous Remote

The Tanner Center Student Story Project	Students enrolled in the Tanner Center Certificate of Human Values will share stories addressing this year's theme of "Building Cultures of Meaning."	Laurel,Buxton	Michele Gross John Moore Liz Larson Jensen Lambert  Deirdre M. McCoy Samuel Stewart Courtney Wynkoop	Danielle,Dubrasky	Oral Synchronous Remote
Coronophobia's Effect on my College Experience	This research was undertaken to study the relationship between two personality factors, neuroticism and openness, regarding the likelihood of students following the COVID-19 pandemic health guidelines. We also analyzed spirituality and gender factors. Participants (N = 454 SUU students) were asked to complete a survey using selected items from the Big Five Inventory (BFI) and questions concerning following health guidelines. Data were analyzed using mixed design ANOVAs and t-tests. Consistent with previous pre-COVID studies, women scored higher in neuroticism than men. Additionally, they were more likely to follow health guidelines than men. For both, the health behaviors they followed, (i.e., from most to least frequent) were covering their cough, hand washing, monitoring symptoms, wearing a mask, cleaning and disinfecting often, and socially isolating. Those who reported being spiritual were less likely to wear a mask than those who did not identify with a religion or being spiritual. Our findings highlight that personality traits, gender and spirituality can be important factors in identifying people who are likely to take risks and experience anxiety during expected life events, like a pandemic.	Laresa,Coles	Aidan Brassfield,	Julie,Johnson-Pynn	Poster Face-to-Face
People's Endorsement of Deterrence Best Predicts Their Moral Punishment Preferences	In this study we looked at four proposed explanations for why people punish wrongdoers: deterrence theory, retribution theory, welfare tradeoff ratios, and fitness differentials. Deterrence focuses on preventing specific individuals from committing a crime or everyone from committing a crime (Bentham, 1823). In contrast, welfare tradeoff ratio theory argues that punishment deters wrongdoing by increasing how much value someone gives potential victims compared to their own value (Petersen, Sell, Tooby, & Cosmides, 2010). The traditional retribution approach (just desserts) argues that people should punish in proportion to harm done (Carlsmith, Darley, & Robinson, 2002). Fitness differential theory predicts punishment should be sufficient to offset the gain perpetrators reap over their victims (Price, Cosmides, & Tooby, 2002).  Participants were 383 workers on Mechanical Turk who completed our study online. We looked at participants' endorsement of each of the four justification of moral punishment. We evaluated how well endorsement of those justifications predicted the same participants' punishment preferences across two theft scenarios. The first scenario detailed a case of theft where the monetary amounts of victim loss and perpetrator gain were independently manipulated. The second scenario manipulated the relative loss and gain by changing the career of the thief or victim while the amount stolen constant across scenarios.  Correlations indicated that endorsement of punishment justifications positively correlated with all measures of punishment preferences. We did multiple regressions predicting punishment preferences from endorsement of all four justifications of moral punishment. In all cases, deterrence justification was still a significant predictor of punishment preferences. In one case, welfare tradeoff ratios was also significant. Overall, our findings suggest that the degree to which people endorse deterrence as a rationale for punishing wrongdoers is the best predictor of the magnitude of punishment those people prefer.	Kenady ,Dix		Bryan,Koenig	Poster Face-to-Face
Effects of make-up on the perception of sexual interest in a speed-dating context	Several studies have found that men and women project their own level of sexual interest on to members of the other sex. All evidence to date supporting such projection of sexual interest are correlational. Our research tests this possibility using experimental methods in a speed-dating context. We attempted to manipulate men's level of sexual interest by having women wear different amounts of cosmetics. Our final sample comprised 82 men and 104 women, with 552 dyadic interactions. Surprisingly, the make-up manipulation failed: men did not have significantly greater sexual interest in women wearing cosmetics as compared to women without cosmetics. Men also did not think women wearing cosmetics had greater sexual interest than women without cosmetics. Despite the failed cosmetics manipulation, our study replicated prior findings. Men overperceived women's sexual interest. Women underperceived men's sexual interest. Men and women projected their own levels of sexual interest onto their dating partners.	Mikey,Savage	Laresa Coles,	Bryan,Koenig	Poster Face-to-Face
Children & Families Affected by COVID-19: Child-Parent Relationships, Experiences, and Stress	The present study was undertaken to investigate how the lives of children and families were affected by the COVID-19 pandemic. Prior research suggests that the mental and physical health of children and families have been impacted by the pandemic in primarily negative ways (Henderson et al., 2020). We will be investigating how child-parent relationships, screen time, physical activity, and health behaviors have been impacted by the pandemic. The effects of this unexpected life event can be measured through child-parent relationships, perceived stress, and lifestyle activities during the pandemic. Participants were asked to complete a survey using modified items from the Child-Parent Relationship Scale (CPRS), A Global Measure of Perceived Stress, and questions regarding changes in lifestyle during the pandemic. We predict that parents' quality time with their children will increase; while children's time spent with peers and in extracurricular activities will decrease. It is expected that stress levels, and screen time of parents and children will have increased when compared to pre-pandemic conditions. We predict that those who report a better child-parent relationship will also report less stress than other participants who did not report a good relationship. Data will be analyzed using mixed design ANOVAs and t-tests. By conducting research on these basic human activities, we can better understand children and family responses to unexpected life events, such as a pandemic. The results from this survey will contribute to the current literature and can be used to better understand and prepare for unexpected life events in the lives of children and families in the future.	Laresa,Coles		Daniel,Hatch	Poster Face-to-Face
Purpose of Alter Egos in Rap	Looking at how rappers often use an alter egos to express diverse forms of authenticity through their lyrics.	Kekoa,Sasaoka		Matthew,Eddy	Poster Face-to-Face
Are Parents too permissive	I will be showing the different parenting styles and arguments for and against permissive parenting.	Caitlin ,Jensen		Clint,Broadbent	Poster Face-to-Face
Are Vaccines Safe For Infants?	Vaccines have always been a controversial topic among students, families, and doctors. There are many who claim that vaccines are vital to the well being and overall health to the individual, but there is also many who claim the opposite. To parents, this is very important in regards to the health of their children. Many parents get the vaccines for their infants and there are some who choose not to vaccinate their infants. Each side claiming that vaccinating their infants is good or bad. Out these two claims about vaccinating, which is correct?	Bailey,Gray		N/A,N/A	Poster Face-to-Face
"Why Doesn't She Report?"	My objective in this presentation will be to review what a vaccine is and how it's supposed to work. Anyone listening to the presentation will come to the understanding of how a vaccine functions, the possible risks, and whether or not vaccinating infants is a good idea or not.	Kaile ,Elder		Laura,Davis	Poster Face-to-Face
Academic Burnout: Testing the Reliability and Validity of the OLBI-A	A cross cultural analysis of the feminist theory of rape culture; gender perspectives on sexual assault and its impact on sexual assault policy.  Academic burnout impacts college students in detrimental ways, but it remains a relatively understudied phenomenon. In order to better understand academic burnout, reliable and valid measurement tools must be developed to effectively measure this construct.  Objective. The aims of the current study were to test the reliability and validity of a modified Oldenburg Burnout Inventory for academic burnout (OLBI-A).  Method. Through an online survey, participants completed the OLBI-A and a quality of college life (QCL) questionnaire.  Results. The reliability of the OLBI-A was evaluated to determine if the internal consistency of the measure was adequate ( $\alpha > 0.70$ ). The validity of the OLBI-A was then examined to determine if the concurrent validity was adequate ( $r > 0.05$ ). Preliminary analyses indicated adequate to good reliability for the OLBI-A as a whole, with the disengagement subscale and the exhaustion subscale having Cronbach Alphas of $\alpha = 0.71$ and $\alpha = 0.76$ , respectively. Additionally, preliminary analyses indicated excellent concurrent validity between the OLBI-A and the QCL with a validity coefficient of $r = -0.27$ , ( $p < 0.01$ ).  Conclusion. The OLBI-A is a reliable and valid measure of academic burnout for college students and will allow academic institutions (e.g., Universities) assess the status of their students. Ultimately, this could lead to the effective management of delivery of resources to manage academic burnout in academic settings and improve student life.	Elizabeth,Curtis		Michael ,Steele	Poster Face-to-Face
Senior Capstone	My presentation will demonstrate my learning and observations from during my service learning capstone with the Family Support Center in Cedar city. This project gives a unique outlook on family services available in a rural university town.	Alexis,Sargent		Matthew,Eddy	Poster Face-to-Face
<b>College of Education &amp; Human Development</b>					

Presentation Title	Presentation Abstract	Primary Full Name	Secondary Presenters	Mentor's Full Name	Presentation Type
Restart that Spark	I have been contacted quite a bit by friends and clients asking how to get their partner to notice them or how to get their attention or my favorite "Christina, help me not to feel so freaking old lady". The fact is this is something I have been asked by people of all ages and in all stages of their relationship. There are a lot of reasons why we may have fallen a little out of sync with our partner. This challenge I created covers many areas and hopefully is as helpful for you with your partner as it has been for those of us who have taken on the Restart that Spark Challenge! We all want that spark and sizzle, lets create it! Join the Restart that Spark Challenge!	Christina,Moton		N/A,N/A	Oral Face-to-Face
Acculturative Stress, Social Media Use, and English Ability among International Students in the U.S.	International students are assets to higher education institutions, and they need support in transitioning to the U.S. and dealing with acculturative stress. Previous research indicates that there is a connection between acculturative stress, social media use, and English ability among international students. However, the findings are still inconsistent. To further examine the relationship among these three factors, an online survey was distributed to international students attending a mid-size university in the U.S. The survey consisted of 30 items including Likert scales and one open-ended question. The results showed that Instagram and Facebook were two most used social media by international students. Social media were used more frequently for social communication than academic purposes. Consistent with previous research, higher level of English ability was related to less acculturative stress. There was a strong, positive association between self-reported reading ability and the use of English social media for social purposes.	Hayley,Pendleton		N/A,N/A	Oral Face-to-Face
Elementary Education Competencies: Aligning Best Practice to Instructional Opportunities	Being a teacher at any level requires a significant amount of knowledge and skill. Paying attention to the core competencies for educators helps to ensure that all teachers and others who work in education are prepared to make school a positive experience for students and their families. Hand in hand with these teacher competencies, Tony will share the current "content" competencies identified by the Utah State Board of Education in their R277-304 and how the Teacher Education department at SUU is working to align these two approaches to prepare our learners to be exceptional K-6 elementary school teachers from their first day of their contract.	Tony,Pellegrini		N/A,N/A	Oral Synchronous Remote
Family Impact Analysis (FIA)	This Family Impact Analysis (FIA) utilizes the family systems theory and academic research from the National Council on Family Relations (NCFR) policy brief regarding Early Childhood Education Policy and its clear link to parent education and Family Life Education. Historically, as proposed by the Obama administration for 2016 funding focuses have been reflective of prioritizing early childhood development programs. Including programs such as Head Start and MIECHV which support low-income families. There has been a significantly inadequate focus on parenting and Family Life Education and accessibility to universal access programs. Parenting practices centering on positive parenting have clear progressive outcomes for parent education and Family Life Education. Parental influence has an astonishing impact on children's development. Parent exposures to key positive parenting practices using evidence-based information promotes children's social, emotional, language and behavior. Universal web-based access to parenting programs using evidence-based information is limited, though such programs have been influential. Education Policy initiatives are most effective when the focus is given to the whole family and constructing positive parenting practices rather than a limited focus on children's academic achievement and school readiness.	tisha,white		Sarah,Allen	Oral Synchronous Remote
Fathers rights in custody		Jara ,Syrett		Sarah ,Allen	Oral Synchronous Remote
	A common trait found among advanced learners is a depth of emotion and sensitivity which may concurrently benefit them and leave them vulnerable to anxiety. As a result, this anxiety, often coupled with perfectionism, is a prevalent issue among the gifted and talented population. Gifted students in general tend to believe that capacity for intelligence is static (Mofield & Parker Peters, 2019); they feel pressure to continually prove their giftedness, and this pressure fuels both anxiety and perfectionism. For gifted individuals, no level of success can alleviate these pervasive and destructive feelings. Though some critics opine that students who are gifted will be able to succeed on their own, in reality these advanced learners have the same need as their classmates to be supported, advocated for, and nurtured. The professional context for my study stems from concern for my own gifted elementary students who suffer from anxiety and/or perfectionism and as a result, fail to achieve at the level of their potential. The theoretical context arises from previous studies which have found mindfulness to be an effective anxiety-management strategy for learners of varying abilities. In my gifted classroom, I observe indications of anxiety-based behavior on a daily basis and in varying degrees among my students. Recently, the far-reaching effects of the worldwide Covid-19 pandemic have exacerbated some of the anxiety-related issues I observed last year in the same group of students. I have considered how I might allay some of my students' anxiety to assist them in reaching their academic and personal potential. As a result of my research, I determined that the concept of incorporating mindfulness practice into the weekly classroom routine held merit.	Dayna,Deppe			Oral Synchronous Remote
How divorce affects children ages 6-12 and the way they develop emotionally, cognitively, and socially	We will be presenting our research project for Maren Hirschi's Divorce and Remarriage class.	Sage,Hopkins	Abbie Corry: Aneidy Hopkins:	Maren,Hirschi	Poster Synchronous Remote
		Easton,Hunt		Clint,Broadbent	Poster Synchronous Remote
Non-Maleficence and the ethical values in the medical community	Our group will be focusing our research on the ethical principle non-maleficence, specifically within the medical field. We will be discussing the cultural impacts on the LGBTQ+ and Latino or Native communities within this workplace.	Haley,Hendricks	Dakota DiGuardi Paige Stokes Tanner Hughes Jenacie Ashlyn Wood	Maren,Hirschi	Poster Synchronous Remote
		Jiovanna,Shipp		Clint,Broadbent	Poster Synchronous Remote
divorce rates in america	poster	alexandra,Holsey		Clint,Broadbent	Poster Synchronous Remote
Excellent	Poster presentation	Nick,Warden		Clint ,Broadbent	Poster Synchronous Remote
Is social media to blame for the increase in depression in teens?	How does social Media play a negative and positive part in young and growing youths.	Hunter,Andersen		Clint,Broadbent	Poster Synchronous Remote
Effects of Parental Divorce on Children's Future Marriages	In this presentation we will be discussing the before, during and after effects of past parental figures divorce in their children's lives. Such things as the likelihood of the children also experiencing their own divorce and entering toxic relationships. We will also be discussing the ways in which we can reduce the likelihood of the chain of divorce continuing.	Maren,Nielsen	Taysha Pedersen , Nancy Dawes , Amrika Miles	Maren,Hirschi	Poster Synchronous Remote
Cultural Competence and Ethics Presentation	We will be presenting on a specific on a specific ethical concept. We will be talking about how it is complicated across two diverse cultures, and the implication for professional practice.	Jordan ,Draper	Mackenzie Morgan, Hailey Dalton, Jentri Esplin, Hannah Downer,	Maren,Hirschi	Poster Synchronous Remote
How Pornography Addiction affects divorce	We are focusing on finding research that shows how pornography addiction can influence relationships and eventually lead to divorce.	Valerie,Friant	Valerie Friant Jaycee Zimmerman Taylor Anderson Alyssa Boyer	Maren,Hirschi	Poster Synchronous Remote
Staying Together for the Kids	In this project, we will analyze the affect on children who live in homes where the parents are together simply "for the good of the children." We will research whether it is better to stay in an unhappy marriage or get a divorce.	Cody,Chidester	Kylee Hansen, Yahaira, Miah Burningham, Aubrey Nellem,	Maren,Hirschi	Poster Synchronous Remote

Child Development: Infancy, 6-12 Months	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	Jessica,Walker	Rylee Gale Tanner Hughes Mindee Stevens	Brionne,Neilson	Poster Synchronous Remote
Social Media having an effect on finding romantic partners	Social Media influences finding love. Social media and pornography ruins love.	Hailey,Robins		Clint,Broadbent	Poster Synchronous Remote
Standardized Tests in Schools	I will be looking at standardized testing in schools. I will be arguing the pros and cons of these types of tests and talking about if standardized tests are actually effective at measuring intelligence and the accuracy of assessing grades for these students.	Emily,Lind		Clint,Broadbent	Poster Synchronous Remote
Is breast or bottle feeding better for newborns?	Show the argument for and against breast and bottle feeding.	Riley,Davis		Clint,Broadbent	Poster Synchronous Remote
Should high school start later in the day?	I will be discussing wether or not high school should begin later in the day or not.	Kate,Summers		Clint ,Broadbent	Poster Synchronous Remote
Are remarried families more likely to have problems than families that are only married once?	I will argue both sides regarding the question, "Are remarried families more likely to have problems than families that are only married once?"	Emilie,Barraza		Clint,Broadbent	Poster Synchronous Remote
Safety of Co-sleeping	Arguing both for and against the safety of co-sleeping between infants and parents.	Isabelle,Cook		Clint,Broadbent	Poster Synchronous Remote
Should high schools start later in the day?	My presentation will look at the pros and cons of starting high school later in the morning.	Ashley,Weston		Clint,Broadbent	Poster Synchronous Remote
Is co-sleeping a safe choice for parents and infants?	I will be presenting about co-sleeping and if it is a safe choice for parents and infants.	Sierra ,Rich		Clint,Broadbent	Poster Synchronous Remote
Can you spoil an infant by giving them too much attention?	I will be presenting both sides of the question, "can you spoil an infant by giving them too much attention?" So I will present research that supports you can spoil an infant by giving them too much attention as well as the research that supports that you cannot spoil an infant by giving them too much attention.	Lexie,Lowry		Clint,Broadbent	Poster Synchronous Remote
Should high schools start later in the day	This presentation is about if high schools should start later in the day. There are many opinions on this topic and lots of evidence to back up both sides. The main argument is if kids should have more sleep or if kids should spend more time later in the day to work on their basic needs and school work. There have been many petitions to be signed on this topic and some schools have already adopted it. There is lots of scientific research that have been done that favor both sides and my goal is to weigh out the pros and cons of both sides of the argument in this project.	Max,Danto		Clint ,Broadbent	Poster Synchronous Remote
Effects of having children on marital satisfaction	This project is intended to explain the pros and cons of married couples having children. This will attempt to show if having children will increase satisfaction in a marriage.	Tylee,Hepworth		Clint ,Broadbent	Poster Synchronous Remote
same sex or traditional parenting	In my presentation I will be going over if same sex or traditional man and woman have better parenting styles. I will look at how they parent and see if that has had an effect of there child success and what they accomplish. Not only that but look at what they did the same or similar and what they did completely differently.I would also like to share what each group of parenting could improve on and something that they did that was very beneficial to the child.	Randi,Allen		Clint ,Broadbent	Poster Synchronous Remote
Standardized Testing and Intelligence	Is Standardized testing the best way to know someone's intelligence? There are many types of intelligence and understanding them will help a child learn easier and learn quicker.	Sarah,Craig		Clint,Broadbent	Poster Synchronous Remote
Professor	Is language development solely the product of conditioning? In my presentation I will discuss how language is learned in babies and if it truly is the product on conditioning. I plan to dive into how the brain is activated during language development and compare and contrast the ideas of language being nature or nurture.	Kenneth,Waldrop		Clint ,Broadbent	Poster Synchronous Remote
Fact or Myth: One and Done	In this presentation I will be showing both sides of the argument of whether or not alcoholism is genetic.	Alyssa,Gatten		Clint,Broadbent	Poster Synchronous Remote
Social Media And The Shift From Traditional Dating	A research project into how Social Media has changed the culture of dating and relationships in Society.	Ty,Gillman		Clint,Broadbent	Poster Synchronous Remote
Can you spoil an infant by giving them too much attention?	I will be sharing why by giving infants too much attention you are indeed spoiling them	Ashlyn,Banks		Clint,Broadbent	Poster Synchronous Remote
High School Start Times- Do They Matter?	My presentation discusses the controversy surrounding high school start times. I explain the advantages and disadvantages to having either an earlier or later start time. Some people say that earlier start times are better for working parents, athletic activities, and afterschool jobs. However, others believe that early high school start times lead to sleep deprivation, decreased academic functioning, and lower attendance. In my project, I examine both sides of the debate and the effects that come with each. Thanks for engaging with my presentation!	Abby,Julian		Clint,Broadbent	Poster Synchronous Remote
Social Media: Confidence Booster or Confidence Crusher?	Social media has become a part of every single person's life and slowly it is starting to influence younger and younger ages. My goal is to help us all understand whether or not that's a good thing and how we can make it better.	Ryan,Craig		Clint,Broadbent	Poster Synchronous Remote
Are Vaccines Safe for Infants?	I will be doing a research project on whether or not vaccines are safe to use on infants. This will be done by comparing the pros and cons of vaccines when used on infants.	Connor,Glad		Clint,Broadbent	Poster Synchronous Remote
Are remarried families more likely to have problems than families that are only married once?	Conducting research on if remarried families are more likely to have issues than the normal nuclear family.	Anna ,Wengreen		Clint,Broadbent	Poster Synchronous Remote
Child Development: Toddlerhood, 18-24 Months	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	Aneidy,Hopkins	Jennifer Hill, Karina Nay, Averie Singleton,	Brionne,Neilson	Poster Synchronous Remote
	How social media causes depression in teens	Madison,Elliott		Clint ,Broadbent	Poster Synchronous Remote
		Skylynn,Nicholls		Clint ,Broadbent	Poster Synchronous Remote
Are men and women born into immutable gender roles?		Jayden,Pierce		Clint,Broadbent	Poster Synchronous Remote
		Kamberlee,Anderson		Clint ,Broadbent	Poster Synchronous Remote
Home Birth vs Hospital Birth	A research project based on an analysis of data and information regarding women's' experience with birth. Compares the pros/cons of both home births and hospital births.	Sydney,Torgersen		Clint,Broadbent	Poster Synchronous Remote
The Hereditary Effects of Alcoholism and Drug Abuse	In my independent project, I will be studying and researching the hereditary effects of drug abuse and alcoholism. I was very curious about this topic, because in my own opinion, I believe this topic is very pertinent to college students. If students know how alcohol and drugs affect them and their future offspring in the future, then students will most likely not drink as much as they do.	Nathalie ,Lagamayo		Clint,Broadbent	Poster Synchronous Remote
can educational games on electronics benefit infants cognitive development?	I am researching to see if online games play an impact on infants cognitive development. Whether it's a positive influence or a negative one on cognitive development. I am curious to see if playing games has other impacts rather just than the cognitive development as well.	Jessica ,Cox		Clint,Broadbent	Poster Synchronous Remote
The advantage of cohabitation in many ways.	Nowadays, many friends, couples, even strangers choose to cohabitate because of many reasons. I think cohabitation can bring benefits to people in many ways. I want to do some research and talk about it.	Chenxuan,Li		Clint,Broadbent	Poster Synchronous Remote

Dips in the Economy and their Effect on Child Obesity Rates	My project is going to be investigating how dips in the economy of the United States effects the rates of obesity in children as a whole. There will also be solutions for the issue of raised obesity rates during low economic times.	Peyton ,Brown		Clint ,Broadbent	Poster Synchronous Remote
Is divorce the highest its ever been?	Explaining if divorce rates are going up or if they are decreasing.	Averie,Staheli		Clint,Broadbent	Poster Synchronous Remote
Are today's parents too permissive?	I have decided to take a deep look into the differential types of parenting in today's day and age. From previous perspectives, some may say that parents have become too casual and lenient, others think the opposite. I am excited to present the research, evidence, and claims that people have made on such a controversial topic that every parent can differ in: different ways and techniques to raise successful children and what is the most effective and productive way to do so.	Elle,Kucifer		Clint,Broadbent	Poster Synchronous Remote
Is there a difference between children with same sex parents and traditional male/female parents?	I will be comparing and contrasting the pros and cons of children who grew up with parents of the same sex with children who grew up with a traditional male/female parents. Both children have the possibility to become very successful in their future, however, the way that they are successful might potentially be different with different types of parents.	Kortney,Knutson		Clint,Broadbent	Poster Synchronous Remote
Social Media and Depression	This presentation will address social media and depression. I aim to show if social media is a large contributor in depression today and to also find out what other factors come into play. I would also like to address the positives in social media, as I'm sure there are cases where social media has actually helped people. The main goal of the presentation will be to fairly assess the pros and cons of social media and also to address the many factors which play into depression. This information can then be used by viewers to decided what they think.	Tressa,Carter		Clint,Broadbent	Poster Synchronous Remote
Let's Talk About Home VS Hospital Birth	For my presentation, I will be talking about the pros and cons of both home and hospital birth. I want to focus on research, and less on my personal opinions. I want to include interviews with mothers that have experienced both of these scenarios. I will include the effects it has on the mother, including things like her comfort, anxiety levels, and success rate. I will also follow up with the short and long term effects they may have on the child. Home births are becoming more popular and I would like to explain why. I will talk about other factors like midwives or medicine that helps the birthing process.	Megan,Martineau		Clint,Broadbent	Poster Synchronous Remote
	Is a home birth a better experience than a hospital birth? I will be arguing both sides for and against.	Savannah,Johnson		Clint,Broadbent	Poster Synchronous Remote
Is a home birth a better experience than a hospital birth?	My presentation will be on the pro's and con's of both Hospital Birth and Home Birth experiences. Also to decide if a home birth experience is really better than a hospital birth experience or what the conditions would need to be for it to be so.	Verna,Jessop		Clint,Broadbent	Poster Synchronous Remote
Is social media to blame for the increase in depression in teens?	I want to demonstrate how and why social media is to blame for an increase in depression in teens. I believe that this is a prevalent issue that needs to be looked at thoroughly. I hope to accurately depict both sides of this topic. I also hope to discussed possible solutions to this problem.	Matthew,Pullan		Clint,Broadbent	Poster Synchronous Remote
Does Cohabitation lead to better relationships/marriages?	Cohabitation is a proposed idea to help couples who are wanting to progress their relationship further. It is said to help the couple gain an idea of what marriage to their significant other would be like without going through many of the costs of marriage brings. This is often done to help couples prevent marriages that should not happen or help them transition into a stage to help them prepare for marriage. This research project is going to look at the benefits and disadvantages cohabitation can bring, how it effects the couple, and if it proves to be a successful step in helping the cohabitants find happiness in their relationship/marriage. It will review the studies of peer reviewed articles including inferences from the author, the results of surveys and experiments performed. The goal of this research project is to help readers formulate opinions, and develop their own theories on cohabitation.	Wesley,Harrison		Clint,Broadbent	Poster Synchronous Remote
The Effectiveness of Abstinence Only Sex Education	I will be describing the pros and cons of abstinence only sex education and all-inclusive sex education programs. I will also be discussing whether schools should consider switching to all-inclusive programs or continue teaching abstinence only.	Christopher,White		Clint,Broadbent	Poster Synchronous Remote
Can you find love on Social Media.	A project and study on in you can find love using social media.	Bladen ,Forsyth		Clint ,Broadbent	Poster Synchronous Remote
Is divorce the highest its ever been?	I am going to find out the divorce rates and see if they are continually going up or going down. I want to find out what is causing it and if it is continually going up.	Jarret ,Fairhurst		Clint ,Broadbent	Poster Synchronous Remote
Child Development: Early Childhood, 5 years old	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	Emma,Penovich	Jenessa Clark Justin Coombs Erika Hill	Brienne,Neilson	Poster Synchronous Remote
Breast Feeding vs Bottle Feeding	For my presentation, I will be arguing the positives of breast feeding a newborn and also the positives for bottle feeding a newborn.	Tylei ,Jensen		Clint,Broadbent	Poster Synchronous Remote
Is divorce becoming more common?	Independent project	Autumn,Maxwell		Clint,Broadbent	Poster Synchronous Remote
Breastfeeding vs. Bottle Feeding	I will be exploring the advantages and disadvantages of both bottle-feeding an infant, as well as breastfeeding.	Jordyn,Steely		Clint,Broadbent	Poster Synchronous Remote
Abstinence- only, the right way?	I will be explaining both why abstinence-only is the best thing to teach for sex education and why abstinence-only is not the way to go about teaching sex education.	Tiffany,Crump		Clint,Broadbent	Poster Synchronous Remote
Is Social Media an Effective Tool for Finding Romantic Partners?	Social media is an integral means of communication in our modern times. It also proves as a means to meet new people and can sometimes lead to meeting new romantic partners. This presentation will examine the effectiveness of social media in terms of finding romantic partners.	Brianna,Coon		Clint,Broadbent	Poster Synchronous Remote
Does having children lead to greater marital satisfaction?	I will be discussing how having children in a relationship will or will not bring greater love and satisfaction between partners.	Kaitlyn,Dickey		Clint,Broadbent	Poster Synchronous Remote
The Pros and Cons of Breast Feeding and Bottle Feeding for Newborns	This presentation will look into the differences of breast feeding and bottle feeding for newborns. It will discuss both the good things, and the bad things for both methods, and give examples of when one method might be better than the other.	Kenna,McKay		Clint ,Broadbent	Poster Synchronous Remote
Is alcohol and drug abuse hereditary?		Anna,Pendery		Clint ,Broadbent	Poster Synchronous Remote
are vaccines safe for infants	If vaccinations are safe for infants to take	Sabrina,Rosales		Clint,Broadbent	Poster Synchronous Remote
social media causing depression in teens	Is social media to blame for the increase in depression in teens?	Sabrina,Rosales		Clint,Broadbent	Poster Synchronous Remote
Child Development: Early Childhood, 3 year old's	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	McKenzie,Dowell	Eve Burgess, Rachel Evans, Stephanie Weller,	Brienne,Neilson	Poster Synchronous Remote
Is co-sleeping a safe choice for parents and infants?	For this class project I will be diving into the topic of co-sleeping and whether it is a safe choice for parents and their infants. I will be arguing both for and against co-sleeping and will explain the pros and cons of both sides.	McKenzie,Dowell		Clint,Broadbent	Poster Synchronous Remote
FLHD 3200 Child development Infancy through twelve	Padlet: Toddlerhood 12-18 months	Saige ,Cox	Saige Cox, Mackenzie Morgan, Sage Hopkins, Yahaira Gaytan, Alaina Karlsberger,	Brienne ,Neilson	Poster Synchronous Remote
Does spanking have a negative effect on children?	I will be presenting/arguing both sides of the argument on spanking children and if it has a negative effect on their development or thought process.	Nate,Monroe		Clint,Broadbent	Poster Synchronous Remote

Mommy Care or Daycare	Does placing a child under three years old have a psychological effect on them? Do children who are in only the care of mom or dad for the first three years have a better or worse success rate? Do children who go to daycare in their early years perform better in school compared to those who do not? Throughout my project I will research and present my findings. I will argue for and against placing child into daycare in their early infant, childhood years. I will find if there is any scientific evidence to suggest one is better than the other, and why.	Jamie ,Pollock		Clint,Broadbent	Poster Synchronous Remote
Does standardized testing work?	Is standardized testing a good way to show how well kids are doing in schools?	Maggie,Stringham		Clint,Broadbent	Poster Synchronous Remote
How We're Raising the Next Generation	I will be exploring whether or not parents are too permissive with their children, and what the effects of permissive parenting may have on the future of these children.	Charadee,Williams		Clint,Broadbent	Poster Synchronous Remote
Is a home birth a better experience than a hospital birth?	I will be presenting an argument regarding at home births vs hospital births	Madelyn,Ottley		Clint ,Broadbent	Poster Synchronous Remote
Children and your Marital Satisfaction	This presentation will look at how children impact the marital satisfaction of couples.	Tiffany,Wayman		Clint,Broadbent	Poster Synchronous Remote
Is social media to blame for the increase in depression in teens?		Amelia,Tuiasosopo		Clint,Broadbent	Poster Synchronous Remote
Breast Milk vs. Bottle Milk	Pros and cons of Breast Milk. Pros and cons of Bottle Milk/formula.	Shay,Culler		Clint,Broadbent	Poster Synchronous Remote
Standardized Measures of Intelligence	Is standardized testing the best way to know someone's intelligence? Intelligence has been defined in many ways: higher level abilities (such as abstract reasoning, mental representation, problem solving, and decision making), the ability to learn, emotional knowledge, creativity, and adaptation to meet the demands of the environment effectively. When a community determines what qualities are considered "intelligent" and proceeds to formulate tests to measure how each member compares to the others, the results affect the participants just as much as the participants create the results. There is no such thing as an unbiased test for something as abstract as intelligence, but that does not mean tests or standards of measure should not be formulated in the first place.	Elizabeth,Dayton		Clint,Broadbent	Poster Synchronous Remote
Children learning disabilities	Children with learning disabilities should be mainstreamed instead of not be hidden from the public. The disabilities like to be hidden from the public but in 2021 we should let children with disabilities be normalized instead of scared of it.	Casey,Poor		Clint,Broadbent	Poster Synchronous Remote
		Kira,Rackley		Clint,Broadbent	Poster Synchronous Remote
Does spanking have a negative effect on children?	Spanking has been a common form of punishment for years and years. This project will argue both the positive and negative effects of spanking as well as why we should and should not spank our children.	Zack,Nash		Clint,Broadbent	Poster Synchronous Remote
Education and human development		Averie ,Singleton		Clint ,Broadbent	Poster Synchronous Remote
Child Development: Early Childhood, 4 Years Old	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	Jen ,Johnson	Kayla Boynton Marley Fakahua Shauni Nason	Brienne,Neilson	Poster Synchronous Remote
		Kylie,Oldroyd		Clint,Broadbent	Poster Synchronous Remote
Child Development: Infancy, 0-6 Months	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	Eden,Halverson	Mia Correa, Kaitlyn York, Jordyn Steely,	Brienne,Neilson	Poster Synchronous Remote
Is standardized testing the best way to know someone's intelligence?	We've all stressed over tests throughout our lives, from elementary school, to get into a university, and to determine our grades in college. Standardized testing is commonly used throughout the world as a means of measuring a person's knowledge. However, it is also widely disputed as to whether or not this form of testing has any validity concerning the intelligence of an individual. It has been argued that standardized testing cannot effectively measure the knowledge of a person because it may only measure an individual's ability to perform on a test but in reality does not reflect how intelligent they are. Others claim that standardized testing is a perfect way to discern intelligence because if a person studies well enough they will be able to perform; thus reflecting their knowledge. This issue is important to our society because thousands of organizations use tests to determine the how intelligent a person is. Should standardized testing be a key factor in determining an individual's knowledge, or should testing be substituted for something better?	Gordon,Hermansen		Clint,Broadbent	Poster Synchronous Remote
Breast Feeding vs Bottle Feeding for Newborns	My purpose was to compare whether breast feeding or bottle feeding newborns was for the infant. Breast feeding is cheaper and often more easily accessible. Bottle feeding however is packed with lots of nutritious benefits for when the mother is unable to breast feed or the infant has allergies. My presentation goes into depth about the pros and cons for each and will determine which is the most beneficial for the newborn.	Brooklyn,Clayton		Clint,Broadbent	Poster Synchronous Remote
Does spanking have a negative effect on children?	A look into the effects of spanking on children as they are growing.	Spencer,Luque		Clint ,Broadbent	Poster Synchronous Remote
Long Term Relationships And Cohabitation	In this research project I will be delving into statistics and research that have been focused in on the effects cohabitation or the absence thereof between partners has on couples' overall relationships and marriages. I will look at whether it is beneficial emotionally, mentally, and physically on couples to live together and practice sexual relations before marriage or if it makes any differences between a couple to abstain from living together and having sexual relations until under wedlock. I aim to examine the pros and cons and present a case for both sides based on research that has previously been gathered, to determine what strengths or weaknesses may lie within choosing cohabitation in a relationship versus waiting for marriage.	Scot,Carrington		Clint,Broadbent	Poster Synchronous Remote
Vaccinations for infants.	There are infants being bored everyday and it's important to think about if you want your child to benefit from vaccinations or not. There are many pros for the vaccines and some disadvantages and I want to be able to discuss both sides. I want to help those who are unsure what to do will be able to have the information to make what they feel the right choose.	Caitlin,Washington		Clent ,Broadbent	Poster Synchronous Remote
Does cohabitation lead to better relationships/marriages?	This research will discover if there are any trends or contrasting data when it comes to marriages and relationships where the two partners live together vs. living apart.	Jace ,OKERLUND		Clint ,Broadbent	Poster Synchronous Remote
Is standardized testing the best way to know someone's intelligence?		Kaitlin,Clark		Clint,Broadbent	Poster Synchronous Remote
Does having children lead to greater marital satisfaction?	This article, based on scholarly articles and data research, dives deep into both sides of the argument on whether parenthood leads to greater marital satisfaction. After taking personal surveys of college students and finding algorithmic based research, both sides can be argued sufficiently. More surface research presents stronger arguments towards the idea that having children does not lead to greater marital satisfaction, but observing deeper and more thorough research presents overall satisfaction in the marriage after time and working on other underlying factors. Research suggests that if a couple doesn't have marital satisfaction before children, having children will never bring the satisfaction the couple is looking for. Only when there is consistent work between the couple does the children really lead to marital satisfaction.	Lindsey,Stephenson		Clint,Broadbent	Poster Synchronous Remote
Is a home birth experience better than a hospital birth?	Why do most people do hospital birth? Is it really a better experience? For the mom and the baby? In this presentation I will address the risks of both a home birth and hospital birth. I will share the pros and cons of each. You'll see the recovery benefits too.	Camri,Burrell		Clint,Broadbent	Poster Synchronous Remote
Does spanking have a negative effect on children?	Does spanking have a negative effect on children? It is very popular topic when people are talking about how to educate their children. Spanking is effective way to educate children and usually it has positive effect on children from my experience but overspanking could make the kid being abnormal aggressive which is definitely not good for children's development. Also the ways people educate their children are totally different from country to country, so it is also a cultural difference. As a Asian, I want talking about spanking has a positive effect on children.	Ziyao ,Zhou		Clint,Broadbent	Poster Synchronous Remote
		Roxy,Pinson		Clint,Broadbent	Poster Synchronous Remote

Is Divorce Hereditary?	Some families have no divorced couples, while some families have many. Does divorce "run in the family"? What kind of aspects of ourselves can we look at to see if we have an inclination for divorce?	Alaina,Smith		Clint,Broadbent	Poster Synchronous Remote
Can you spoil an infant by giving them too much attention?	This will be a presentation that speaks about infants and the affects of giving them attention and if too much attention is spoiling them.	Emma,Stubbs		Clint,Broadbent	Poster Synchronous Remote
Is standardized testing the best way to know someone's intelligence?	I will be arguing both for and against if standardized testing is the best way to test somebody's intelligence	Rylee,Bess		Clint,Broadbent	Poster Synchronous Remote
Should parents at-risk as carriers of abnormal genes be subject to mandatory genetic testing?	The discussion of what abnormal genes are, understanding if you could be a potential carrier of a gene, different ways to test genetics, what to do when you know you have a genetic disorder, and then the pros and the cons of getting tested for genes or not getting tested.	McKenzie,Wixom		Clint,Broadbent	Poster Synchronous Remote
Should There Be a Mandatory Age of Retirement	I will be arguing for and against a mandatory age of retirement.	Taylor,Simons		Clint,Broadbent	Poster Synchronous Remote
Should high schools start later in the day?	I will be talking about the pros and cons about if high schools in the US started classes later in the day. I'll be researching both sides to the situation and coming up with overall evidence to help people see maybe why schools do start early or why they might start later.	Marian,Wintercorn		Clint,Broadbent	Poster Synchronous Remote
Does cohabitation lead to better relationships/marriages?	Despite the commonly negative stigma of premarital cohabitation, research has shown that it is actually beneficial for marriages for multiple reasons--it allows couples to know how they function while living together before making that big step, financial benefits, etc. However, there is also research that supports the premise that couples who live together before marriage have a higher risk of divorce, and lower satisfaction rates. In this presentation, I will provide multiple sources and compare and contrast their research findings.	Grace,Collier		Clint,Broadbent	Poster Synchronous Remote
The Comparison of Children Raised by Same-Sex vs. Traditional Couples	There are many questions regarding the success and well-being of children raised by same-sex parents compared to those raised by a traditional, male-female couple. There are positive and negative consequences on each side. Overall, the gender of the parents is not the deciding factor of how the children turn out, but instead it is the function of the home and how they are raised.	Savannah,Ames		Clint,Broadbent	Poster Synchronous Remote
Should children with learning disabilities be mainstreamed?	In my presentation I will include the pros and cons of having children with learning disabilities be mainstreamed. I will also include options available for each scenario.	Kaelynn,Baker		Clint,Broadbent	Poster Synchronous Remote
Are remarried families more likely to have problems than families that are only married once?	This presentation is going to be on the differences of family life between remarried families and families who only marry once. I specifically want to research and focus on what divorce and remarriage does to the children in the home vs original parents staying together.	melodie,balazs		Clint,Broadbent	Poster Synchronous Remote
Disabilities and Mainstreaming	This presentation will cover the consequences of children with learning disabilities in a mainstreamed environment. The points that will be emphasized include education, health and culture. Mainstreaming children with disabilities has lead to an increase of acceptance among peers and is known to increase the performance of the child with disabilities. It also, however, requires more attention from teachers and caregivers, demands high funding, and negative social interaction. While this topic poses the position of for and against, the benefits of children with learning disabilities being mainstreamed strongly outweigh the opposing.	Cassidy,Chamberlain		Clint,Broadbent	Poster Synchronous Remote
The Permissiveness of Today's Parents	I will be making a presentation on the topic of the parents of the current generation and how permissive they are. I will also be analyzing the effects of this and how teenagers and adolescents behave today because of their parents' authoritative styles, as well as look at the reasons the parents have chosen this parenting style in the first place because of their own background. Although I am going to be arguing both for and against whether parents are too permissive, I will end up agreeing with the one side that reveals the strongest reasons why they are or not.	Nicole ,Lathrop		Clint,Broadbent	Poster Synchronous Remote
Does spanking have a negative effect on children?	I will be talking about the positive and/or negative effects spanking has on children.	Tiffany,Fielding		Clint,Broadbent	Poster Synchronous Remote
Mind in the Making: Making Connections	Our group is presenting our Mind in the Making presentation!	Matalyn ,Bunn	Grace Nowatske	Brienne ,Neilson	Poster Synchronous Remote
Should parents at-risk as carriers of abnormal genes be subjected to mandatory genetic testing?	As someone who has a genetic disease I feel it a very important topic to discuss since there was not a lot of information on it when I was born. When I was born I was a happy and healthy little girl with no signs that something may be wrong. Later after my mom stopped breastfeeding me I began to struggle with absorption issues that were not noticeable from my outward appearance. It was later discovered after having a seizure that something may be wrong with me. Soon after being diagnosed with Cystic Fibrosis there was discussion about future children and what they should do now that both my parents are aware that they are carriers of this gene. I want to look at the benefits of knowing and not knowing you are a carrier of an abnormal gene.	Callie,London		Clint,Broadbent	Poster Synchronous Remote
Child Development: Middle Childhood, 9-12 Years	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development	Brianna,Milne	Madi Frstrup, Cynthia Yabo, Emily Schut,	Brienne,Neilson	Poster Synchronous Remote
Is there a difference between children of same sex couples and traditional male/female parents?	There is still a lot of controversy on whether or not there are differences between children of same sex couples and children from traditional couples. In the presentation, I will describe what both of these relationships look like. I will show the positive and negative aspects of both couples with no bias. I will then conclude the presentation and show which parents are better suited at raising children.	Jeb,Robinson		Clint,Broadbent	Poster Synchronous Remote
The disadvantages of cohabitation.	Cohabitation can affect relationships and lead to many misunderstandings. Be sure to have your own personal space. Do not rely too much on each other.	Tongshuo,Lin		Clint,Broadbent	Poster Synchronous Remote
Does cohabitation lead to better relationships/marriage?		Sage,Dean		Clint ,Broadbent	Poster Synchronous Remote
Is social media an effective tool for finding romantic partners?		Savannah,Grant		Clint,Broadbent	Poster Synchronous Remote
Parents and Infants Co-Sleeping	In my presentation, we will talk about if co-sleeping is a safe choice for parents and infants. Co-sleeping is the practice in which babies/young children sleep in the same bed as their parents, as opposed to in a separate bed/room. I will discuss the pros and cons of co-sleeping and state whether or no co-sleeping is a safe option.	shylen,murakami		Clint,Broadbent	Poster Synchronous Remote
Are Vaccines safe for infants?	A poster giving some of the quick facts about a well debated topic "Are vaccines safe for infants?".	Nathan,Shafer		Clint,Broadbent	Poster Synchronous Remote
Is divorce the highest it's ever been?	Is divorce sadly the highest it's ever been? Well my poster has all the answers and facts on why it might be and why it would be that way.	Kylee,Bartholomew		Clint,Broadbent	Poster Synchronous Remote
Does having children lead to greater marital satisfaction?	Marriages that have children and whether they are for or against having children. Comparing couples with and without children, and discussing the research behind the relationship satisfaction for each side.	Khari ,Nielsen		Clint ,Broadbent	Poster Synchronous Remote
Is breast or bottle feeding better for newborns	I am going to research both the positives and the negatives for bottle feeding and breast feeding a newborn. There is a lot of controversial around this topic and there are many factors that can play into both of these options. People have worked hard to find the benefits and challenges of each. In the research that has been conducted, newborns and measured in length, height, and weight. They then have some babies breast feed while the other is bottle fed. After a certain amount of time, they remeasure the babies and compare the growth in each group. What are the results? In certain situations, it is circumstantial. After the experiment, the benefits are clear. As I gather more information, we will find out which is better for newborn babies to drink.	Mercedes,Broadwell		Clint,Broadbent	Poster Synchronous Remote
Is home or hospital safer for birth	This project will compare and contrast the benefits of giving birth at home versus giving birth in a hospital.	Meredith,Draper		Clint,Broadbent	Poster Synchronous Remote
Is a home birth a better experience than a hospital birth?	The title of my presentation is "Is a home birth a better experience than a hospital birth?" I will be arguing both for and against home birth and hospital birth using research that I have found in academic articles, and I will reach a conclusion of which birthing option is a better experience.	Cassadie,Gunter		Clint,Broadbent	Poster Synchronous Remote
Is attending childcare during the first three years of life psychologically damaging to children?	I will be arguing for both sides of the argument of whether or not putting a child into childcare at a young age is psychologically damaging.	Alayna,Gately		Clint,Broadbent	Poster Synchronous Remote

Are vaccines safe for infants?		manny,berz		Clint,Broadbent	Poster Synchronous Remote
Are vaccines safe for infants?	Many claims have been made about the affects that vaccines have on infants. Are these claims correct? If so, then why is healthcare still administering them and pushing parents to vaccinate their children?	Morgan,Barker		Clint,Broadbent	Poster Synchronous Remote
Sex Education	The presentation will discuss the pros and cons of teaching students only to be abstinence in a sex education class. It will also discuss what pros and cons can come from teaching students about sex. Some of the pros consists of students not participating in sex, and students when they do participate in sex they will know how to be safe. The cons consist of students not knowing how to have safe sex, and students wanting to have sex now that they know how. In conclusion the pros and cons will be discussed to see what is best fitting for sex education classes.	Ashley ,Shewmake		Clint,Broadbent	Poster Synchronous Remote
Does Spanking Have a Negative Effect on Children?	For this project I will be discussing the effects, both positive and negative, spanking has on children and adolescents. I will discuss both sides of the argument by understanding how spanking negatively affects children and how spanking positively affects children. Other ideas that may come into picture while I am giving this presentation is other forms of punishment, parenting styles, and how spanking effects children in all aspects of their life. To conclude, I will share my opinion on spanking and go over the main points again before ending.	Denise,Anderson		Clint,Broadbent	Poster Synchronous Remote
Mind in the Making 6: Taking on Challenges	This presentation is part of a class project for FLHD 3610 (Play & Advanced Child Guidance). Based on Ellen Galinsky's work, we will highlight one of the essential life skills for children. The presentation will introduce the skill and provide background information, share specific activities that can be done with children to foster the skill, introduce a variety of supporting children's books, and provide additional resources related to this specific skill. The format is intended to be useful for current parents, future parents, and any professionals who may work with children and families.	Jennifer ,Steel	Kiersten Atwood, Madi hall,	Brionne ,Neilson	Poster Synchronous Remote
	Difference between breastmilk and formula	Caleb,Arkoudas		Clint,Broadbent	Poster Synchronous Remote
		Kayleigh ,Shami		Clint,Broadbent	Poster Synchronous Remote
Mind in the Making: Critical Thinking	This presentation is part of a class project for FLHD 3610 (Play & Advanced Child Guidance). Based on Ellen Galinsky's work, we will highlight one of the essential life skills for children. The presentation will introduce the skill and provide background information, share specific activities that can be done with children to foster the skill, introduce a variety of supporting children's books, and provide additional resources related to this specific skill. The format is intended to be useful for current parents, future parents, and any professionals who may work with children and families.	Ally,Mendenhall	Samara Rangel , Ally Mendenhall , Eden Adams	Brionne,Neilson	Poster Synchronous Remote
Are today's parents too permissive?	In my presentation I will be talking about permissive parents. In today's day, have parents become too permissive? Also I will be hitting a few positive points and a few negative points on permissive parenting.	Kyle,Perkins		Clint,Broadbent	Poster Synchronous Remote
		Casia,brinkerhoff		Clint,Broadbent	Poster Synchronous Remote
Sex Education with Adolescents	In this presentation it will include why sex education is important for adolescents. There are several pros when it comes to teaching adolescents about sex as well as many cons. Some argue that an absence focused curriculum for sex education fails to provide important information to adolescents about safe sex practices. Others argue that including information in a sex ed curriculum about birth control and STD's causes adolescents to engage in sexual activity in a younger age.	Olivia ,Hunt		Clint,Broadbent	Poster Synchronous Remote
Can you spoil an infant by giving them too much attention?	The topic I chose is whether or not you can give an infant too much attention. I will be explaining why people believe you can and how science proves you cannot. Infants are entirely dependent on their caregivers and need time and attention to develop. Attachment styles and early learning depends on adults spending time with their young children.	Kelsie,Cook		Clint,Broadbent	Poster Synchronous Remote
		Easton,Syrett		Clint,Broadbent	Poster Synchronous Remote
same sex, different sex, and the child	What is the difference, if any, in that of a child being raised by a same sex couple vs that of a child being raised by the traditional male/female couple.	Rose-Angel,Ramirez		Clint,Broadbent	Poster Synchronous Remote
Are men and women born into immutable gender roles?		Sydney,Craft		Clint,Broadbent	Poster Synchronous Remote
Mind in the Making, Communicating	This presentation is part of a class project for FLHD 3610 (Play & Advanced Child Guidance). Based on Ellen Galinsky's work, we will highlight one of the essential life skills for children. The presentation will introduce the skill and provide background information, share specific activities that can be done with children to foster the skill, introduce a variety of supporting children's books, and provide additional resources related to this specific skill. The format is intended to be useful for current parents, future parents, and any professionals who may work with children and families.	Brynlee,Bybee	Heidy Alvarez, Megan Weidman, Dakota Diguardi,	Brionne,Neilson	Poster Synchronous Remote
Can educational games on electronic devices benefit infants in their cognitive development	My presentation will be on both the positives and negatives of educational games in regards to infants in their cognitive development in hopes of understanding if it is overall helpful or harmful. I appreciate the opportunity to share the ups and downs of such a controversial and prevalent topic!	Hailey,Ensign		Clint,Broadbent	Poster Synchronous Remote
The Importance of Trauma Informed Care	Researchers are becoming more aware of the long lasting effects of trauma, especially in terms of Adverse Childhood Experiences. Injuries from trauma, especially trauma occurring before a child's brain has fully developed, not only effects the child's trajectory but their family unit, future relationships, and posterity. It is critical that education and resources become available not only to the child but adults who come in contact with that child. Understanding trauma responses and being able to offer tools and resources, rather than dismissing the behavior as being a disciplinary issue, can be critical in that child's development.	Mari,Hobson		Sarah,Allen	Poster Synchronous Remote
Does having children lead to greater marital satisfaction?	My project will go over the question on "does having kids lead to greater marital satisfaction?". I will go over the argument and provide evidence for/against this idea. But I do believe that having kids can lead to greater marital satisfaction.	Brady ,Fox		Clint,Broadbent	Poster Synchronous Remote
Does having children lead to greater marital satisfaction?	Deciding to have children is a huge decision to make. Having children can bring lots of joy, but can also bring plenty of stress. The challenges that come with a child can greatly affect a marital relationship. So, overall does having children lead to greater marital satisfaction? Over time, parents experience plenty of highs and lows, and this research is aiming to determine if having children makes a significant increase or decrease in marital satisfaction.	Camryn,Oldham		Clint,Broadbent	Poster Synchronous Remote
Ethical Justice between the Social Work and Legal System		Rylie,Devey	Kaitlyn York Eve Burgess Mindee Stevens Brianna Wright Madi Frstrup Rylie Devey	Maren,Hirschi	Poster Synchronous Remote
Are home births better?	I will be discussing the pros and cons of an at home birth experience. On top of this, I will discuss why this experience can be considered better than a hospital birth as well as why one might choose a hospital birth over an at home experience.	Macie,Ostmann		Clint,Broadbent	Poster Synchronous Remote
Is Alcoholism and Drug Abuse Hereditary?	This presentation will discuss if alcoholism and drug abuse is hereditary or not. A conclusion will be stated at end of presentation.	Trevor,Robinson		Clint ,Broadbent	Poster Synchronous Remote
Is adoption a risky decision	A look into how adoption compares to biological parenthood and the positives and negatives of each	Michael,Doty		Clint,Broadbent	Poster Synchronous Remote
Is social media an effective tool for finding romantic partners?	I will be researching the effectiveness of social media when finding a romantic partner. I am also interested in learning about the successes (relationships, marriage, etc.) vs. the failures (breakups, dates falling through, etc.). Social media is a tool in meeting new people with the younger generations, especially right now during a global pandemic when in-person social interaction is very limited. I am also very interested to learn if the amount of success stories with social media relationships has gone up in the past year because of the pandemic.	Brooklyn,Beus		Clint,Broadbent	Poster Synchronous Remote



Mind in the Making: Self-Directed Engaged Learning	This presentation is part of a class project for FLHD 3610 (Play & Advanced Child Guidance). Based on Ellen Galinsky's work, we will highlight one of the essential life skills for children. The presentation will introduce the skill and provide background information, share specific activities that can be done with children to foster the skill, introduce a variety of supporting children's books, and provide additional resources related to this specific skill. The format is intended to be useful for current parents, future parents, and any professionals who may work with children and families.	Elizabeth,Peterson	Annika Hedman, Meagan Wagstaff,	Brionne,Neilson	Poster Synchronous Remote
Mind in the Making [Perspective Taking]	This presentation is part of a class project for FLHD 3610 (Play & Advanced Child Guidance). Based on Ellen Galinsky's work, we will highlight one of the essential life skills for children. The presentation will introduce the skill and provide background information, share specific activities that can be done with children to foster the skill, introduce a variety of supporting children's books, and provide additional resources related to this specific skill. The format is intended to be useful for current parents, future parents, and any professionals who may work with children and families.	Rebecca,Saunders	Makaisha Gillins Amanda Wilcox Lydia Huppi Rebecca Saunders	Brionne,Neilson	Poster Synchronous Remote
Is Standardized Testing The Best Way To Know Someone's Intelligence?	I will be presenting on different ways to test someone's intelligence vs the current model of standardized testing. Humans are all very different, it would be foolish to think that standardized testing is the best way to test someone's intelligence. Standardized testing may be the most convenient but perhaps not the BEST way to gauge a person's intelligence. I am curious to see what my research findings are and what those who will hear it will think of my findings.	Curtis ,Rowley		Clint ,Broadbent	Poster Synchronous Remote
Are Divorce rates the highest they have ever been now	For my presentation I will be looking into if the divorce rates are the highest they have ever been. I want to look into why they have either risen or fallen from previous years.	Sydney,Forbes		Clint ,Broadbent	Poster Synchronous Remote
Can educational games on electronic devices benefit infants in their cognitive development?	The goal of my presentation will be to research and then explain how educational games presented on electronic devices can both benefit an infants cognitive development, and also which issues can arise from using this medium.	Marla,Camarena		Clint,Broadbent	Poster Synchronous Remote
Is abstinence-only sex education an effective approach with adolescents	Will be discussing the pros and cons to each side of the argument in order to give my opinion.	Kamberlee,Anderson		Clint,Broadbent	Poster Synchronous Remote
TANF and the Education Gap: Women and Post-Welfare Work Success	This presentation will look at TANF through the Family Impact Lens to understand how single mothers are effected by work program requirements. I will delve further into how allowances for supported education programs will more effectively help single mothers rise out of poverty instead of merely graduating them from the TANF program.	Emily,Wiegman		Sarah,Allen	Poster Synchronous Remote
research project	In modern times parents are extra protective of their children. Especially with the ability to research it so easily. I will be diving into if it is possible to spoil children in the infant stages of their life by giving them too much attention	Emilio,Noriega		Clint ,Broadhenth	Poster Synchronous Remote
The Impact of the National School Lunch Program on Low Income Families	This research paper utilizes Ecological Theory, Family Impact Analysis, and scholarly data from the research on nutrition to determine the effectiveness of the National School Lunch Program on low socioeconomic families.The goals of this policy is to provide children from low socioeconomic families free or reduced lunch options in schools. There are about 29.4 million children that are affected by this program. Specific attention will be given to the intended and unintended effects of how the National School Lunch Program impacts families of low SES. The historical context of the National School Lunch Program will be examined, as well as current family trends and shifting values between the concerned and impatient camps. It will be argued that although the policy provides children from low SES reduced or free lunch, it lacks strong nutritional foundations and recommendations to implement better nutrition standards are present.	Shawnee,Payne		Sarah,Allen	Poster Synchronous Remote
	FLHD Presentation regarding the increase in teen mental illness due to social media.	Kiaora,Fernelius		Clint , Broadbent	Poster Synchronous Remote
Life with and without a twin	This presentation will be comparing the lives and the effects of being a twin versus not having one. To ensure the academic purpose of this project, I will be providing accurate statistics and data on topics like education, mental health, and overall social impacts of being a twin versus not. I will be listing out the pros and cons between these two lifestyles to help get an idea of both sides. This project will be mostly based on data, while as I am a twin, I will bring a little insight of how it has affected me. I will also go into detail about the differences in life effects of being dizygotic and monozygotic twins. This is the difference of being identical or fraternal. I think its important to talk about this subject also because people believe that all twins are the same but looking just like someone can have its benefits and negatives. Also, the rest of this project is important to help inform the public and especially parents that do have twins. I believe growing up as a twin is different than growing up with brothers and sisters.	Gabriel ,Campos		Clint , Broadbent	Poster Synchronous Remote
Child Development: Toddlers 2 year Olds	This presentation is part of a class project for FLHD 3200 (Child Development: Infancy through Twelve). We will provide information about children's physical, cognitive, and social & emotional development during the indicated ages. The presentation will also include information relating to child development theories and additional resources specific to this age group. The format is intended to be useful for current parents, future parents, and professionals who may work with children and families. It will provide a set of resources that covers all domains of development during this critical time in development.	Grace,Nowatzke	Rebekay Riggs Kamryn Grover Valerie Friant	Brionne,Neilson	Poster Synchronous Remote
Should school start later	I will be talking about how I think school should start later for students who want to do so.	Tayt,Smart		Clint,Broadbent	Poster Synchronous Remote
The Impacts of Sexual Trauma on Military Personal and their Families		Dakota,DiGuardi		Sarah,Allen	Poster Synchronous Remote
Social Media and Romance	It will discuss the pros and cons of using social media as a tool for finding romantic partners.	Autumn,Gardner		Clint,Broadbent	Poster Synchronous Remote
Infants and Attention Needs — Can you give them too much attention?	Can you spoil an infant by giving them too much attention? During the first few crucial months of a baby's life, there is no such thing. A baby thrives off of lots of skin-to-skin contact and warm, loving hugs at this age, and being physically close to your baby has been proven to significantly help your baby in many different ways.	Natalie,Brown		Clint,Broadbent	Poster Synchronous Remote
Is alcoholism and the abuse of other drugs hereditary?	I will be looking into whether or not alcoholism and the abuse of other drugs is hereditary or not. I will be looking in depth on both sides to determine valid arguments for whether or not it is hereditary.	Carmel,Slater		Clint ,Broadbent	Poster Synchronous Remote
Is social media an effective tool for finding romantic partners?	This presentation will analyze how social media has helped the effectiveness of finding romantic partners or if it has become more of a roadblock or obstacle.	Allan,Ahanonu		Clint,Broadbent	Poster Synchronous Remote
Should children with learning disabilities be mainstreamed?		Melissa,Hopper		Clint,Broadbent	Poster Synchronous Remote
Is the Every Student Succeeds Act helping every family succeed?	The ESSA was signed in 2005 by President Barack Obama. The law was designed to help every student have equal opportunity to go to school and gain the education they deserve. This law replaced the No Child Left Behind Act, which desperately needed some improvement. The new law requires schools to report their testing scores of children; instead of punishing them for having low test scores, it encourages the local school districts to intervene and see how they can improve. Funding is not dependent on the students, but rather on the district. While this has helped many students have access to an education, it may not be improving family life at home. There are some other improvements for the ESSA that can be made, such as giving more access to mental health services for not only the children at school, but for families at home. The ESSA encourages parents to be more involved with their child's education, but doesn't provide ways to take time away from work.	Ayumi,Whattcott		Sarah,Allen	Poster Synchronous Remote
Analysis of the SUPPORT For Patients and Communities Act Through a Family Stress Theory Lens	This Family Impact Analysis (FIA) aims to analyze the SUPPORT ( (Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment) for Communities and Patients Act through a family stress theory lens. On October 24th, 2018 it was signed into law to address the opioid epidemic. Every year many families, children, and marriages, are negatively impacted due to opioid addiction. Academic research from the Center for Disease Control (CDC) and The National Center for Biotechnology Information will be used to assess the effectiveness the SUPPORT Act has had in helping families. Different approaches in the analysis of the impact on families will be explored through a feminist value camp. In the ABCX model, resources will be heavily examined as well as its accessibility to all diverse populations, especially marginalized communities.	Mia,Correa		Sarah,Allen	Poster Synchronous Remote
Will remarriage cause more problems?	In my presentation I will be addressing whether or not remarriage will cause more problems within a family dynamic. On the flip side I will be addressing whether or not parents that have only been married once will positively affect the family. I plan on researching the positives and negatives to both, I am assuming already that there are many to both sides. My hypothesis is that families that have been remarried are likely to have more problems than those who only have one initial marriage. I believe that by adding more people to the scenario it will cause more chaos simply just because there are more people with different personalities and views on the situation.	Lucy,Eldridge		Clint,Broadbent	Poster Synchronous Remote
The Pros and Cons of Abstinence Only Education	Many parents and educators argue that abstinence only education is the most morally correct way to educate teens on sex, while others argue that abstinence only education creates more problems than it solves. In this project I will explore the pros and cons of teaching teens about contraceptives and sexual health, as well as what audiences typically support each side of this argument.	Kyla,Hubscher		Clint ,Broadbent	Poster Synchronous Remote

Is alcoholism and drug abuse genetic?		Kaitlin,Asay		Clint,Broadbent	Poster Synchronous Remote	
Independent Project	Is non-biological parenthood much riskier than biological parenthood?	Nadalee,Zaugg		Clint,Broadbent	Poster Synchronous Remote	
Language Development: Is it A Product of Conditioning?	For this presentation I will argue for and against whether or not language development is a product of conditioning. I also will be looking into how language develops and how it might differ in learning another language.	Haley,Artinger		Clint,Broadbent	Poster Synchronous Remote	
Impact of the Supplemental Nutrition Assistance Program	The Supplemental Nutrition Assistance Program is the largest federal nutrition assistance program. Better known as SNAP, the program provides a budget for individuals that have low incomes. This program promotes healthy eating and has been beneficial for many families across the nation. SNAP is a policy that directly impacts families. Family Stress Theory creates the idea that stressors within life can create many negative consequences within the family lifestyle. The theory teaches that it is important to reduce demand and increase resources. SNAP does this for families. When families are able to rely on the benefits provided by SNAP, there becomes a diminished level of pressure to get food on the table. SNAP provides the resources needed to help these families. Not only does SNAP create opportunities to be healthier mentally and physically, it promotes a positive lifestyle. Studies have shown that SNAP has effectively benefitted families in need, this is a push to get many families on a positive trajectory.	Sydney,Belnap		Sarah,Allen	Poster Synchronous Remote	
Impact of Comprehensive Sex Education on Adolescent Health	For my Festival of Excellence poster, I will be researching and presenting about the impact of comprehensive sex education on adolescent health and focusing on how social policy plays into this hot topic. I will use the family impact analysis to examine both the intended and unintended consequences of this type of sex education on not only children, but also their families, social groups, and other important relationships. I will do so by viewing this family problem through the ecological systems theory lens, while also incorporating the conflict theory as I evaluate the issues between families and schools regarding sex education. Once I have gathered the information and data I need, I will then use it to help me come up with solutions in an effort to improve the social policies regarding this topic.	Haley,Hendricks		Sarah,Allen	Poster Synchronous Remote	
		Audrey ,Austin		Clint,Broadbent	Poster Synchronous Remote	
Should the school year be lengthened?	I will be looking at And discussing the benefits or disadvantages of extending the school year.	Emma,Summers		Clint,Broadbent	Poster Synchronous Remote	
Are vaccines safe for infants?	I think vaccines are safe for infants and in my presentation I will explain why I chose this. In short vaccines are safe for infants because they are used to protect them from getting illnesses that would otherwise be very harmful to them.	Caden,Sorensen		Clint,Broadbent	Poster Synchronous Remote	
Nature vs Nurture	My project will be about nature vs nurture. I will be discussing which is more important and I will provide examples.	Martin,Ramos		Clint,Broadbent	Poster Synchronous Remote	
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<b>College of Performing &amp; Visual Arts</b>						
<b>Presentation Title</b>	<b>Presentation Abstract</b>	<b>Primary Full Name</b>	<b>Secondary Presenters</b>	<b>Mentor's Full Name</b>	<b>Presentation Type</b>	
Austyn Christiansen's Costume Design Portfolio	Over the past year I have learned so much in the world of Costume Design. I have learned how to properly sew, and how to do it well. I have learned how to take a character's personality and portray it through their clothes. I now know about historical and modern costuming. I also learned about other aspects of technical theatre so that I can better work with others so that our designs flow together.	Austyn,Christiansen		Mariya,Nedyalkova	Oral Face-to-Face	
Technical Theatre Portfolio	Portfolio of theatre work I've done	Susannah,Pilkington		Brian,Swanson	Oral Face-to-Face	
To Call Back Yesterday	I wish to present my costume design portfolio. I have a variety of skills in different areas of the field, which I will show in my presentation. These include drawing and rendering, handmade beadwork, corsetry, historical costuming, and working with Fosshape.	Ariana,Babbitt		Mariya,Nedyalkova	Oral Face-to-Face	
Costuming Portfolio	This will be a presentation of Tanah Hislop's Costuming portfolio.	Tanah,Hislop		,	Oral Face-to-Face	
Technical Theatre and Design Portfolios		Kolby,Clarke	Hannah Hickenlooper T01055264 racecarhickenlooper@gmail.com Amelia LudtT01083732 amelia.lu42@gmail.com Ruth McMullinT01097430 ruthmcmullin@suuemail.net Jordan McWhorter T01058242 jordanmcwhorter@suuemail.net Riley MeyersT01098294 rileym19@gmail.com Susannah Pilkington T01066653susannah.pilkington@gmail.com Melanie RustT01048094 melanie.r.rust@gmail.com Jeremy SattlerT01050395 jeremy.sattler@yahoo.com Jared SeidelT01086116jared.t.seidel@gmail.com Dora WatkinsT01103979 doraelizabethwatkins@gmail.com Lillian WillisT01055314 lillywillis1719@gmail.com	Kolby,Clarke		Oral Face-to-Face
	Students with a focus in technical theatre and design will present their portfolios showcasing work done in their respective disciplines over the last 2 years.		Other students may join the group as space and time allows.			

Layered Light	<p>"Art and music shine a light of meaning on ordinary life, and through them we are able to confront the things that trouble us and to find consolation and peace in their presence." - Roger Scruton</p> <p>For this collaborative project, students explore how artistic disciplines can support each other with inspiration, energy, emotion, and motivation. SUU's Advanced Black and White Photography class created the visual narrative to "Perfectly Voiceless," a creative endeavor between the Art &amp; Design Department and the Music Department.</p> <p>For this project, each student submitted 6ft (nod to the unique pandemic environment we find ourselves in) of black and white film, 48 frames that were scanned in to produce a stop-motion movie. Additionally, black and white darkroom prints were made, which is what we would like to showcase during the Festival of Excellence.</p>	Rheana,Gardner	<p>T01058719 nataliereese1@suumail.net, T01061964 alyse.bundy2@gmail.com, T0101789 shann.butl@gmail.com, T01053017 connercush@gmail.com, T01054527 vadajae@gmail.com, T01054508 tylerfinn8621@gmail.com, T01007865 jessiefae98@gmail.com, T01076740 emlonborg@gmail.com, T01015293 my.username.ideas.were.taken@gmail.com, T01081193 autumnnichardson@suumail.net, T01075488 mactarbell@gmail.com, T01075539 laynawilcock@gmail.com</p>	Rheana,Gardner	Display Face-to-Face
The Viewing Order of Miraculous Ladybug	This presentation will look at the French-made show "Miraculous Ladybug" and the complicated history of its order. We will be looking at how Netflix has screwed up the order, along with explaining how other avenues have gotten it wrong. We will also explore production order, the French viewing order, and other international lists. Anyone interesting in looking deeper into this "kids shows" is welcome!	Elliott,Nutter			Oral Face-to-Face
No Kissing Allowed: Navigating Directing Theatrical Productions in the COVID-19 Era	The theatre industry took a gigantic hit with productions across the globe being cancelled because of COVID-19 restrictions and guidelines. Theatre wasn't completely cancelled though which meant that productions looked different. It was always evolving and changing. Mallory Blue, who had the opportunity to direct 3 production between the time of May 2020-February 2021 talks about how each production was vastly different and evolving from each other and the unique challenges the COVID-19 era brought to the creative and production process. What it was like to have COVID scares during the production, working virtually at times, always wearing a mask, and implementing social distancing in blocking. She also talks on the new and creative techniques and technology that were learned that never would have happened had there not been COVID-19 guidelines.	Mallory ,Blue		Scott,Knowles	Oral Face-to-Face
Jazz Dance in Utah Higher Education	Southern Utah University is the first institution in the state of Utah to implement a track for studying Jazz dance that is equal to the tracks for Ballet and Modern. This research looks at the general history of Jazz dance, Jazz in Higher Education, Jazz in Utah Higher Education, and why Jazz should be offered in tandem with the standard forms of Ballet and Modern. The goal is to offer perspective on why Jazz has not been offered equally until now at SUU and why other institutions still only offer Jazz as an elective or not at all and what conversations are happening around the shift in offering Black Dance styles more frequently in addition to their Westernized counterparts.	Kyrsten,Harper		Danielle,Sheather	Oral Face-to-Face
Romantic Scenes and Hormonal Teenagers: The Importance Of Intimacy Choreography in the High School Theatrical World	Capstone project of Mallory Blue where she learns and implements the new method of Intimacy Choreography in her directing methods for the stage. She attended a workshop in 2019 hosted by Intimacy Directors' International (IDI) and University of Utah and integrates what she learned into the show that was her directorial debut. She also researches adolescent development and discovers that implementing methods taught by IDI would be beneficial for the high school theatre community in keeping the still developing teenagers mentally, emotionally, and physically safe when doing "love scenes" in shows.	Mallory ,Blue		Scott,Knowles	Oral Face-to-Face
Radium Girls	We'd like to present a scene from Second Studio's upcoming show, Radium Girls, as a part of Festival of Excellence. We open the show on April 1st so the 31st would be a perfect day for us to do a preview and show what we've been working on for the whole semester!	Ada Lauren,Taylor	<p>Laurel Buxton T01065173 mountainlaureluniverse@gmail.com, Eleora Johnson T01108530 eleoraryan@gmail.com, TJ Horton T01063109 t3311j@gmail.com, Stephanie Hernandez T1066651 smolsteph@gmail.com, Spencer Barfuss T01057355 2spencerbarfuss@gmail.com, Nathan Reeder T01013830 noginrockin@gmail.com, Sammy Gaylord T01035608 wgsammy99@gmail.com, Bridgette Long T01050926 bridgettelong@gmail.com, Ashley Aquino T01125587 im.ashley279@gmail.com, Emily Wennerholm T01100724 emilyjwennerholm@gmail.com, Emily Smith T01066595 emilyerins18@gmail.com, Matthew Wangemann T01089750 mattwangemann@gmail.com</p>	Scott,Knowles	Performance Face-to-Face
Johnny Joy	This presentation is a movement based research project completed for DANC 3340 Jazz Dance V course in the fall of 2020. Within this project I examined the history of Jazz dance and music. Through my research I was able to investigate the dynamics of a jazz composition Oh Johnny, Oh Johnny, Oh composed by Abe Olman originally created in 1917 and re-recorded, remastered, manipulated and performed by The Andrew Sisters in 1942. Through further research I was able to find strong connections to USO Tours during WWII. This helped inform my creative process and led me to use jazz dance vernacular of the era in the creation of a solo. This solo was a movement investigation in the jazz dance idiom, a dance form unfamiliar to my personal dance history, which encouraged me to step far out of my comfort zone into a style I had never studied before. Having the opportunity to analyze the history of the era from a musical and movement perspective resulted in a piece of choreography that I am excited to share, not just for the joy it brings me, but also for the significance I feel it has when taking a closer look at Jazz vernacular, culture, and history.	Bailey,Walker		Danielle,Sheather	Performance Face-to-Face

Pulling the Strings in the Time of COVID	How can a director of an opera program make a program interesting when every performer must wear a mask? The performers faces are covered. The program must be interesting to the audience and educational for the students. As the Director of the SUU Opera Program, I needed to come up with a creative solution. I decided that we would use puppets and marionettes. All of the students had an opportunity to sing as well as learn puppetry. The first step was picking the music and assigning it to the students. The second step was to have the students learn the music. The third step was picking out what puppets to use for each song and then investing in the puppets. The fourth step was to stage the duets.	Carol Ann, Modesitt	Ashlee Brouwer T01062637 ashleeelizabeth.vocal@gmail.com Cambria Douglas T01083604 cambriajane@gmail.com Lehi Moran T01113405 lehi.moran11141@gmail.com Adelaide Naegle T01041815 adelaidemarie99@gmail.com Samuel Park T01033321 samuelgpark1@gmail.com Anne Turner T01104196 luluturner552@gmail.com Mackenzie White T01057343 mackenziewhite@suuemail.net Tracey Bradshaw ? bradshawT@suu.edu	N/A, N/A	Performance Face-to-Face
A Newly funded student performance group Hal Campbell String Quartet	"Dr. Hal Campbell is a legend in the Cedar City musical community, including Southern Utah University where he was chair of the music department for many years, and then Dean of the College of Arts and Letters. He was instrumental in the music department receiving accreditation from the National Association of Schools of Music (NASM) which the department still maintains to this day, ensuring a high standard of teaching and education for our talented student musicians. When Dr. Xun Sun was developing the idea for a university student string quartet and was thinking of what name to give the new ensemble, it occurred to me that we should name it the "Hal Campbell String Quartet" and Dr. Sun readily agreed. We quickly contacted Dr. Campbell to get his approval and he seemed elated that we would honor him in this way. So, this concert will be a dedication of the newly formed Hal Campbell String Quartet that will feature some of Dr. Campbell's own compositions which are now archived in the Special Collections of the SUU Library. Hal was an extremely talented composer, director and pianist, and he shared those talents with the university and with community groups, including the Master Singers and the Orchestra of Southern Utah. Dr. Campbell's dedication and impact on the musical life of SUU, Cedar City and beyond is extensive, and this concert is also meant to give thanks for his legacy, and to carry it forward with his name and his life's work which touched so many people and endeared him forever in our hearts." --- Dr. Lawrence Johnson, Department of Music Chair	Xun, Sun		N/A, N/A	Performance Face-to-Face
I Ching: A Model for Life and Art	The I Ching is a Chinese Classic Text that has been used as a divination manual, cosmological text, and point of philosophical commentary for centuries. Originating from the Chinese Zhou Dynasty between the 10th and 4th centuries B.C, it maintains cultural influence today as China's most ancient text, and is the subject of modern analysis and application in both Eastern and Western thought. Throughout the 20th century, the I Ching had a notable impact on cultural figures spanning artists, poets, philosophers, and composers. One of these is Danish composer Per Nørgård in his solo work for percussion titled I Ching (1952). Through the live performance of Nørgård's piece I Ching as well as discussion of the text as an influential current in 20th century art, this presentation seeks to educate listeners about a focal point in the Western understanding of Eastern thought. The piece of music itself is a small-scale, approximately six minute solo that is guided by lyrical melodic poetry and gentle, bell-like sounds.	Conner, Cushman			Performance Face-to-Face
Directing II: 3-5 Minute Film Festival	This presentation is an opportunity for young directors to explore their craft in the medium of film. By employing basic film techniques, they are charged with creating a film narrative which incorporates a specific emotion, prop, soundtrack and genre. These presentations encourage the student directors to show their artistic leadership and creativity. The presentation will highlight the top three film winners, chosen by the course instructor and a panel of student/faculty judges.  Can be Synchronous Remote via Zoom, or if Face-to-Face: Preferred Venue: Sharwan Center Movie Theatre Requested Equipment: Projection system, Large screen, sound system, internet access.	Peter, Sham		Peter, Sham	Performance Face-to-Face
Gallery Talk		Maren, Holmes	Colton Hughes: T01034890 ch583144@gmail.com Rian Kasner: T01053707 riankasner@gmail.com Carolina Pospischel: T01093163 carolinapospischel@gmail.com Morgan Jensen: T01032958 morganjensen@suuemail.net Kaela Rollins: T0095819 kaela.rollins@gmail.com Hollie Grissom: T01036274 holsweetpea@hotmail.com Zaylie Collins: T01025826 zzayliecollins@gmail.com Gratten Perea: T00523148 grattperea@gmail.com Jessica Scott: T00761613 jessicascott1@suuemail.net	N/A, N/A	Display Face-to-Face
LGBTQ Presence in Pre-Stonewall 20th Century America as Seen Through Dance History	Graduating Art & Design BFA students will lead a guided tour through the exhibition of their work at SUMA. Students will speak about their inspiration, process, and experience working on their pieces, and answer questions of Gallery Talk attendees.  While the Stonewall riots of 1969 are recognized as the beginning of the modern gay rights era, that does not mean that the LGBTQ community did not exist prior to it. The presence of the LGBTQ community in pre-Stonewall 20th century America can be seen through events in dance history, which show that despite being largely ignored and erased, there was an important LGBTQ presence in the United States during this era. By learning about these events from dance history, we are able to gain a greater understanding and appreciation for the vital and resilient presence of the LGBTQ community in the early and mid 20th century.	Matthew, Bowden		Danielle, Sheather	Oral Synchronous Remote

You Are What You Dance: A Study on Embodiment and Identity	Developmentally speaking, physical movement is a crucial part of how one constructs the world around them. Thomas Csordas from the University of California San Diego spoke about the physical sensation of identity building as, "an existential condition in which the body is the subjective source of experience. The ground from which it springs is culture and the experience of being-in-the-world." (Payne 164) Everything we take in from what we see, hear, and most importantly experience, is examined in our thoughts as we start to make sense of the world. From the first movements as a small infant, our identities and personal understandings are already being formed. When we take that one step further, dance can have the same effect for any individual. The kinaesthetic responses coupled to the development of identity is increased when learning to artistically and creatively express oneself through movement. (The phrase "kinaesthetic response" refers to the sense of one's own movement and the receptors which provide the information. Smyth 19) As we further examine the relationship of dance and embodiment (Features of cognition that are deeply dependent upon characteristics of the physical body of an agent, such that the agent's beyond-the-brain body plays a significant causal role, or a physically constitutive role, in that agent's cognitive processing. Wilson), it can be inferred that incorporating dance and movement into one's youth and adolescent years will construct a more authentic and recognizable sense of self and identity.  My research was then utilized in my rehearsal space to construct my piece, "on ne nait pas femme: on le devient," for the Student Dance Concert, "em-pir-i-cism," that premiered this past February.	Caden,Thomas		Nick,Blaylock	Oral Synchronous Remote
Queering the Voice	The human voice is frequently researched, theorized and taught as though it were a biologically sexually dimorphic characteristic. Our vocal tracts, however, are extraordinarily elastic. The ways in which we use our vocal folds, the surrounding cavernous resonators, and the bellows that sound them, are not determined by our biological make-up, but by our training, culture, and practices of usage. Children begin performing vocal gender differences as early as four years old, long before any sexual dimorphism could begin in the vocal tract. Despite this evidence, most researchers are still convinced that fundamental frequency is both a biologically determined trait and the greatest marker of gender in the voice. I have spent the last few years exploring, through performance and teaching practices, the extent to which the vocal instrument is shaped by the distorting forces of social norms and practices, and the degree to which the voice may recover its resiliency once those constraints are recognized and relaxed. I have discovered that, far from being biologically determined in its sexual dimorphism, the voice is a continuous and changeable praxis which is constructed by a lifetime of gender performance. It turns out that timbre, a malleable element of the voice, is one of the key differences in indexing gender in the voice, while being one of the least understood and studied. I will endeavor, in this presentation, to explain the bodily practices which have shaped our voices, the ways in which we perform gender through them, and how we may learn to free our vocal performance from binary constraints.	Lisa,Quoresimo		N/A,N/A	Oral Synchronous Remote
Dance Injury Prevention and Strength Training	I would like to address dance injury prevention and strength training from an exercise science perspective. Applying knowledge from my dance kinesiology course, exercise science kinesiology courses, and my own injury screening evaluation done by the Master's of Athletic Training (MAT) program students. I want to talk about certain principles that are commonly addressed in athletics then apply it on dancers. Dance is very athletic but has different demands because they are trained to be hypermobile and require both anaerobic and aerobic training. Those demands require different ways of thinking about the methods of training and ways of preventing injury while keeping a lot of the underlying fundamental principles taught in athletic training.	Becca,Chidester			Display Synchronous Remote
<b>Library/Honors</b>					
<b>Presentation Title</b>	<b>Presentation Abstract</b>	<b>Primary Full Name</b>	<b>Secondary Presenters</b>	<b>Mentor's Full Name</b>	<b>Presentation Type</b>
Libraries in the Academy: A Millennial Reappraisal of Mission, Purpose, and Function		Richard,Saunders			Oral Face-to-Face
Home Birth vs. Hospital Birth and Their Associated Risks	I will present on the information I have gathered through research, primary interviews with healthcare and non healthcare workers about their feeling, thoughts, and perceptions on home birth, hospital birth, and their differing risk and safety factors.	Shawntae ,Gagnon		n/a,n/a	Oral Face-to-Face
Investigating the Presence of Streptomycin in Utah Insects	Antibiotic resistance is one of the biggest threats to healthcare occurring around the world. The naturally occurring bacteria, Streptomyces, is the source for many commonly used antibiotics. Antibiotic resistance can be fought with the development of alternative antibiotics created from any newly discovered strains of Streptomyces. New compounds of Streptomyces are rarely discovered when searched for in common locations (such as soil or plants), but new research has found Streptomyces in unusual places. According to a 2019 study, insects have been discovered as vessels carrying new compounds of Streptomyces that potentially can be an original source of antibiotic material (Chevrette et al., 2019). This new research tested insects from all around the United States, but no samples were collected in Utah. I will be testing for the presence of Streptomyces in insects collected from three different Southern Utah sampling locations: Woods Ranch, Cedar City's Veteran's Park, and St George's Red Hills Desert Garden. My research will focus on the common insects collected at each location including grasshoppers (Orthoptera) and bees, wasps, and ants (Hymenoptera). This experiment's procedures include DNA extraction, DNA sequencing, determining which bacterial primers result in optimal PCR results, and gel electrophoresis to analyze bacterial presence. I hypothesize that Streptomyces will be present in at least one of my collected insect samples. The discovery of new forms of Streptomyces can lead to the formation of new antibiotics that can be used to fight against the increasingly dangerous phenomenon of antibiotic resistance.	Sarah,Wilcox		Nathaniel ,Cannon	Oral Face-to-Face
Teaching and Learning in an Age of Disinformation	In this presentation we examine how changes in the information landscape and the role of information in society require a new approach that provides students with the skills, shared vocabulary, and context to properly understand the world around them, engage with multiple viewpoints, communicate across differences, and dispel misinformation.  In this presentation we examine how changes in the information landscape and the role of information in society require a new approach that provides students with the skills, shared vocabulary, and context to properly understand the world around them, engage with multiple viewpoints, communicate across differences, and dispel misinformation.  INFO 3000 Information & Society: Critical Thinking in the Post-Truth World is a one-credit, upper-division Information Literacy course taught by a team of Southern Utah University librarians since Fall 2019. Designed around the themes of fake news and "truthiness", the course aims to provide students with a heightened awareness of information behaviors, including production and consumption, and a greater ability to navigate, assess, and scrutinize information across media.	Anne,Diekema	Caitlin Gerrity ; Christopher Clark ; Maralee Carlin ; Paula Mitchell ; and Tammy Buehler	N/A,N/A	Oral Face-to-Face
"Be stone no more": A Phone-based Audio Exhibit for Public Art	This presentation will introduce a cultural heritage site officially opening this summer (or when the COVID pandemic finally subsides.) Funded by Utah Humanities, CEDAR TALKS is a digital humanities project providing audio narration for 30+ pieces of public art in and around downtown Cedar City delivered through users' cell phones. In brief, recorded messages the project seeks to let the art speak for itself. A wide variety of pieces and media are represented including bronze statues, painted murals, abstract sculpture, stained glass windows and rock writing. CEDAR TALKS is a self-guided art tour available 24 hrs/day, 365 days a year where art prompt listeners to join a conversation among three important communities that have shaped Cedar City for more than 170 years: 1) the Pioneers/Paiutes, 2) the College/University Campus and 3) the Arts. By sharing these three community perspectives with citizens and visitors alike the project hopes to deepen everyone's appreciation for this beautiful area and create pathways for discussion and understanding.	Matt,Nickerson		N/A,N/A	Oral Face-to-Face
Nursing Virtual Job Shadowing	The purpose of this project was to provide nursing and pre-nursing students in Utah a safe, digital way to job shadow during and after the COVID-19 pandemic. During the pandemic the opportunity to shadow health care professionals has not been readily available for many students. Through my research, I learned about the positive impact that job shadowing can have on pre medical students' career choices and experience. Job shadowing has the potential to increase confidence, surety, and the knowledge that students have about their field. With RHS and Utah's AHCE program, I put together a virtual job shadowing canvas course designed for pre-nursing and nursing students. This canvas course includes personal interviews I conducted with nurses from all backgrounds and specialties. This will give students the opportunity to learn more about different career paths they can take in the nursing field. This is especially crucial in a time when nurses are frequently experiencing heavy work loads and cannot give the individual attention needed for quality teaching through direct job shadowing. Pre-nursing and nursing students all over Utah will have the opportunity to enroll in this course now and after COVID. In an ever increasing world of technology, this course will continue to be high in demand well after the pandemic. This course will continue to grow as we interview more nurses and glean valuable information from their experiences.	Kaylin,Shelley		Rita,Osborn	Oral Face-to-Face

The Southern Paiute Rosetta Stone: A Diachronic Account of Southern Paiute Orthographies	<p>Southern Paiute is a severely endangered indigenous language spoken in southern Utah, northern Arizona, southern Nevada, and south-eastern California. This language is almost exclusively oral, although a number of written orthographies have been formulated throughout history. No orthography enjoys widespread or predominant use and when the language is written it is usually done so in informal, phonic orthographies. The presence of a standardized, readable orthography which comports well with the underlying phonology of Southern Paiute is sorely missing among speakers, Paiute community members, and any interested learners of the language. The development of such an orthography is essential to the generation of effective educational materials and to foster a long-term vitality of the language.</p> <p>The project of this present thesis is to compile a corpus of textual resources to study the history of the written Southern Paiute language, ranging from Powell's early expeditions in the late 1860's to the present day. This corpus is then analyzed, corroborating the various sources and relating the former sources to the contemporary International Phonetic Alphabet. In addition, a provisional orthography is presented by the author in the hopes of striking a balance between technical accuracy to the phonology of Southern Paiute and facile readability to interested learners. A long form attempt of this orthography is demonstrated by re-transcribing Sapir's transcript of The Origin of the People (elicited from Tony Tillohash in 1910) into the provisional orthography.</p> <p>Since the orthography presented in this thesis is admittedly provisional, speakers and students of the Southern Paiute Language, are open to alter or critique the orthography for their own purposes; however, it is submitted in the spirit of igniting interest in, celebrating the presence of, and cultivating into the future the rich linguistic heritage of the Southern Paiute People.</p>	Jonathan,Hatch	Jason,Smith	Oral Face-to-Face	
Behind the Scenes of your Scholarship	<p>As students employees who work with the SUU Advancement office, we have learned a lot about what it takes to make higher education possible. Tuition and student fees only make up for about 1/2 of campus needs, and the advancement office has to come up with the rest. Yearly donor contributions to SUU are the cornerstone of the university's financial foundation. Much of what makes SUU great, small class sizes, personalized teaching, nationally ranked programs and internships opportunities - are only possible because of annual donations of all sizes that the university receives. We are the people who ask for these donations. As leadership engagement and giving officers, get to fundraise, campaign, and keep Alumni and friends of the university connected to SUU, no matter where they are. The work we do makes student scholarships and programs possible.</p>	Amelia ,Naumann	Justin Hamilton Makayla Brown Amelia Naumann	Lexie , Grant	Oral Face-to-Face
Diverse Learning Experiences inside and outside of the Classroom at SUU	<p>As an international student from Mali, West Africa, as well as an honors student, I would like to complete my honors capstone project as a platform to share my experience adding a different mix of values into my education. According to Michael E.Porter "Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value." After completing the Jumpstart program, an experiential learning initiative at SUU, I decided to add philosophy to my major in order to create a unique mix of values. By doing so, I learned skills that will shape my future in the political and business world. These skills include creativity, teamwork, and team management. I was interested in majoring in Business Management and Minor in Philosophy. In addition to these disciplines, I become an honors student. These disciplines have expanded my learning in college and was an eye-opener for me and I was enriched by the experiential learning of my college experience. Experiential learning is the application of theory and academic content to real-world experience, either within the classroom, within the community, or within the workplace, which advances program or course based learning outcomes that are specifically focused on employability skills. It enables students on campus experience, strengthens innate creativity and lays the groundwork for global engagement as students transition to their chosen careers. In the context of business education, I have realized that it is of great importance to develop strategies that integrate in-class knowledge, leadership and managerial skills. This presentation is to add light about my experiences at SUU.</p>	Nouman ,Kante		Kurt ,Harris	Oral Face-to-Face
SUU and the Pandemic	<p>During this unprecedented time in the history of SUU, in my role as Special Collections Librarian, I have been documenting SUU's Campus Community's Coronavirus/COVID-19 experiences. This pandemic has affected all of us in many different ways and we are all eyewitnesses to the events that have been unfolding this past year. I created a place for the campus community to record their thoughts, experiences, creations, photographs, and feelings to the events that have been unfolding this past year and submit them to our archive. My goal was to capture responses to this crisis to provide future historians, researchers, and students with information and data on life in our community during this trying time.</p>	Paula,Mitchell			Oral Face-to-Face
Fear Reviewed: The Representation of Research in Jamesian and Lovecraftian Horror	<p>In the horror stories of M.R. James and H.P. Lovecraft, protagonists are often scholars, antiquarians, and researchers whose sense of reality is upended by their research into forbidden books, strange artifacts, forgotten histories and esoterica. In this talk, I will look at how the research process in these stories serve to explore our anxieties around information retrieval. I examine how information literacy is used by these writers both as a source of supernatural occurrence and as protection against it.</p>	Christopher,Clark		N/A,N/A	Oral Face-to-Face
Fight for Inclusion: Addressing Isolation of Individuals with Disabilities	<p>Abstract: Individuals with disabilities undeniably face discrimination in innumerable forms on a constant basis. Perhaps one of the most prevalent forms of discrimination is isolation. Due to society's general lack of awareness surrounding this worldwide issue, it is a topic that has been neglected. As a result, individuals with disabilities lack advocates for moral and inclusive treatment. For these reasons, I have researched particular ways and environments that stigma affects individuals with disabilities, as well as ways society can adjust to better include the population of disabled individuals in their entirety. To take action, I have been creating and implementing events to lessen the divide between individuals with disabilities and encourage inclusivity.</p>	Abbey,Bastian		Nichole , Wangsgard	Oral Face-to-Face
Teamwork Makes the Rehab Work	<p>Key Words: Support, rehabilitation, bonding, adherence, mental health, physical healthHumans are social creatures. Despite this, there is rarely an emphasis placed on social benefits in the health care field. The purpose of this study was to learn about the effects of social support systems in physical rehabilitation. This study consisted of two parts: a literature review concerning the impact social support can have on rehabilitation effectiveness, and a series of interviews with content experts in multiple fields to gain understanding about support systems and their role in rehabilitation and human behavior. The results demonstrated that although the subjects understand how social support can help others, there is little evidence of that practice being executed in health fields and their respective scopes of practice. While we could see the theoretical benefits of social support, there is little practical data due to lack of implementation. This study did not result in solid evidence that social support aids rehabilitation, rather, it revealed that this is a field that lacks research and experimentation. There is more that rehabilitation clinics can do to increase social support systems and aid physical health. Using this, Clinicians can gain understanding, and as we implement more social support systems into physical rehabilitation, we can learn more about how it benefits rehabilitation.</p>	Allison,Hall		Christine,Samson	Oral Face-to-Face
A Better Simulation	<p>People have been trying to predict the outcome of basketball games since the game was invented. Video games, betting sites, and fans have been trying to find the best way to guess the winner, and I am here to help. I have developed my own basketball game simulator as well as researching other popular outcome predictors. Which one will come out on top?</p>	Carrigan,Holt		Gary,Cantrell	Oral Face-to-Face
Plasma Spectroscopy as Applied to Astrophysical Observations	<p>The interpretation of spectral lines for plasma characterization is a well-established diagnostic technique for determining number density and electron temperature, essential parameters for predicting radiation dynamics, local thermodynamic equilibrium, and atomic kinetics in laboratory and astrophysical environments. Specifically, spectra are the only way to compare predicted plasma quantities produced by hydrodynamic simulations, such as electron temperature, density, and fluid motion to what can be observed in astrophysical objects such as Supernova Remnants (SNRs) and Black Hole Accretion disks. To this end, we are using the atomic kinetics code FLYCHK to create synthetic spectra, which we will convolve to consider temperature and density gradients. We will then compare the spectra we created to spectra collected using the Chandra and XMM-Newton x-ray satellites to determine the accuracy of the hydrodynamic codes. This research is currently ongoing.</p>	Rebecca,Nelson		Theodore,Lane	Oral Face-to-Face
Historic Range of Monarch Butterflies in Utah	<p>Monarch butterflies are known to be declining throughout North and Central America, their known host plants, milkweed, are being lost due to herbicide use and other agricultural practices. The state of Utah doesn't have a significant agricultural footprint. We evaluated the known monarch butterfly distribution from museum and online specimen records. We found records of monarchs dating from the 1920s through contemporary records. These data were analyzed and used to create a map of the historic range of monarch butterflies in Utah.</p>	Heather,Vielstich		Samuel,Wells	Oral Face-to-Face

<p>The Influence of Human Resources: A Study of Company Culture in a Residential Treatment Center</p>	<p>Residential treatment centers currently face major issues such as burnout, high turnover rate, and low employee satisfaction levels. While there has been previous research on these problems in the medical field, the focus on residential treatment centers has been limited due to the confidential nature of its clientele. Even less research has been done through the lens of company culture in residential treatment centers. My experience as an employee at a residential treatment facility prompted this topic of study. I began with desk research. Secondary data was compiled from a wide variety of sources including a variety of scholarly articles. Then, employees at the residential treatment center I was evaluating were interviewed. Certain circumstances diminished the number of interviews I was permitted to conduct and so I decided on using a grounded theory approach with a proportionate stratified sample in order to dig deeper into the interview responses I already possessed. Several themes such as miscommunication, proper training, and feeling appreciated were identified and analyzed. The human resource department was not as involved in building and maintaining company culture as originally hypothesized. Overall, there are several simple changes that the residential treatment center which was analyzed can implement to improve company culture. These findings will be given to the treatment center for support with future decision making.</p>	<p>Sarah,Tullis</p>		<p>Gerry,Calvasina</p>	<p>Oral Face-to-Face</p>
<p>The Effects of Socially Conscious Marketing on Brand Attitude</p>	<p>The challenges of the year 2020 changed the tone of social media marketing for many brands as they adapted to the changes to the nation and the world. One of the most prevalent alterations to the online conversation was an increase in the use of Socially Conscious Marketing (SCM) by brands both in response to the novel COVID-19 pandemic and other prevalent social issues. This study aims to determine how the use of SCM in fashion brands' Facebook social media campaigns alter their audience's brand affect to determine how effective SCM is in a marketing plan. Specifically, it compares engagement between posts containing SCM and not containing SCM to determine both which posts received more interest and which had more positive interactions.</p> <p>To determine the efficacy of SCM in social media, this study used a content analysis to compare Facebook posts between prominent clothing brands Patagonia, Forever 21, and Bombas. Each analyzed post was coded for theme as well as engagement the post received. The results suggest that on average, across all three brands posts that contained SCM themes received a higher engagement rate than non-SCM posts, though each post performed differently dependent on the theme. These results suggest that the sincere use of SCM can boost interaction with a brand and increase positive brand affect as a whole despite dissenting audience members. Future research will need to be completed to compare results across other industries as well as SCM not aligned with a brand focus, values, or mission.</p>	<p>Casandra,Lyon</p>		<p>Lijie,Zhou</p>	<p>Oral Face-to-Face</p>
<p>Nutrition Education for Spanish Speaking Population</p>	<p>Our education blesses our lives in many ways, including the things we learn about nutrition, but in many countries around the world people do not have the opportunity to receive this education. There are several things being done right now to help increase the importance of nutrition and help educate people across the globe. Programs are being tested to see whether or not education is improving the lifestyle choices of the people who receive it. For my project I wanted to help educate underserved communities; especially those who are native Spanish speakers. To fulfill this I created basic nutrition videos to reach the Spanish community, so that they will be able to make small changes to be healthier in their homes.</p>	<p>Morgan,Clawson</p>		<p>N/A,N/A</p>	<p>Oral Face-to-Face</p>
<p>Fairy Tales and Culture</p>	<p>Fairy tales have permeated and wedged into the lives of countless masses, creating a commonality among millions despite differences in culture, location, language, and belief. Tales that originated throughout Europe, India, and Africa share similar elements and influences such as historical events, mythology, mythical beings, specifically fairy godmothers and witches, the environment, storytellers, translators, Christianity, oral tradition, and the roles of women. These influences altered tales from one translation and adaptation to the next. The purpose of this project is to examine the well-known tale Cinderella and the lesser-known tale The Six Swans and their variants to find similarities and differences between adaptations and originals, to discover why certain elements were maintained, and others were not depending on location, Christianity, patriarchal views, and gender roles.</p> <p>Examining well-known, widely spread tales such as Cinderella, The Glass Slipper, La Cenicienta, Cendrillon, Aschenputtel, and Rhodopis to lesser-known The Six Swans, The Wild Swans, Truth's Triumph, Udea and her Seven Brothers, The Seven Ravens, and The Twelve Brothers, reveals that popular tales portray females as damsels in distress rather than lesser-known tales where women are forced into silence to rescue men; going against traditional gender roles. Therefore, Christianity affected the depiction of women, offering only two paths: an 'ideal' damsel or an evil enchantress. Christianity's spread popularized tales that projected 'ideals,' while tales that did not portray women as only damsels, wicked stepmothers, or witches slowly slinked into the shadows, a prominent problem faced in today's pop culture that continues to idealize specific gender roles.</p>	<p>Sydney ,Jensen</p>		<p>Julie ,McCown</p>	<p>Oral Face-to-Face</p>
<p>TikTok Teaching</p>	<p>Adolescents spend between 6-10 hours a day on social media. American school days, on average, are 6 hours a day. That means that students are spending the same amount of time, if not more, on social media as they are in the classroom. Some of the most popular social platforms include applications such as: Instagram, Snapchat, and Youtube. One social media platform that has been on the rise, especially during the pandemic, is TikTok—a platform of 60 second videos on various topics. This project explores how English Language Arts topics can be presented through social media, specifically TikTok, in both English and Spanish in order to reach students in different ways.</p>	<p>Kimberly,Hodson</p>		<p>Lisa,Arter</p>	<p>Oral Face-to-Face</p>