### **Creative Visual Art Projects**

#### **Ball Python**

Mary Tusten
Inge Balch
Mass Media & Visual Arts

This is a plaster sculpture made for Inge Balch's Sculpture class. It was modeled after a ball python and chiseled out of plaster. This piece served as a way to help me understand how to create a form by taking away rather than adding like I would have with clay.

#### **Creative Visual Art-Painting and Sculpture**

Erynne Jamison
Inge Balch Professor of Art/Russle Horton Professor of Art
Mass Media & Visual Arts

AS 121 Painting 1

AS 351 Painting 2

AS 130 Ceramics 1: Hand Building

Theses are a few painting and sculpture pieces that I have worked on throughout my time here at Baker.

#### Hand built and wheel thrown Ceramics

Abigail Dawson Inge Balch Mass Media & Visual Arts

**AS130- Ceramics** 

#### **Hand Built Ceramics**

Tyler Brown
Inge Balch
Mass Media & Visual Arts

**AS130- Ceramics** 



#### Lammers

Logan Pope
Inge Balch, MFA
Mass Media & Visual Arts

Clay figure created from red earthenware clay.

#### Wheel thrown ceramics

Cooper Allen
Professor Inge Balch
Mass Media & Visual Arts

Wheel thrown ceramics, plates, lidded pots, and pitchers

### **Expressive Performances**

#### **An Inside Look at Eating Disorders**

Alyssa Glover
Danielle Hemingson
Mass Media & Visual Arts
Music & Theatre

In this inside look at eating disorders an art walk around the room featuring a first hand look at the struggle of having an eating disorder as well as an original monologue written and performed.

#### **Characters on a Stage**

Ryan Merchant Marti Mihalyi Humanities

I will be reading a collection of original poems that I was selected to present at the Sigma Tau Delta English Honor's Society conference in Cincinnati, Ohio. The poetry manuscript is titled: Characters on a Stage.

#### **Driving Home**

Katelynn Zeluf Marti Mihalyi mentor- writer in residence humanities dept. Humanities

I will read original prose and poetry written withen the creative writing program at BU that showcases a variety of writing styles with a focus on intense language. The writing emphasizes sonic qualities, language, and imagery with themes ranging from the natural world to joy and loss.

#### Found on the Physicist's Desk

Madison Brown
Professor Marti Mihalyi
Humanities

This original collection of creative poetry is heavily influenced by my undergraduate studies. Some of which can be found in the school published literary magazine; Watershed. This past March, I presented this work at the Sigma Tau Delta Conference, a prestigious International English Honor Society.

#### **KCACTF-Irene Ryans**

Jason C Shipps
Tom Heiman, MFA
Music & Theatre

I will talk about the KCACTF gathering, as a whole. Then, I will explain the Irene Ryans acting competition, and perform two of my pieces from the competition.

#### The Nature of Observation

Matthew Mogle Professor Marti Mihalyi Humanities

This presentation is a collection of original poetry derived from my life experiences and observations. I will be reading from a manuscript presented at this year's Sigma Tau Delta National Convention.

#### **Platform Presentations**

#### Baldwin City, Kansas and its Celebration of the United States Bicentennial

Blythe Smith
John Richards
History, Culture & Society

In the midst of political upheaval the United States had a massive celebration of it's creation and heritage, the American Revolution Bicentennial. Baldwin City's celebration of the Bicentennial showing not only how the nationalism was created and its importance to the community in the moment.

#### **BOOK Award Winning Presention on Capitol Federal**

Destiny Bruno
Kevin McCarthy
Business & Economics

I competed in Baker University's BOOK competition and won first prize. The presentation will be over the organization structure of Capitol Federal as well as a brief overview of my internship experience.

#### **Brains & Bikes: How They Are Related**

Kristen Shaw
Amy Wintermantel
Education

The powerpoint presentation contains a model of the brain that is approachable for elementary students. The brain and how it works is compared to riding a bike. A bike helmet with the brain's anatomy painted on it is used as a visual aid in addition to the presentation.

#### Catherine the Great and the Sexual Enlightenment

Catey Payne
Dr. Leonard Ortiz, Associate Professor of History
History, Culture & Society

This presentation will cover the life of Catherine the Great, Empress of Russia from 1762 to 1796. More importantly, this presentation will highlight Catherine's promiscuous behaviors, different lovers, as well as provide an explanation as to why she craved sexual attention.

#### Color Perception, Aggression, and Dominance

Gonnie Ben-Tal
Dr. Rand Ziegler
Behavioral & Health Sciences

The present study was designed to examine a possible relationship between uniforms' color and aggression in a virtual sports environment. Previous research has found that the color red makes individuals more aggressive, while the color blue does not. These effects have been studied in this study.

#### Cords of Memory: The Quipu Project and Testimony in a Digital Age

Meg Detwiler Katherine Soll Humanities

This presentation analyzes the Quipu Project, an interactive documentary that highlights the individual stories of women forcibly sterilized in a campaign to reduce rural poverty in Peru. Connections are drawn between this project and traditional testimonial literature in Latin America.

#### Creation and Chaos: The Death of the Author and the Death of God

Madison Brown
Dr. Nicholaus Pumphrey
History, Culture & Society

Humanities

My presentation engages with Roland Barthes' "The Death of the Author" theory, a staple of Postmodernism, and examines the religious and social contexts of Postmodern literary works. The application and analysis of this theory, and others, will reflect upon the creation and consumption of literature

#### How the Use of Humor with Memes Affects One's Recall

Mykaela Hagen Rand Ziegler Behavioral & Health Sciences

This research examines the effect that meme humor has on a student's recall of information. Results show that the humor in memes can affect immediate recall in a positive way. This could have affects on a student's short term recall of information in the classroom.

## Influencing Fans' Prosocial Behavior Through Corporate Social Responsibility: Utilizing Team vs. Athlete Support

Savannah Bellem
Ron Christian, Assistant Professor, Sports Administration
Business & Economics

This research explored the relationship between team identification, athlete identification, and prosocial behavior in the context of professional sports. Significant correlations regarding likelihood to donate, brand attitude, and perceived altruism and practical implications will be discussed.

#### **KCACTF Tech Team Experience**

Alyssa Glover, Caelan Rogers, Shelbie Corwine, Barry Baker Tom Heiman, Associate Professor of Theatre Music & Theatre

The theatre students at Baker University formed a tech team that dealt with competitions exhibiting each teams' knowledge of technical theatre elements. This year the Baker Tech Team placed second out of eleven teams across the Midwest. The competition helps to prepare them for after college.

#### Midwest Rooted: Regional Influences in Langston Hughes's "The Weary Blues"

Folauhola (Lela) Hautau Dr. Tamara Slankard Humanities

I will expand on recent research regarding Langston Hughes's Midwest roots by engaging with the Digital Humanities and explain how regional influence is represented in the "The Weary Blues," in order to offer a deeper understanding of the blues in relation to African American identity.

#### Optimizing Consumer Decision Making: The Diet Problem Revisited, 2018

Michelle Henry, Jordan Brown, Spencer Brown, Tyler Brown, Austin Halsey, Garrett Howland, Jamaal Rashad, Hannah Remick, Emily Riggs, Taylor Swartzendruber Kevin McCarthy, Professor of Business & Economics
Business & Economics

Students in BS 356, Quantitative Methods for Business Decision Making, reevaluate George Stigler's 1945 diet problem in the context of popular quick-service restaurants (QSR). Students used mathematical linear programming to evaluate five popular QSR menus to find the most cost-efficient daily diet.

#### Parents' opinions on inclusive classrooms

Darby Fugitt

Danielle Hemmingson, Assistant Professor of Biology
Behavioral & Health Sciences

This study looked at the opinions of parents on inclusive classroom settings, specifically for children with Autism Spectrum Disorders. The parents of children in the fourth through sixth grade were given an electronic survey about the topic and their responses have analyzed.

#### **Prime Factorization Game**

Thomas Sharp
Louis Levy
Math, Physics & Computer Science

Defines the different cases of the competitive game where players select prime factors of a selected number attempting to have the product of selection equal the selected number.

#### Roman Waterwheels in Gaul: To Feed an Army

Kwynn Kelly Professor John Richards History, Culture & Society Humanities

Mapping the placement of known Roman waterwheels throughout the Empire has revealed a remarkable concentration of them in Gaul. This paper proposes the waterwheels in Gaul largely functioned to feed the large number of soldiers held at the border of the Roman Empire, particularly along the Rhine.

#### **STEM in Literacy**

Erin Gutierrez
Dr. Charlsie Prosser
Education

Develop a deeper understanding of science concepts by utilizing adapted books, picture books, chapter books, and leveled texts. Specific curriculum links will be explored, plus science/STEM literacy resources for multiple grade levels will be shared.

#### The Effect of Working Memory on Processing of External Stimuli

Brenna Thompson

Dr. Sara Crump, Associate Professor of Psychology
Behavioral & Health Sciences

The purpose of the current study was to analyze the relationship between working memory, specifically comparing low and high working memory, and the amount of external stimuli available for recall.

#### The Impact of Relationships in Diversity Experiences

Maurice Loridon
Charlsie Prosser
Education

Preparing educators to thrive in diverse societies will be shared through multiple perspectives; beginning with a collaborative diversity practicum emphasizing the importance of strong relationships in classrooms, teams, and the community.

#### The Kennedy Center American College Theatre Festival Experience

Destiny Bruno and Tess Cotter
Patti and Tom Hieman
Music & Theatre

We were honored with opportunity to compete in the Kennedy Center American College Theatre Festival Irene Ryan performance competition. The presentation will detail the overall experience of the Festival and a brief performance of one the performance pieces we competed with.

#### The Trees and I

Olivia Hornbeck Professor Marti Mihalyi Humanities

I will be reading a collection of original poetry titled "The Trees and I". This manuscript was accepted by national judging for the Sigma Tau Delta Honors Convention where I was also asked to present the work. The collection focuses on issues I have either witnessed or personally experienced.

#### The Use of Minimization to Elicit False Confession

Sydney Shoemaker
Sara Crump, PhD and Rand Ziegler, PhD
Behavioral & Health Sciences

This study's purpose is to use an interrogation technique, minimization, to elicit false confessions in two conditions: high stakes versus low stakes. Participants are accused of pressing a button on a keyboard or accused of falsifying data. The results of this study are statistically significant.

## Treat Yo Self: A Public Relations Campaign Promoting Healthy & Balanced Lifetsyle for Students

Annie Hanson, Nathalia Barr, Jenna Black, Logan Brettell, Brittney Diehm, Catey Payne
Dr. Laura Young
Mass Media & Visual Arts

The Baker University Public Relations Campaigns Team created a public relations campaign to encourage Baker students to live a healthy, balanced lifestyle during their time on campus. This formal platform presentation will explain all of the components the group completed during the semester.

#### Trouble in the Neighborhood: Black Masculinity in Moonlight

Folauhola (Lela) Hautau Professor Marti Mihalyi Humanities

In this presentation, I will be expanding on the way director, Barry Jenkins, reveals what happens as a result of these imposed "masks" on Chiron and suggests how a desirable black masculinity is often represented in the Academy Award winning film, Moonlight.

#### **Poster Presentations**

#### **Aldehyde Degradation**

Alec Fiest

Dr. Michael Barbush Prof<mark>essor of Chemistry, R. Milford White C</mark>hair in Chemistry Biology & Chemistry

Aldehydes are a notoriously unstable class of organic compounds. Typically they oxidize to form carboxylic acids. A stockroom sample of acetaldehyde was analyzed to determine whether oxidation had occurred. A combination of spectroscopic and chemical tests reveal a mixture of degradation products.

#### Ambien vs Lunesta

Drew Cook, Brett George, Alix Willming, and Victoria Aceves-Power
Dr. Chris Todden
Behavioral & Health Sciences

This study examines the effectiveness of Ambien in comparison to Lunesta in the adult insomnia population. Lunesta is more effective than Ambien in diminishing the effects of insomnia in the adult population due to its longer lasting effect on maintaining sleep and sleep quality.

#### Baby Formula vs. Breast Milk And It's Impact On Physical Development

Lydia Jimenez, Natalie Moussa, Kristina Slayton Christ Todden Behavioral & Health Sciences

Does the consumption of breast milk vs. formula result in an impact on physical development in the future? Infants who were breastfed for their first few months showed preferred patterns of physical development. In conclusion, breastfeeding positively impacts the physical development of an infant.

#### Biofreeze has more effictive pain relief than Icy Hot

Ivan Hollins, Kayla Carter
Dr. Chris Todden
Behavioral & Health Sciences

The purpose of this study was to determine whether Icy Hot or Biofreeze is a better product for topical pain relief in college-aged people. The design of the study is structured around previously found research. Based on the evidence collected, Biofreeze proves to alleviate pain.



#### **Body Mechanics in Relation to UCL Injuries**

Austin Stendebach
Dr. Holt and Dr. Todden
Behavioral & Health Sciences

Discussion: Pitching mechanics includes everything starting from the ground up, specifically looking at lower body mechanics. The hips and lead foot knee were mainly looked at. Arm angle does not have a major impact on injury, but side arm throwing has been shown to have less musculature protection.

#### Breastfeeding vs Formula Feeding Regarding Infant Growth and Development

Kayelee Smith, Megan Milroy, Dalton Dultmeier, Hunter Hanzlick Chris Todden EdD Behavioral & Health Sciences

The purpose of this study is to support breastfeeding over formula feeding in the growth and development of infants. Though formula feeding has its own unique benefits, breastfeeding is still the foremost choice to make for feeding an infant.

#### Comparison of Effects of Soil Acidifiers and Fertilisers on the Regeneration Efficiency of Lumbriculus Variegatus

Kate Taylor-Doran
Professor Erin Morris
Biology & Chemistry

This experiment was done with the intention of determining how L. variegatus organisms are effected by differing levels of acidic pH levels as would be seen in the water run off from agricultural properties where fertilisers and acidifiers are used on crops near expanses of water.

#### **Comparison of Tinder and Bumble**

Hannah Thevarajoo Lowell Jacobsen Business & Economics

In this study, Tinder and Bumble are compared based on projected values, users, and features to decided which app is more profitable. An online search of articles, scholarly and other, was made to create the conclusion that currently Tinder has a larger male based and is more profitable than bumble.

#### **Diversity in French Politics**

Kailani Killebrew Ryan Gibb Humanities

Historically, just like majority of the world's government, French politics have been run by old, white men. Specifically, my research asks, "France has elected more minorities and women, but is that a significant change and, if so, what factors contributed to the change?"

#### **Domestic Nation-Building: Lessons from Iraq in the Homeland**

Danis<mark>ha Turner</mark> Ryan Gibb Humanities

This research focuses on domestic nation building, specifically examining the U.S. involvement in international nation building. The U.S., for years has focused on the world stage and foreign policy while crisis have plagued the 'homeland'.

#### Fish Oil Supplementation Versus Mediterranean Diet Adherence in Post-Myocardial Infarction Patients

Andrew Jones & Benton McCann

Dr. Chris Todden; EdD Director of Exercise Science & Public Health Associate Professor of Exercise Science

**Behavioral & Health Sciences** 

For cardiovascular health in recovering heart attack patients, the health benefits of fish oil supplementation alone were found inconclusive, while adherence to the Mediterranean diet suggests a significant benefit in prevention and recovery.

## Genetic variation of 13- year periodical cicadas collected in populations of Missouri 2011 using mitochondrial gene Cytochrome B (CytB)

Caitlin Hardgrove
Dr. Erin Morris, Biology Professor
Biology & Chemistry

The experiment focuses on Brood XIX of cicadas, the Great Southern Brood. Cytochrome B is a mitochondrial gene that functions as part of the electron transport chain. Cytochrome B was used to look at genetic variation between populations collected in 2011 from Jefferson City, MO and Columbia, MO.

#### Life in Production: Behind the Scenes at a National Convention

Kinsey Ford Randy Flowers Music & Theatre

I was selected to work on a back stage crew for a conference in February. This presentation will show what it's like being behind the camera and stage at a big scale production. Being apart of a stage crew means one has to do several different reoccurring roles, so a performance can go smoothly.

## Lower Limb Amputation and Prosthetic Use: What is the Best Way to Restore a Normal Gait?

Caitlin Apollo
Dr. Chris Todden
Behavioral & Health Sciences

In those who experience full or partial lower extremity amputation, there are many variables that may affect their attempt at restoration of a normal gait through the use of a prosthetic. This review has shown that rehabilitation intervention has a greater effect on the restoration of a normal gait.

## Mental Imagery vs. Virtual Practice: Enhancing Performance in Dart-Throwing Skills

Alexis Korte
Rand Ziegler
Behavioral & Health Sciences

This study examined the effects of mental imagery and virtual practice as performance enhancing techniques in a dart-throwing activity. Participant were randomly assigned to one of three conditions: the control (cognitive task), mental imagery (imagery script), or virtual practice (Wii) group.

#### Organismal diversity within lichens in urban and rural locations.

Daniel Rivera
Dr. Scott Kimball
Biology & Chemistry

This study focuses on organismal diversity within lichens in urban and rural locations in Kansas City, MO, Topeka, KS, and Wichita, KS. Species richness leads to the conclusion that highly polluted lichen environments contain a lower organismal diversity than lichen in rural landscapes not polluted.



# TARDIGRADES OF THE CANOPY: A NEW GENUS FOR ACANTHECHINISCUS GOEDENI (HETEROTARDIGRADA: ECHINISCOIDEA: ECHINISCIDAE) FROM OREGON, U.S.A.

Andrew Moore William Miller Biology & Chemistry

Several specimens of A. goedini were acquired while collecting in Oregon and compared to the paratypes and holotype based on 55 morphological characteristics for the genera. It was concluded that this species doesn't fit into any currently described genus, so a new genus should be proposed.

#### The Consumption of Sweet N' Low Versus Splenda

Dylan Pelland, Bryson Wesley, Esai Gallegos Dr. Todden Behavioral & Health Sciences

We researched the consumption of the sugar substitutes Splenda and Sweet N' Low in middle-aged adults and the sweetener's effect on blood glucose levels. After researching the correlation between the two sweeteners, we concluded that neither has a greater effect on blood glucose levels.

## The Effect of the Paleolithic Diet vs. the FODMAP Diet on the Reduction of Crohn's Disease Symptoms

Gretchen Boxberger, Claire Anderson, Saige McClay Chris Todden Behavioral & Health Sciences

Two diets that reduce symptoms of Crohn's disease were researched. The Paleolithic Diet excludes processed foods while the FODMAP Diet eliminates subgroups. The FODMAP is the better diet in the treatment of CD symptoms due to its efficiency of positive outcomes.

#### The Effects of Doodling and Content Genre on Recall Ability

Logan Pope Dr. Rand Ziegler Behavioral & Health Sciences

This study aimed to determine the effects of structured vs unstructured doodling, when paired with a boring vs interesting audio stimulus, on the ability to recall information.

## The Effects of Texting and Performing a Cognitive Task On a Smart Phone On One's Gait and Ability to Navigate His Environment

Caitlin Apollo
Dr. Chris Todden
Behavioral & Health Sciences

Individuals are constantly attempting to multi-task by walking with their phones in hand and their eyes fixed to their mobile devices. The distraction of a smart phone alters both the time and number of steps taken to complete a walk-through of an obstacle course.

#### The Effects of Time of Day on Performance: Cognitive and Physical

Samantha Mitchell
Dr. Rand Ziegler, Dr. Sara Crump
Behavioral & Health Sciences

The purpose of this original research is to determine the relationship between circadian rhythms and performance. Participants were tested on a cognitive and physical task, each at a morning and evening time. Which time of day they completed first was completely randomized.

#### **U.S. Policies Concerning Refugees**

Brenda McCollum Ryan Gibb Humanities

This research will investigate how the United States is dealing with current refugee crises and why the United States has different policies for different states. Three of the most pressing global crises consist of those in Myanmar, Syria, and Colombia. These will be the center of this research.

#### USA business relations and politics with Saudi Arabia

Kinsey Ford Ryan Gibb Humanities

What policies must firms adopt and what may they eschew to conduct business in contemporary Saudi Arabia? This research engages of Saudi Arabian culture and politics with and compares them to business norms from U.S. national firms.

#### Water versus Sports Drinks for Hydration

Hannah Kelly, Izzy DePinto, Jillian Hardeman
Dr. Chris Todden
Biology & Chemistry

Which is better between water and sports drinks on hydration and recovery in athletes? Based off of research on the topic, there is more evidence supporting water as the best form of hydration-replenishment in athletes where dehydration is a relevant and possibly heath-detrimental issue.

#### Yogurt vs. Kombucha

Evelyn Dubey and Itzel Reyes
Dr. Chris Todden
Behavioral & Health Sciences

The purpose of this research project is to determine whether Kombucha or yogurt has a greater influence on increasing probiotic levels. There is not enough extensive nor conclusive research done on Kombucha to accurately conclude it has a greater influence on probiotic levels than yogurt.