## PLENARY SESSION

*Sancta Alberta Chapel*

04  Brother James Gaffney, FSC, and Faculty
Lasallian Research Grant Panel  *(11 AM-NOON)*

## CONCURRENT SESSIONS

*Academic Building*

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## CREATIVE WORKS

*Academic Building*

- 29  Exhibits  *(1:00-6:00 PM)*
- 30  Performances/Readings  *(1:15-3:30 PM)*

## POSTERS

*Math and Computer Science Wing of the Academic Building and Science Center*

(Posters on display from 12:00-6:00PM)

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## BUSINESS PLANS

*Academic Building*

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69  PRESENTERS LIST
Lewis University is proud to sponsor the Fifth Annual Celebration of Scholarship. Providing an opportunity for the University to showcase the scholarly and artistic work of its graduate students, undergraduate students, and faculty, this annual scholarly event is co-sponsored by the Culture of Inquiry Advisory Committee; the University Office of Graduate Studies; the Colonel Stephen W. and Lyla Doherty Center for Aviation and Health Research; the Lowell Stahl Center for Entrepreneurship and Real Estate Studies; the History Center: Urban, Cultural and Catholic History of the Upper Midwest; the Center for Ministry and Spirituality; the University Faculty Development Committee; and the Scholars Academy.

Brother James Gaffney, FSC, President of Lewis University, will open the Fifth Annual Celebration of Scholarship at the Plenary Session scheduled to begin in Sancta Alberta Chapel at 11 AM. His portion of the keynote presentation will be followed by a panel of Lewis faculty including Dr. Seung Kim, Dr. Ryan Phillips and Dr. Jerry Kavouras, who have received Lasallian Research Grants.

The Lewis University Celebration of Scholarship will present scholarly work in the following formats throughout the afternoon.

**Concurrent Sessions** – Students and faculty will give a 15-minute presentation on a research topic or paper they have written. Concurrent sessions will be scheduled in rooms in the Academic Building from 1:00-6:00 PM. Registration for presenters and information regarding the various Celebration of Scholarship events will be available throughout the day in the hall between the Academic and Science Building.

**Poster Sessions** – Research posters will feature the results of research projects, internships and class presentations. Posters will be displayed in the Mathematics and Computer Science Wing of the Academic Building and Science Center from 12-6:00 PM with the authors present at times as designated in this program.

**Creative Works** – These include any piece that has been written, published or produced in a fine arts field, including music, art, theatre, literary reading, poetry, etc. These exhibits and performances are scheduled from 1:00-6:00 PM in the Academic Building.

**Business Plan Competition** – The annual Lewis University Business Plan Competition, hosted by the Lowell Stahl Center for Entrepreneurship and the College of Business, encourages entrepreneurship among students throughout the Lewis community. The College of Business recognizes that potentially successful business ideas can come from a wide range of disciplines and may originate from an individual or a group of individuals. These presentations are scheduled from 1:00-6:00 PM in the Academic Building.
Dear Members of the Lewis Community:

Welcome to the Fifth Annual Celebration of Scholarship, designed to recognize the scholarly accomplishments of undergraduate and graduate students and of faculty members. Their exhibited academic work has all been completed from Spring, 2015 to the present. This year’s theme is Lasallian Scholarship: Soaring to New Horizons, focusing on the importance of Lasallian Scholarship in promoting our University Mission and supporting the Strategic Plan.

In particular, the Celebration is centered upon the two learning priorities of increased social responsibility and expanded global connectedness. This significant campus-wide event features research, scholarly work and creative projects from more than 350 presenters in various academic fields throughout all four Colleges.

Included are nearly 200 concurrent paper and poster presentations, and there are various creative works being performed or exhibited. These are being displayed in diverse academic settings, including the Academic Building, the Mathematics and Computer Science Complex, and the Science Center. This year, however, instead of having a keynote speaker, the Convocation Committee has invited me to chair a Plenary Session as the introductory activity, with the theme being Promoting Student and Faculty Scholarship through Lasallian Research. Also new in this Convocation is the scheduling of the annual Business Plan Competition, sponsored by the Stahl Center for Entrepreneurship. Awards for the winning undergraduate and graduate student posters will be presented and winners of the Business Plan Competition, will be announced at the Annual President’s Reception, which occurs at the conclusion of this event-filled day. All presenters, mentors and volunteers are invited.

Much praise to those who have been involved in the multitude of initiatives required over many months to ensure another excellent Celebration of Scholarship, including the Office of Graduate Studies and the members of the Planning Committee, chaired by Dr. Joyce Hayward, Professor in the College of Education and Director of Faculty Development, and co-chaired by Dr. Sarah Powers, Assistant Professor of Biology. Many thanks to all who are responsible for generating exceptional scholarly work and extensive research, which have been developed to stimulate new insights that will lead to a better understanding of unexplored potential. I am confident that Lasallian Scholarship: Soaring to New Horizons will be informative, highly engaging, and an impetus for further relevant, creative and scholarly work throughout the University.

Sincerely,

Brother James Gaffney, FSC,
President
Dear Colleagues:

As we once again dedicate a day to recognizing and sharing the scholarly accomplishments of our undergraduate students, graduate students, and faculty, we gratefully acknowledge all who contributed to our 5th Annual Celebration of Scholarship. Having become an important part of the culture at Lewis University, the record number of presentations this year demonstrates the significant contribution of this day in building a culture of inquiry across our campus community. In particular this year, we thank Brother James Gaffney, FSC, our President for the last 28 years, for his consistent support of the scholarly initiatives that are essential to the growing reputation of Lewis University as an institution known for rigor and excellence in the research, scholarly, and creative work of its students and faculty.

Rather than the traditional Keynote Address, this year’s Plenary Session, Promoting Student and Faculty Scholarship through Lasallian Research, builds on our recently launched Lasallian Research Grant Program. Brother James Gaffney, FSC, sponsor of the grant, will provide background on the international Lasallian Research initiative and discuss the significance of students working with faculty on Lasallian research, for the world, Lewis University, and our students. This will be followed by a panel of faculty who received Lewis University Lasallian Research Grants: Dr. Jerry Kavouras, Dr. Seung Kim and Dr. Ryan Phillips. Representative of the many contributions of our faculty across campus, this panel showcases the significance of faculty research in our Mission of promoting student learning through engaging them in the work of generating new knowledge to improve the lives of people around the world who lack access to adequate food, clean water, and quality education.

Each year, planning for this annual event is an ongoing process that begins prior to the previous year’s event and is the result of the dedicated and collaborative efforts of the many faculty and staff that serve on the Celebration of Scholarship Coordinating Committee, on one of the various subcommittees, or in various volunteer capacities during the day. A special thanks goes to Dr. Joyce Hayward, Professor in the College of Education and Director of Faculty Development, who is serving as the 2016 Chair and to Dr. Sarah Powers, Assistant Professor of Biology, who is serving as 2016 Co-Chair and will Chair the 2017 Celebration of Scholarship. As well, appreciation goes to Dr. Nan Yancey, Graduate Dean, who has provided the leadership to guide the development and ongoing success of this annual event dedicated to celebrating the scholarly work of our students and faculty.

Thank you to all who have contributed to the ongoing success and growth of this annual event. The spirit of Association remains evident through the events of the day. Congratulations to all on this significant contribution to advancing our Mission and promoting student learning.

Sincerely,

[Signature]
Dr. Stephany Schlachter
Provost
11 AM – NOON
SANCTA ALBERTA CHAPEL

Welcome
Dr. Nan Yancey, Dean, Office of Graduate Studies

Introduction of Speaker and Panel
Dr. Joyce Hayward, Professor, College of Education; Director of Faculty Development
Chair, 2016 Celebration of Scholarship

Keynote Address and Faculty Panel
Brother James Gaffney, FSC, President, Lewis University

Panelists:
Dr. Joyce Hayward, Panel Moderator
Dr. Seung Kim, Professor, Secondary Education
Project: Diffusing Mobile Technologies in Students’ Learning and Daily Life in Lasallian Universities

Dr. Ryan Phillips, Associate Professor, Aviation & Transportation
Project: Serving Population Growth with the Advancement of Crop Analysis and Precision Agriculture through Economical Data Delivery Methods: Phase I

Dr. Jerry Kavouras, Associate Professor, Biology
Project: Changing Food Webs in Lake Michigan: Dreissena and the Microbial Loop

Audience Questions and Comments
Facilitated by Dr. Hayward

Closing Remarks
Dr. Stephany Schlachter, Provost of Lewis University
The keynote presentation of this year’s Fifth Annual Celebration of Scholarship will be given by the President of Lewis University, Brother James Gaffney, FSC, followed by a summary of scholarly work with a panel of Lewis faculty who are recipients of Lasallian Research Grants. During Brother James’ tenure as President of Lewis University since 1988, many initiatives, such as the Celebration of Scholarship and Lasallian Research Grants, have promoted the research and scholarship of faculty and students in the Lewis University community. Sponsored by Brother James, the Lasallian Research Grant Program aims to promote interdisciplinary, interdepartmental, and inter-institutional collaborations in exploring global issues arising from areas of focus identified by the International Association of Lasallian Universities. Transforming student learning, research collaborations between faculty and students promote initiatives that endeavor to describe or explain phenomena or to predict effects with expected outcomes of advancing understanding, raising awareness, and seeking creative alternatives to intervene, influence, and transform society.
CONCURRENT SESSIONS

(See Presenters Index on Page 70)

07 Session I  (1:15-2:15 PM)
12 Session II  (2:30-3:30 PM)
17 Session III (3:45-4:45 PM)
22 Session IV  (5-6 PM)
Session I
1:15-2:15PM

AS-150-A

Moderator: Theresa Jones

What We See: Positionality in Poetry and Prose
Undergraduate Student Project in Humanities

Carrera Powell

Dr. Jackie White

A short abstract explaining my paper about comparing a poem and a prose piece in terms of periodicity.

“And Don’t Look Back” - A Midrash of Genesis 19: 1-26
Undergraduate Student Project in Humanities

Olivia Larson

Dr. Karen Trimble-Alliaume

A Midrash is a commentary on part of the Hebrew scriptures, attached to biblical text. Genesis 19 describes God’s plan to destroy Sodom and Gomorrah, but spares the family of Lot.

The Real Presence of Christ in the Eucharist
Undergraduate Student Project in Humanities

Austin Soukup

Rev. Daniel Torson

The transubstantiation of the Eucharist is a different concept for most Catholics and non-Catholics to understand. When the Eucharist is consecrated, its reality, essence, and purpose are changed so that Christ is truly present in the bread and wine.
Fredrick Nietzsche’s Influence on Nazi Fascism

Undergraduate Student Project in Social Sciences

Ashley Patek

Dr. Laurette Liesen

There is a great deal of debate regarding how much Friedrich Nietzsche’s philosophy influenced Hitler’s ideology. However, there are several similarities between Nietzsche’s philosophy and Nazi fascism.

Bonhoeffer vs. Hitler’s Reich Church

Undergraduate Student Project in Humanities

Ana Trujillo

Dr. James Burke

This presentation will report on research into the anti-Semitic Nazi ideology which pervaded Hitler’s Reich Church, and the Christian theological critique of it, made by Dietrich Bonhoeffer, a leading Lutheran theologian in Germany during World War II. Although originally a pacifist, Bonhoeffer joined a conspiracy to assassinate Hitler.
Tacrolimus Combination Therapy to Treat Lupus Nephritis

Undergraduate Student Project in Math & Science

Maggie Majcher

Dr. Sarah Powers

Tacrolimus therapy, in combination with either another immunosuppressant or a steroid, is a possible alternative for people with lupus nephritis because tacrolimus is known to produce less cytotoxicity, and as a result limit kidney damage. These combinations have been shown to decrease side effects of other lupus nephritis therapies and possibly even lead to remission of the disease deeming a tacrolimus combination therapy regimen the most efficient and safest option for treatment.

Effectiveness of Treating Bell’s Palsy with Prednisone and/or Antivirals

Undergraduate Student Project in Math & Science

Xaverie Benedict

Dr. Sarah Powers

Bell’s Palsy, a common and spontaneous condition, has many different treatment plans depending on the severity and when diagnosed. Two common treatment options to reduce the inflammation around the nerve are prednisone in combination with acyclovir, or the steroid alone, but it should be evaluated whether addition of the antiviral does help or if prednisone should continue to be one of the only options in treatment of Bell’s.

Allergen Immunotherapy Using Ingestion of Honey to Suppress Allergic Rhinitis

Undergraduate Student Project in Math & Science

Tabitha Ratay

Dr. Sarah Powers

Preliminary allergen immunotherapy by ingestion of honey, a way to expose patients to the pollen from plants associated with allergens, reduces allergy symptoms due to building tolerance from consistent exposure to the allergen. Honey produced by local bees will incorporate the native pollen particles from that area and give the patient a consistent dose per ingestion, effective as a complementary therapy along with standard medications.
Moderator: Dr. James Houlihan


*Undergraduate Student Project in Visual Arts*

**Courtney Dallon**

When beginning each painting, it was very important to me that I chose images that would push the limits of my abilities and represent the subject from a place of strength. My “Girl Almighty” portraits are of women who have gone against the grain and overcome countless obstacles to achieve greatness. They serve as reminder of what these women have accomplished and how they have paved the road for those after them.

**Exploration of Artistic Mediums**

*Undergraduate Student Project in Visual Arts*

**Alexander Turner**

After experimenting with various materials in order to discover and utilize their inherent natural qualities toward making artworks, I will explain my process and findings and exhibit the artworks I created. I will also present a live demonstration of my methods.

**Art and Fear: Moving Some Sisyphian Boulders Strewn on the Path to Visual Art Expression**

*Faculty Project in Visual Arts*

**Dr. Clare S. Lawlor**

Kristin Callahan

Have you ever attempted to take pencil or paint to paper and canvas or do a graphic on the computer and experienced a “freak out” moment—or twenty? Has this fear kept you away from exploring your creative talents? If so, this session is for you! Clare will describe a journey through the “ups and downs” of the art-making adventure pointing out how to succeed navigation of creativity blocks we all experience.
AS-158-A

_Moderator: Dr. Jennifer Roberts_

**Relaxin: A Pleotropic Hormone to Treat Cardiovascular Disease**

*Undergraduate Student Project in Math & Science*

Clayton Shelton  

*Dr. Mallory Havens*

Relaxin is a hormone that has been found to have potential therapeutic effects for various heart and cardiovascular problems.

**Probiotic Therapies for the Protection Against Gastrointestinal Disorders**

*Undergraduate Student Project in Math & Science*

Brenda Zavala  

*Dr. Marne Bailey*

Disorders like irritable bowel syndrome, inflammatory bowel disease and necrotizing enterocolitis currently have no cure. Probiotics may help in the prevention of these disorders or may be possible candidates in development of a cure.

**Disabling Bacteria’s Communication Via Molecular Anti-Quorum Sensing Strategies**

*Undergraduate Student Project in Math & Science*

Mahmoud Affaneh  

*Dr. James Rago*

With the help of Anti-Quorum Sensing molecules, the ability to disable or stall the growth of bacterial colonies, in order to prevent a disease is prevalent in modern medicine.
Session II
2:30-3:30PM

AS-150-A

Moderator: Jane Trainor

Innovative Teaching Strategies for Childcare Staff
Jennifer Guare & Daniel Dispenza
Anne McShane

The purpose of this evidence-based practice project was to develop and implement an interactive memory recall game to enhance knowledge retention of common pediatric illnesses for Head Start staff, and evaluate the effectiveness of the approach.

The Garden of Diversity
Undergraduate Student Project in Social Sciences
Kimberly Voltaire
Dr. Tennille Allen

In this presentation, the findings from a qualitative study at a community center will be presented.
Where is Most Foreign Direct Investment Going and Which Countries are Most Attractive for Foreign Investments?

Undergraduate Student Project in Business

Diego Avalos & Dion Ursino

Dr. Frank Rose

We will analyze which countries have the most Foreign Direct Investment (FDI) and their relationship to the global opportunity index (attracting foreign investment). Our preliminary results are that well established countries would attract the most FDI.

Institutions: The Power Mirror

Undergraduate Student Project in Social Sciences

Andres Mendez

Justin Delacour

Following two world wars in the 20th century, institutions like the United Nations have emerged as a means to promote global cooperation and advance mutual interests. Upon analysis, however, the structures of institutions reflect the global distribution of power and their policies are often contrary to the interests of developing nations.

Strategies Associated with Fouling in the NBA

Undergraduate Student Project in Math & Science

Elliott Nelson, Andrea Jozefat, Kyle Wolak, Erica Correa, Tiana Karopulos & Alyssa Siwek

Zachary Binkley

This project investigates the current intentional foul situation in the NBA, the research that created the intentional foul strategy, and solutions for solving the issue.
Apolipoprotein E: A Genetic Risk Factor for Late-onset Alzheimer’s Disease

Undergraduate Student Project in Math & Science
Joseph Spizzirri

Dr. Sarah Powers

Late-onset Alzheimer’s disease (LOAD) is one of the most common forms of dementia worldwide and is still under investigation. The most significant risk factor, Apolipoprotein E (APOE) E4 gene, has been associated with neural degeneration and the buildup of toxic amyloid plaques in brain tissue of those affected by LOAD.

Sexual Differentiation of Males Not Limited to SRY

Undergraduate Student Project in Math & Science
Maisa Abu-Mallouh

Dr. Sarah Powers

Although the actual pathway for sexual differentiation in 46, XX males is unknown, it has been narrowed down to a few different possibilities. These include SOX9 duplications, SOX3 overexpression, and high doses of Fgf9.
Halloween: Monster vs Man

Undergraduate Student Project in Humanities

Carrera Powell

Dr. Simone Muench

A look at the film “Halloween” and how Michael Meyers’ mask makes us consider whether we choose to see Meyers as a monster or a man.

Commerce vs Art: A Tale of Cinema Purgatory

Undergraduate Student Project in Visual Arts

Miguel Gonzalez

Dr. Simone Muench

This film essay explores the artistic but commercially unsuccessful journey of Richard Williams’ animation film “The Thief and the Cobbler”, which was trapped in production purgatory for 31 years.

Who is the Real Monster?: A Critique of “I Saw the Devil”

Undergraduate Student Project in Visual Arts

Michael Lane

Dr. Simone Muench

This project is an examination of audience identification and the balance between beauty and brutal in the film “I Saw the Devil.”
Pharmacogenetics in Breast Cancer Treatment

Undergraduate Student Project in Math & Science
Victoria Abraham

Dr. Erin Zimmer

The pharmacogenetics in the treatment of breast cancer is my focus. I will be talking about the tyrosine kinase inhibitors, vascular endothelial growth factors, as well as a number of medications paired with therapies in effectively preventing the progression of breast cancer, and in the aid of treatment.

Checkpoint Blockades: Harnessing the CTLA-4 and PD-1 Pathway in Cancer Immunotherapy

Undergraduate Student Project in Math & Science
Hannah George

Dr. Marne Bailey

Cancerous tumors are characterized by their ability to evade the human body’s immune system, however the study of checkpoint blockades as a potential target of cancer immunotherapy has allowed for the harnessing of the Cytotoxic T Lymphocyte Associated Antigen- 4 (CTLA-4) and Programmed Cell Death (PD-1) pathway. The blocking of CTLA-4 will allow for a continued and specific T-cell response towards tumor antigens, while the suppression of the PD-1 molecule will decrease the signal for T-cell death, resulting in sustained activity against tumor cells.

Using Technology to Facilitate Integration of Authentic Research into the Undergraduate Microbiology Laboratory Environment

Faculty Caterpillar Scholar Project in Math & Science
Dr. Marne Bailey & Jeanette Pifer

In recent years, recommendations have been made by many national groups and funding agencies supporting the integration of research into the undergraduate science laboratory environment at a very early stage. At the core of the recommendations are the ideas that early exposure to authentic research experiences helps students to excel in the scientific disciplines and helps increase persistence in study and retention of students in the STEM disciplines.
Session III
3:45-4:45PM

AS-150-A

Moderator: Dr. Lynn Tovar

The Reliability of the Horizontal Gaze Nystagmus Test in Motorists with Pathophysiological Conditions: Is There Truth in the Eyes?

Christine Alessi

Dr. Lynn Tovar

This presentation examines the reliability of the NHTSA’s training program related to Horizontal Gaze Nystagmus.

Freedom’s Converts: Illinois Soldiers Respond to Slavery During the Civil War

Richard Maska

Dr. Mark Schultz

Based on a paper I am giving at the Missouri Valley History Conference in March, this presentation will examine soldiers’ views on slavery as they saw it up close, their interactions with African Americans, and how ultimately these experiences helped convince soldiers of the necessity of emancipation as a war goal.
AS-155-A

Moderator: Br. Pierre St. Raymond, FSC

Historic Preservation Around the Old Joliet Prison

Undergraduate Student Project in Visual Arts

Lexi Austring & Laura Pratt

Dr. Dennis Cremin

In this presentation, we will argue for the importance of looking at local historic preservation, specifically of the old Joliet Prison, through the art of photography.

Milne Family Collection

Alumni Project in Social Sciences

Stephanie Silkey & Skyler Wurst

Dr. Dennis Cremin

The Milne Family donated documents and objects to Lewis University dating back to the 1800s that give insight into Lockport and the surrounding communities. The objects and documents teach students in a different, more engaging way about Lewis’ surrounding past than a textbook would be able to.
Antimicrobial Properties of Bamboo Fibers

*Undergraduate Student Project in Math & Science*

**Penelope Strid**

Dr. Sarah Powers

This project reviews recent research on the antimicrobial properties of bamboo both as a natural fiber and as a blended fiber. Environmentally friendly, antimicrobial textiles will be especially beneficial in numerous settings including healthcare facilities. In addition, the properties of bamboo nanoparticles complexed with metals such as copper and zinc are explored.

Preparation of Functionalized Bamboo Nanocomposite to Increase Fiber Antimicrobial Properties

*Undergraduate Student Project in Math & Science*

**Penelope Strid**

Dr. Jason Keleher

This research explored the functionalization of different bamboo fiber sources with non-toxic silver metal nanoparticle hybrids to enhance their physicochemical and bactericidal properties.

Metal-Organic Framework on Flexible Polymer for Waste Remediation and Water Filtration

*Graduate Student Project in Math & Science*

**Thomas Rickhoff**

Dr. Daniel Kissel

Metal-Organic Frameworks (MOFs) are nanosized organometallic structures composed of metal coordination centers connected by organic linkers in a three-dimensional lattice. The versatility and porous structure of MOFs makes them useful for a wide variety of applications. The work presented here focuses on the synthesis and investigation of copper based metal-organic frameworks on different substrates for use in nanomaterial waste remediation and water filtration.
Moderator: Dr. Deborah Augsburger

### Appropriate Conservative and Surgical Treatment of Rotator Cuff Tears

**Gavin Weir**

Dr. Mallory Havens

This project is an investigation of the characteristics of rotator cuff tears that may indicate the proper course of treatment utilizing conservative management and/or surgical techniques.

### Various Treatments for Osteoarthritis Knees

**Undergraduate Student Project in Math & Science**

**Francisco Navarro**

Dr. Mallory Havens

Osteoarthritis is a joint degenerative disease that often leads to disability. It affects over 27 million Americans.

### Printing Our Future: Medical Applications of 3D Printing Technology

**Undergraduate Student Project in Math & Science**

**Haleigh Saari**

Dr. Mallory Havens

The use of 3D printing technology has expanded into the medical field to produce improved pre-operative planning procedures, prosthetic devices, and human tissues. These 3D printing applications have led to personalized, cheaper, and enhanced healthcare treatment as well as better patient satisfaction and understanding of medical conditions and drug interactions.
The Effects of Grit, Resilience, and Self-Control on the Experience of Anxiety in College Students

Ali Brems, Cailey O'Donnell, Katrina Silacz, Andrea Holm & Paige Cremerius

Dr. Ann Jordan

We investigated the relationship, between three types of coping strategies and the experience of anxiety in college students. The three types of coping strategies are: (1) Grit- the tendency to sustain interest in and effort toward very long-term goals; (2) Resilience- the ability to “bounce back” after a challenge or difficulty; and (3) Self-Control- the regulation of impulses in the presence of temptations or diversions. We hypothesized that individuals who score highly on these coping strategies will experience less anxiety in their lives.

A Losing Proposition: Psychopathology’s Contribution to Obesity in the Bariatric Surgical Patient—the Importance of Post-operative Counseling

Donna Lordi

Dr. Kimberly Duris

Obesity is a complex illness that has several physiological causes, and arguably, there is an exceptionally powerful behavioral component which contributes significantly toward its etiology. This presentation will review several indications of psychopathology that can be combined with obesity, and also elucidate on why post-surgical counseling increases the efficacy of surgical interventions.
Session IV
5:00-6:00PM

AS-150-A

Moderator: Dr. Randy DeMik

The Interaction of Particles with Alcubierre Space-time
Undergraduate Student Project in Math & Science

Sean Lillis

Dr. Ryan Hooper

We present an analysis of the interaction of particles with the Alcubierre warp metric.

A Dark-Box for Very Light Sensitive Devices
Faculty Caterpillar Scholar Project in Math & Science

Dr. Ryan Hooper

This presentation examines the story of the motivation and construction of a very light-tight electronics read-out box for testing light sensitive detectors.

Drug Series: Heroin
Graduate Student Project in Social Sciences

Megan Marcello

Dr. Touwanna Edwards

Heroin use has been an increasing problem among high school students, particularly in the western suburbs. This presentation is meant to investigate heroin use, including the warning signs, long-term effects, and the role a school counselor can play in addressing adolescent drug use.
AS-155-A

**Moderator:** Dr. Tom Bristow

**Exploring Basic Fundamentals of Supervision Models in Counseling**

*Graduate Student Project in Social Sciences*

**Stephanie Pruefer, Jessica Johnson Berrios & Bonnie Hansen**

*Dr. Kimberly Duris*

This project will provide an overview of what supervision consists of and how it benefits mental health professionals. The topic will emphasize the utilization of models to promote professional growth in supervisees as well as professional competency in supervision.

**Therapeutic Approaches in the Treatment of Complex Trauma**

*Faculty Project in Social Sciences*

**Martha Jarmuz**

This project investigates the effectiveness of process-oriented, outcome-oriented, and trauma-specific interventions in mental health counseling for complex trauma.

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**Journey of the Caregiver: Postcards from the H(edge)**

*Faculty Project in Social Sciences*

**Dr. Clare S. Lawlor**

If any of your family members are suffering from memory loss and related thinking problems, this presentation is for you. Clare will describe the journey of the caregiver who experiences the loss of a loved one even though they are still physically alive. Utilizing narrative stories of her family, she will highlight the need for self-care and for connection with other families who are experiencing similar losses. Depression, loss, and hope are integral parts of this presentation.
Oppression of the Dream

*Graduate Student Project in Social Sciences*

**Amy Murillo**

*Dr. Lauren Hoffman*

This work examines the immigrant population through the work of Paulo Freire. It discusses the impact of dominant forces on an oppressed population and offers recommendations to work in solidarity with the undocumented immigrant population in the United States.

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The Intersection of Research and Public Policy

*Graduate Student Project in Social Sciences*

**Christopher Kelly**

*Dr. Natalia Tapia*

Future directions and considerations concerning the role of research in criminal justice public policy will be explored by analyzing research ethics, limitations of knowledge, and past and present instances of such intersections.

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Anxiety and Adlerian Therapy

*Graduate Student Project in Social Sciences*

**Amanda Noe**

*Martha Jarmuz*

This project investigates the use of the Adlerian theoretical approach utilized in mental health counseling for individuals suffering from anxiety.
AS-157-A

Moderator: Dr. Mark Letcher

Developing Successful Leaders Across an Integrated Healthcare System

Graduate Student Project in Nursing

Tiara Brown, Veida Holdman & Deborah Avalos

Dr. Michele Kramer

As a result of the merger of healthcare systems, an organization wanted to evaluate the current state of leadership development in the organization and what leaders need in order to be successful. The end goal was to create a playbook for standardizing leadership development.

Comparing Models of Change: Ideas and Theories

Graduate Student Project in Social Sciences

Dr. Lesley Page & Jacqueline Schoder

Dr. Lesley Page

A comparison and integration of current organizational change models will be explored as they relate to recent trends in transformational leadership.
AS-158A

Moderator: Dr. Pamela Jessee

Would Brexit be the End of the European Union?

Graduate Student Project in Business

Ethiene Narvaez

Dr. Frank Rose

This is a presentation of a research paper reviewing the effects of a Britain exit (Brexit) from the European Union. Britain is taking protective measures to retain its global economic powerhouse; however, will Brexit be the end of the European Union as we know it?

A Design Studio Built on Association

Undergraduate Student Project in Visual Arts

Kendall Dale, Jacqueline Marchildon & Alexander Turner

Kristin Callahan

Members of Red Graphics will discuss the development of a student-run design studio and how the values of association and service have guided them in the creation of this student organization. Additionally, members will speak about the challenges they have faced defining their identity, working with clients and developing a systematic process based in sound design and business practice.

Analytics Oriented Risk Management: Pattern Discovery and Decision Support Vectors

Faculty Project in Business

Dr. Ibrahim Mescioglu

Business professionals challenged by the uncertain nature of competitive industries are increasingly utilizing stochastic risk management processes. This study presents novel analytics approaches for pattern discovery and decision support for such business problems.
CREATIVE WORKS
(See Presenters Index on Page 70)

29 Exhibits (1:00-6:00 PM)
30 Performances/Readings (1:15-3:30 PM)
Exhibit
1:00-6:00PM

ACADEMIC BUILDING HALLWAY
OUTSIDE OF AS-134-A

Nurse Faculty Shared Prayers and Reflections

Faculty Project in Social Sciences

Melanie Obispo-Young, Nanci Reiland, Sandra Razka, Dr. Kathleen Blanchfield, Dr. Linda Ryan & Dr. Gwen Svoboda

Sharing created prayers and reflections gives words to expressions of gratitude, praise, needs, desires, emotions, and to inspiring hoped-for visions. Shared prayer brings people together in faith and in association.
Performance/Readings

**1:15PM**

**The Elegy Poem as a Method to Confront Social and Ecological Issues**

*Undergraduate Student Project in Performing Arts*

**Sarah Ford, Amanda Gieseler & Samantha Gennett**

Dr. Simone Muench

In Intermediate/Advanced Creative Writing, we created transmutations of Aracelius Girmay’s “Elegy in Gold,” a poem of lament for Girmay’s hometown of Harlem, using our own town’s losses as inspiration. As a transmutation poem, we had to respect the original structure of the poem as a method to gain a deeper understanding of the use of imagery through imitation while staying true to our individual voices.

**2:30PM**

**“Sunlight Through an Animal’s Cage”**

*Undergraduate Student Project in Performing Arts*

**Haley Renison**

Dr. Simone Muench

“Sunlight Through an Animal’s Cage” is a fictional piece that explores the depths of domestic violence through an ultimate tragedy.

**3:00PM**

**Metro on a Monday**

*Undergraduate Student Project in Performing Arts*

**Haley Renison**

Dr. Simone Muench

This poem humanizes poverty and brings attention to a common scenario that many witness but few act upon.
POSTERS

(See Presenters Index on Page 70)

33 Session A  (2:30-3:30 PM)
43 Session B  (3:45-4:45 PM)
53 Session C  (5:00-6:00 PM)
1 Mental Illness in America’s Prison System
Undergraduate Student Project in Humanities
Brittany Gorski
Dr. Christie Billups
Severe lack of funding has removed all resources that mentally ill individuals use to actively and positively participate in our society. We need to provide assessments of the social, medical, and clinical needs of inmates and appropriate treatment and services that address mental health in order to justly treat all human beings.

4 Literary Symbolism Shows Our Shared Oppressions: A Comparative Analysis of Hansberry and Vega
Undergraduate Student Project in Education
Amanda Gieseler
Dr. Jackie White
This is a literary analysis of how women writers of color use literary symbolism to question and contend against oppression.

7 Painting the Unspoken Truth
Undergraduate Student Project in Humanities
Stephanie Hernandez
Dr. Jackie White
This is a theoretical literary analysis on Wilfred Owen’s well-known poem “Dulce et Decorum est.” I applied a literary periodicity to my essay.

10 Presentation on Marxist Literary Criticism
Undergraduate Student Project in Humanities
Ashley McCann, Kaileen Beckman & Meghan Starcevich
Dr. Jackie White
This poster details a group project on Marxist Literary Theory in relation to Lorraine Hansberry’s play, “A Raisin in the Sun.”
13 The Power of Postcolonial Theory

Undergraduate Student Project in Education
Julia Mach, Taylor Morgan & Jeff Jurinek
Dr. Jackie White
This poster describes Postcolonial Theory and the breakdown of its literary and historical elements. The poster also relates Postcolonial Theory to classic “Americana” stories, such as “Young Goodman Brown” and contemporary ethnic stories, such as “The Lone Ranger and Tonto Fistfight in Heaven.”

16 Type Me. Print Me. Know Me.

Undergraduate Student Project in Education
Jessica Winterstein
Dr. Jackie White
This paper offers an in-depth look at the piece “Sometimes the Words are so Close” by Julia Alvarez.

19 Nurse Drug Diversion/Addiction and Treatment

Undergraduate Student Project in Nursing
Lisa Simmering
Dr. Gwen Svoboda
Approximately 1 in 10 nurses have an addiction issue. This project developed a brochure to assist nurses in recognizing the signs and symptoms and how to seek assistance from their healthcare facility.

22 Comprehensive Conservation of the Indiana Bat

Undergraduate Student Project in Math & Science
Erin Cox
Dr. Erin Zimmer
In order to achieve effective protection of the federally endangered Indiana bat, Myotis sodalis, a wide range of extensive research must address the many aspects of the species ecology while bearing in mind the growing threats of habitat destruction, climate change, and white-nose syndrome.
Arab Spring Cause and Effect
Undergraduate Student Project in Social Sciences
Mary Huggins
Dr. Steven Nawara
This presentation looks at the causes of the Arab Spring, and its lasting effects on the countries that were involved.

Preventing Amyloid-B Peptide Aggregation
Undergraduate Student Project in Math & Science
Emily Vihnanek
Dr. Daniel Kissel
Production of reactive oxygen species (ROS) by the amyloid beta peptide is a known cause of neurodegenerative disorders such as Alzheimer’s disease. This project focuses on the role of copper in ROS production and ligands that bind to copper, which may be used to prevent amyloid beta peptide aggregation and ROS production.

Multicultural Poetry and At-Risk Students
Undergraduate Student Project in Education
Brianna Harris & Maggie Ciezobka
Dr. Christopher Palmi
This presentation analyzes at-risk students and the decrease of adolescent reading throughout the country today. It provides recommendations for how teachers can encourage students to read more by bringing multiculturalism into the classroom, especially through exposure to multicultural poetry.

Image Thresholding in Computer-Aided Diagnosis
Undergraduate Student Project in Math & Science
Melanie Harrison
Dr. Ray Klump
Image thresholding is the first step in the production of a computer-aided diagnosis system. The creation of a binary image creates regions of interest for further classification.
40 Innovation in Robotics: Microsurgical Applications

*Undergraduate Student Project in Math & Science*

**Erik Medina**

Dr. Charles Crowder

A glove was developed to control a robotic hand fabricated from 3D-printed parts to illustrate the future of microsurgery. The robotic hand will be demonstrated during the poster presentation.

43 Recruitment and Retention of Minorities in STEM

*Undergraduate Student Project in Education*

**Leanna Pitsoulakis & Alyssa Malzone**

Dr. Christopher Palmi

Last year for Celebration of Scholarship, we researched the under-representation of women in the STEM fields. This research made us think about what we could do to help the general perception of these fields and what can be done to recruit and retain more minorities into these fields.

46 Design of a Photocatalytic Biomimetic Nanocomposite for Enhanced Water Filtration

*Undergraduate Student Project in Math & Science*

**Elizabeth Senese, Jeromy Rech & Lisa Janes**

Dr. Jason Keleher

The specific aim of this work is to develop a multifunctional photocatalytic biomimetic nanocomposite membrane that can utilize sunlight to degrade common pollutants, remove toxic metals from the water source, and inhibit the growth of deadly bacteria.

49 Exploring Nanoparticle-Polymer Filtration Interactions

*Undergraduate Student Project in Math & Science*

**Richard Wiencek & Michelle Zaleski**

Dr. Jason Keleher

With the demands of current technology it has become necessary to filter sub-nanometer particles and with this comes the need to probe the nanoparticle-polymer interface.
Conductive, Antibacterial Nanocomposite Fibers for the Application of “Smart” Textiles in Wearable Technologies

Undergraduate Student Project in Math & Science

Jessica Chavez

Dr. Jason Keleher

The emergence of wearable technologies has led to the development of next generation “smart” textiles that exhibit multifunctional characteristics such as electric conductivity, superior fiber strength, and bactericidal capacity. One major research area has focused on the preparation of conducting nanocomposite fibers that can conduct electrical charge via the extended conjugation present within their chemical structure.

Analysis of Normal vs Mutated Cyclin D3 Protein Structure Using Molecular Modeling and Novel Polypeptide Synthesis

Undergraduate Student Project in Math & Science

Courtney Dial & Michelle Fernandez

Dr. Sarah Powers

The Cyclin D3 protein has been observed to correlate with many cancers at an interesting interface when mutated, therefore through molecular modeling and novel synthetic techniques the interface was studied.

The Synthesis, Characterization, and Application of Organic Conductive Substrates for Solar Cell Applications

Undergraduate Student Project in Math & Science

Jordan Shanahan & Zachary Widel

Dr. Jason Keleher

This work details the development of a flexible solar cell anode for alternative energy development.
61 Characterization and Dermal Interaction of Sunscreen Product Nanoparticles in Common Environment

Undergraduate Student Project in Math & Science

Taylor Foytik

Dr. Jason Keleher

The aim of this work is to characterize the absorption of sunscreen chemistry and nanoparticles to simulated skin (bio-polymer based) surfaces in varying environmental conditions. More specifically analysis of the molecular interactions between sunscreen and skin simulated films will be explored using UV/Vis spectroscopy and atomic force microscopy techniques.

64 Synthesis of a Better Curriculum: Organic Chemistry in Brief

Undergraduate Student Project in Math & Science

Lisa Schopper

Dr. Jason Keleher

This project includes creating activities for general chemistry students in order to better prepare them for organic chemistry. Those who have successfully completed organic chemistry will evaluate the activities on the basis of helpfulness, relatedness, and applicability.

67 The Effects of Power and Distance on Wireless Charging

Undergraduate Student Project in Math & Science

Kenneth Kratzer

Dr. Charles Crowder

The effect of increasing power to a wireless system will be compared to its usable distance.

70 The Four Rs of Education

Undergraduate Student Project in Education

Taylor Cochran & Tara Cochran

Dr. Christopher Palmi

Strategies from an Individual Education Program will be explored with a focus on the four Rs, providing strategies that teachers in a regular classroom can implement.
**Anti-Thyroid Medication Targets Treg and Th17 for Treatment of Grave’s Disease**

*Undergraduate Student Project in Math & Science*

**Katherine Quiroz**

*Dr. Sarah Powers*

Graves's Disease, the leading cause of hyperthyroidism, is an autoimmune disorder that results from antibodies binding to TSH receptors, leading to overproduction of thyroid hormone. The three primary treatment options available for Graves’ Disease include anti-thyroid medication such as Methimazole, radioactive iodine and surgery.

**Probability in Sports Wagering**

*Undergraduate Student Project in Math & Science*

**Kurt Becker**

*Dr. Amanda Harsy*

This project will analyze the statistics behind sports wagering, more specifically the point-spread line, as well as how sports wagering impacts the community.

**Estimating Baseball Exit Velocity**

*Undergraduate Student Project in Math & Science*

**Dylan Osterman**

*Dr. Charles Crowder*

Baseball exit velocity is the speed at which the baseball is traveling after being hit by the batter. This project compares the ball exit velocity estimated using a mathematical equation to the actual measured velocity.

**Let’s Get Physical: A Tool to Enhance Mobility in the Inpatient Setting**

*Undergraduate Student Project in Nursing*

**Emily Thomas, Lillie Byrne, Yvette Zuniga, Lexi Pacella & Kaylene Chocola**

*Katherine McDannel*

A group of five nursing students collaborated with clinical faculty and agency staff on a medical-surgical unit of a metro-Chicago magnet level hospital to provide a tool that enhances communication among team members by standardizing the mobility assessment.
85 An Analysis of Lewis University’s Waterprint

Undergraduate Student Project in Business

Thomas Cornes  
Dr. Jerry Kavouras
Water usage data for each building on campus was analyzed in order to determine water consumption habits. Solutions to reduce water consumption by Lewis University were made based on data collected.

91 Interaction of Various Detergent Compositions with Different Surfaces

Undergraduate Student Project in Math & Science

Tala Zubi, Nicole Tangen & Stephen Kurek  
Dr. Jason Keleher
A major area of research has focused on the use of micelles that contain cleaning agents that are control released. Using micelles, an aggregate of surfactant molecules dispersed in a liquid, results as a replacement to typical soaps being used.

94 Cognitive and Social Effects of Over-prescribed Antidepressants in Youth

Undergraduate Student Project in Math & Science

Paige Canino  
Dr. James Rago
This project demonstrates that polypharmacy may have negative effects during early development.

97 Media’s Representation of Ethnic Minorities and the International Community

Undergraduate Student Project in Social Sciences

Luis Angeles & Ahimme Cazarez  
Dr. David Anderson
One concern today is how media portrays diversity and ethnic minorities. Often the media’s stereotypical portrayals influence perceptions of minorities and the international community.
100 Characterization of a Unique Bacterial Isolate from Soil

Lis Hardin & Jenna Chapman

Jeannette Pifer

A bacterium was isolated from a soil sample and was found to produce an antibiotic.

103 A Data Acquisition System for Rigol DS1200 Series Oscilloscopes

Zachary Arcara & Jackson Waters

Dr. Ryan Hooper

With the new framework, statistically significant analysis can be easily performed on a variety of devices including photomultiplier tubes (PMTs) and semiconductor based light detectors.

106 Prevention, Diagnosis and Treatment of Diabetic Ketoacidosis in the Small Animal Patient

Alexandra Finnegan

Dr. Marne Bailey

This poster is intended to outline the latest diagnostic and treatment methods in canine and feline patients to shorten hospitalization time thus decreasing costs to the client. Additionally, we will suggest improvements in the management of diabetes mellitus that would prevent the development of diabetic ketoacidosis in these patients.

109 HIV Infectivity

Anudeep Kommineni

Dr. James Rago

Proteins SERINC3 and SERINC5 have been identified to play a role in stopping HIV infectivity.
Possible Effects of Low-Dose Exposure from Bisphenol A

*Undergraduate Student Project in Math & Science*

**Alexander Elston**

Dr. Marne Bailey

This paper looks at studies and findings from both humans and lab animal experiments and the various effects that come from exposure to different levels of BPA.

Win Probability in MLB Games

*Undergraduate Student Project in Math & Science*

**Nathan Branchaw**

Dr. Amanda Harsy

Over the past ten years, a field called sabermetrics has gained steam not only in Major League Baseball (MLB), but in all professional sports. Sports have become a data-driven industry. Win expectancy (WE) is one of many ways we can try to predict the outcome of a MLB game. In this project, we will explore win expectancy throughout a MLB game, along with the win probability added (WPA) from each player participating in that game. We will also analyze how park factors can give advantages or disadvantages to pitchers or hitters.

Salt Water Purification

*Undergraduate Student Project in Math & Science*

**Nathan Hoffmann**

Dr. Jason Keleher

Cost effective ways to remove sodium chloride from water are investigated.

Intelligent Personal Activity Scheduling

*Undergraduate Student Project in Math & Science*

**Rungkiart Thongsri, Michael Korzon & Joseph Onesto**

Dr. Piotr Szczurek

We present an approach for scheduling activities in a personal calendar by using a constraint satisfaction problem formulation and searching for optimal schedules.

Host Antimicrobial Peptides and Their Anti-Cancer Peptides

*Undergraduate Student Project in Math & Science*

**Urtan Rrahmani**

Dr. Marne Bailey

Certain antimicrobial peptides found in varying organism’s host defense against foreign agents have been found to have selective anticancer properties.
Poetry in Times of Psychological Distress
Kaileen Beckman

My essay explores the way poetry works as a guiding hand for readers during times of psychological distress; through anxiety and grief in particular. I also argue for the continued borderless nature of English Studies to keep poetry and literature relevant.

The New Way to Analyzing Assists
Phillip Leibham

The new way involves the use of charts made through Tableau that display the quality of assists. The assist charts show trends in scoring play, allows for comparison among teams and players, and scouts the other team's location in scoring plays.

Disabilities Do Not Define You
Brittany Russell

This presentation will discuss the use of a survey with student athletes and Best Buddies members in an attempt to explore the possibility of developing one-on-one relationships between the student athletes and the Best Buddies.

Effective Strategies to Assist English Language Learners with Vocabulary in Science
Anna Marek

Vocabulary is a very important aspect in science courses, and can be difficult for students, especially those whose first language isn't English. The purpose of this research is to find strategies that are beneficial for students, especially English Language Learners that also aid in the effectiveness of instruction of vocabulary for teachers.
14 Preparing Teachers for the Diverse Classroom

Undergraduate Student Project in Education
Nicholas Falese & Miguel Silva
Dr. Christopher Palmi

The educational field, like all other fields, is made up of unique and diverse individuals. Teachers and students come from different backgrounds, cultures, and beliefs. It is every teacher’s goal to reach every single student in a manner that can ensure success. It is important for educators to acknowledge the differences in themselves and their students, incorporate such beliefs into the classroom, and prepare students for continuous success in the diverse world in which we live.

17 Promoting Optimal Sedation Practices in a Neuroscience Intensive Care Unit Through Nursing Education

Faculty Project in Nursing
Cynthia Hinojosa

This is a project to evaluate the effectiveness of an education program about sedation and pain medications on nurses’ knowledge and patient outcomes in a Neuroscience Intensive Care Unit.

23 Dispersion of Nanotemplates in Boehmite Sol Gel

Undergraduate Student Project in Math & Science
John Hodul & Zach Struzik
Dr. John Parker

Nanotemplates are a crucial component for the functional molecule retention (for color, flavor, fragrance, or drug) within mesoporous boehmite (AlOOH) sol gel material. The nanotemplates are coated with organosiliane which locally incorporates into a boehmite matrix allowing for retention of various functional molecules. The main issue encountered with these nanotemplates is dispersing them into the sol gel matrix. In this research, different methods of dispersion of nanotemplates were explored in order to determine optimal levels of dispersion that coexist naturally with the desired sol gel properties.

26 High-Speed LED Flasher and Trans-Impedance Amplifier

Undergraduate Student Project in Math & Science
Jesse Hertz
Dr. Joseph Kozminski

I will be building and testing two pieces of lab equipment, a high-speed LED flasher and Trans-Impedance Amplifier to be used in further research efforts at Lewis University.
29 Determining the Success of a Mathematics Major
Undergraduate Student Project in Math & Science
Elizabeth Langland & Dylan Groskreutz
Dr. Amanda Harsy
In this project, we are attempting to find characteristics of math majors and calculus students that led to their success.

32 What’s Powering Lewis?
Undergraduate Student Project in Math & Science
Samantha Bluemer
Dr. Jerry Kavouras
This study overviews the total energy and water consumption habits of Lewis University and seeks to identify future opportunities for conservation.

35 Inquiry-Based Physics Labs
Undergraduate Student Project in Education
Christopher Blogg
Dr. Christopher Palmi
With the new science standards being implemented across the country, new labs are needed to meet their requirements. These labs will be inquiry and hands-on learning based to improve student learning.

41 Gold Nanoparticles for Novel Fingerprinting Applications
Undergraduate Student Project in Math & Science
Nicole Yuede & Kevin Barker
Dr. Jason Keleher
The current methods for on-scene documentation of latent fingerprints have been proven to be inaccurate and often times distort or destroy the fingerprint sample. This work sets out to create a high definition fingerprint film using a novel method utilizing gold nanoparticles as an aerosol in order to characterize the fingerprints without compromising the initial sample.

42 The Synergistic Effect That Semiconductors, Organometallics, and Visible Light Chromophores Have on the Photodegradation of Organic Pollutants
Graduate Student Project in Math & Science
Jacob Murray & Arielle Floyd
Dr. Jason Keleher
The aim of this research is to design a biomimetic photocatalytic nano composite system capable of photodegrading organic pollutants.
47 Synthesis of Nanocomposite Hydrogels and Nanofibers for Wound Management Applications

Undergraduate Student Project in Math & Science
Katherine Wortman-Otto
Dr. Jason Keleher

In this project, we are focusing on hydrogels and how they will help burn victims.

50 Metabolic Competence and Viability of *Pseudomonas* as a Means of Facilitating Bioremediation

Undergraduate Student Project in Math & Science
Mitch Bokowy
Dr. Marne Bailey

Industrial pollution is a growing problem in modern, civilized society. Experiments have shown that *Pseudomonas* bacteria serve as useful organisms for bioremediation efforts and are strong candidates for use in cleaning up industrial pollution.

53 Single Nucleotide Polymorphisms as a Tool for Forensic DNA Phenotyping

Undergraduate Student Project in Math & Science
Emanuel Fuentes
Dr. Sarah Powers

Single Nucleotide Polymorphisms can now be used to identify specific phenotypic traits, with future research pointing to the possibility of identifying individuals based on physical characteristics as predicted by a biological sample containing DNA, such as iris color, skin pigmentation, and hair color.

56 The “Adventures of Huckleberry Finn,” Lighting Design by Adam Jezl-Sikorski

Undergraduate Student Project in Performing Arts
Adam Jezl-Sikorski
Andrew Nelsen

Throughout the months of September and early October, I researched, designed, and hung the light plot for the opening show of the Philip Lynch Theatre’s 40th season, “The Adventures of Huckleberry Finn.”
Parvovirus in Canine Puppies and its Treatments  
Undergraduate Student Project in Math & Science  
LeAndrea Saldana  
Dr. Marne Bailey  
Canine Parvovirus, CPV-2, is a highly contagious virus in canines under 6 months of age, often lethal. A combination of steroids and antibiotics have assisted in the treatment, as well as isolation, to prevent the spread. By studying the virus itself, the medication options that may be used to ease the symptoms or halt the progression of the virus, and the development of the vaccine, it can be determined if there is a more favorable way to approach the virus’s treatment, in hopes of a lower mortality rate in kennels and veterinary hospitals worldwide.

The Synthesis of ZnO Quantum Dots Under Ambient Conditions  
Undergraduate Student Project in Math & Science  
Sam Baker & Samantha Brain  
Dr. Jason Keleher  
In this work, ZnO Quantum Dots were synthesized in an alkaline azeotropic solution under ambient conditions using methanol, ethanol, 1-propanol and 2-propanol as the solvents.

Group A Streptococcal Infections and Autoimmunity  
Undergraduate Student Project in Math & Science  
Caitlin Baltazar  
Dr. James Rago  
Group A streptococcal infections, such as strep throat, can cause extensive damage to the host’s tissues. In some cases, if left untreated, these infections can lead to an autoimmune disease.

Wireless Laser Communication  
Undergraduate Student Project in Math & Science  
Peter Smith  
Dr. Charles Crowder  
This project examines transmitting data and signals via a laser without a solid medium in between.

Othello: A Sympathetic Character  
Undergraduate Student Project in Humanities  
Brianna Harris  
Dr. Christopher Wielgos  
This presentation analyzes Shakespeare’s Othello and how the protagonist is at fault for his own tragic denouement and how audiences are led to believe that he is a tragic hero.
The Mathematics Behind the SET Card Game

Undergraduate Student Project in Math & Science

Michael Smith
Dr. Amanda Harsy

This project will analyze the mathematics behind the card game of SET.

Relationship Between Down Syndrome and Alzheimers Disease

Undergraduate Student Project in Math & Science

Kaitlyn Blount
Dr. James Rago

Down Syndrome patients develop Alzheimers disease-like pathology at a much younger age than normal due to an extra copy of Chromosome 21. Chromosome 21 carries the genes for the amyloid precursor protein and BACE2 enzyme, which are directly implicated in Alzheimers pathogenesis.

Characterization of Photoactive, Nanocomposite and Liquid Crystal Films that Diminish High Intensity Laser Light for Increased Aviation Safety

Graduate Student Project in Math & Science

James Hofmann
Dr. Charles Crowder

This project examines the mitigation of laser attacks on aircraft using solar cells and nanocomposite films.

Therapeutic Strategies for Dystrophic Epidermolysis Bullosa

Undergraduate Student Project in Math & Science

Ashley Arce
Dr. Marne Bailey

Potential gene therapy treatment for Dystrophic Epidermolysis Bullosa is discussed.
**Emojivision: A System for Mapping Facial Expressions to Emoji**

*Undergraduate Student Project in Math & Science*

**David Lucas, Campos Faial, Evan Wunder & Nicholas Biegel**

*Dr. Piotr Szczurek*

We present Emojivision, a facial recognition system that would automatically select emojis based on the facial expression of a user. This system would be useful for people who want to reveal their emotions in real-time without showing their faces in a web chat or a text message.

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**86 The Role of Hedgehog Signaling in Treatment of Basal Cell Carcinomas and Other Cancers**

*Undergraduate Student Project in Math & Science*

**Andrew Macias**

*Dr. Mallory Havens*

This research is a study of the Hedgehog signaling pathway, an important regulating pathway in prenatal development, and its interplay with many cancers including basal cell carcinomas.

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**89 Mycoremediation - An Eco-Friendly Alternative to Traditional Burials and Cremation**

*Undergraduate Student Project in Math & Science*

**Kristin Dykema**

*Dr. Erin Zimmer*

The Infinity Burial Project uses mycoremediation to create a natural decomposition of the human body as an alternative to the toxic chemicals released during embalming and cremation processes.

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**92 The Dimensions of the Refugee Experience**

*Undergraduate Student Project in Humanities*

**Megan Hernandez**

*Dr. Tennille Allen*

This is an ethnographic study of societies’ perceptions of the refugee experience and the realities of struggles that refugees must face.
95 Quadruple Therapy Transition to Primary Treatment Care for *Helicobacter pylori* 
Undergraduate Student Project in Math & Science  
*Manuel Miguel*  
*Dr. James Rago*  
*Helicobacter pylori* the past decade has developed increased resistance towards current treatment methods used. Therefore, alternative treatment methods are required to eradicate infections.

98 Using a Modified Herpes Virus to Treat Advanced Melanoma  
Undergraduate Student Project in Math & Science  
*Katelyn Lanasky*  
*Dr. Marne Bailey*  
A cancer targeting modified version of the Herpes Simplex-1 Virus may be an effective oncolytic treatment option for those with advanced melanoma.

101 Role of Carotenoids in Treatment of Age-Related Macular Degeneration  
Undergraduate Student Project in Math & Science  
*Magdalena Marek*  
*Dr. James Rago*  
Age-related Macular Degeneration is one of the leading causes of blindness but the positive role of carotenoids can have a great impact in preventing progression of this serious disease.

104 Universal Safety is Key  
Undergraduate Student Project in Math & Science  
*Christian Loza*  
*Dr. Charles Crowder*  
This project examines using a universal garage door opener for the intended purpose of police conducting a check of one’s wellbeing.
**107 Comparative Analysis of Latina and Latin American Women Writers**

*Undergraduate Student Project in Humanities*

**Jessica Jordan**

*Dr. Jackie White*

This project presents a cross-referenced analysis of Latina and Latin American women writers who are often doubly-marginalized and confused with one another. It includes an examination of the cultural nuances that distinguish North from South American Hispanic women’s experiences.

**110 Constructing an Atwood’s Machine and a Rubin’s Tube**

*Undergraduate Student Project in Math & Science*

**Kyle Rohde**

*Dr. Charles Crowder*

This project demonstrates the construction of two mechanisms for classroom demonstrations of gravitational acceleration and sound wave properties.

**116 Genome Editing Using CRISPR-Cas9 System to Correct Genetic Diseases**

*Undergraduate Student Project in Math & Science*

**Samantha Urchell**

*Dr. Sarah Powers*

Gene therapy using the CRISPR-Cas9 system has enabled researchers to edit DNA and fix mutations. In the future, this approach can be used to correct a number of human genetic diseases and improve overall health.

**117 Implications of Fecal Microbiota Therapy in Weight Management**

*Undergraduate Student Project in Math & Science*

**Justin Salazar**

*Dr. James Rago*

As the physiological significance of the normal gut microbiota has increased, fecal microbiota transplants have gained momentum as a new and exciting option for treatment. While the full scope of the gut microbiota’s influence on metabolic pathways remains to be seen, fecal microbiota therapy has shown great promise as a weight management therapy.
Type III Secretion Systems, a Target to Combat Antibiotic Resistance

Amanda Stogsdill

Dr. James Rago

Antibiotic resistance is increasing in numbers worldwide. New drugs targeting Type III Secretion Systems in gram-negative bacteria can help reduce resistance.
SESSION C
5:00-6:00PM

3 Do Staff Nurse Perceptions of Nursing Students Change after Implementation of a Written Feedback Form?: A Pilot Study

Faculty Project in Nursing
Stephanie Gedzyk-Nieman & Mary Adams

A pilot study was conducted at a local community hospital utilized for nursing student obstetrics clinical. A student feedback form was designed, and staff nurses were asked to complete the form when they had worked with a student. Attitudes of staff nurses towards nursing students were measured before and after implementation of the form.

6 Glucose Management After Cardiac Surgery

Faculty Project in Nursing
Daisy Sherry, Amy Westbrook, Martha McDermott & Michelle Gobber

This abstract describes our clinical study involving a historical cohort design to examine the change in practice guidelines on patient outcomes.

9 The Drug Series: Phencyclidine (PCP)

Graduate Student Project in Social Sciences
Christopher Eskridge
Dr. Touwanna Edwards

This poster will present an overview of the major effects, signs, symptoms associated with the drug, pharmacological effects, common routes of administration, common street names, and other pertinent information which might be helpful to students in their work with the alcohol and other drug abuse population.
Cyber Terrorism and the Private Sector
Undergraduate Student Project in Business
Kaileen Beckman
Dr. Faisal Abdullah
The threat of cyber terrorism is already recognized by governments and militaries across the globe, but the key force in the fight against cyber terrorism, the private sector, is just waking up to the reality of the problem. However, the private sector is key to the fight against cyber terrorism as the private sector holds knowledge about the nature of these attacks that will allow society to more effectively and efficiently respond.

On Security of Off-the-Shelf Medical Devices
Graduate Student Project in Business
Mythreyi Murali
Dr. Safwan Omari
The Internet of Things refers to the increasingly expanding list of devices that are connected to the Internet. Once configured with an IP address, these devices become accessible and susceptible to remote attacks. Connected medical devices are of particular concern due to the fatal consequences of a malicious attack. In this project, we report on our experiences and lessons learned from the security assessment of a PCA Hospira Infusion Pump that was bought on ebay.com. Based on our security analysis, the pump suffers multiple vulnerabilities due to an outdated software. These vulnerabilities could result in fatal consequences. Steps and recommendations to help mitigate and avoid these risks will be presented.

Trauma Nurse Orientation with Rapid Cycle Deliberate Practice (RCDP)
Graduate Student Project in Nursing
Corinne Sadecki-Lund
Dr. Kathleen Fitzgerald
Rapid Cycle Deliberate Practice (RCDP) provides an innovative approach to Trauma Nursing Orientation that may develop an increase in not only knowledge but confidence and comfort in multidisciplinary team care.
Domestic Violence and Childhood

Graduate Student Project in Social Sciences

Biljana Naumovski, Aleksandrea Pahlman, Tanya Brown & Angelina Rotar

Dr. Katherine Helm

This poster will discuss the outcomes of domestic violence experienced in early childhood. Specifically, this presentation will explore and review the research on possible effects of domestic violence and abuse during childhood.

Reducing Medication Use for Dementia Behaviors

Graduate Student Project in Nursing

Christine Blake

Dr. Stacie Elder

This is a research proposal aimed at investigating how to decrease the frequency of medications used to treat behaviors in long term care dementia residents.

Evaluation of an Undergraduate Peer Mentor Program

Graduate Student Project in Nursing

Erin Gee, Andrea Paladino & Rubie Costales

Dr. Janice Smith

A comprehensive literature review indicates that peer mentoring has positive effects on retention and student-perceived support. A retrospective study was designed to evaluate the effectiveness of the CONHP’s Peer Mentorship Program with regard to GPA, retention, and student-perceived support. A Survey Monkey, containing the Mentoring Functions Questionnaire (MFQ-9), was distributed to obtain data on perceived support as a result of participation in the Peer Mentorship Program. Additionally, GPA and retention data of program participants was compared to all CONHP undergraduate nursing students. Collected data will be analyzed to determine appropriate recommendations for the enhancement and expansion of the Peer Mentorship Program.
27 Rape Culture on College Campuses

Graduate Student Project in Social Sciences

Lauren Mock, Despina Stathopoulos, Mackenzie Fisher & Devin Browning

Lisa Brown

An exploration of rape culture on college campuses and techniques to alleviate the stigmas surrounding victims of such violence.

30 Acculturation Effects on Migrant Children

Graduate Student Project in Social Sciences

Lauren Iuliano, Kellie Marcus, Yadira Cisneros & Yessica Ocampo

Lisa Brown

This project explores the acculturation of immigrant children and its effects on mental health. It discusses how cultural stereotypes influence behavior.

33 Heroin Epidemic in DuPage and Will Counties

Graduate Student Project in Social Sciences

Abby Lauer, Anna Dusza, Shawna-Joy Ogunleye & Monika Dlugopolski

Lisa Brown

The purpose of this project is to expose the heroin epidemic in DuPage and Will Counties among the youth and young adult populations.

34 Mindfulness-Based Interventions with Borderline Personality Disorder

Graduate Student Project in Social Sciences

Marissa Vogrin, Michelle Purri & Sarah Pawlak

Dr. Kimberly Duris

This research project focused on the use of mindfulness-based interventions specific to the population of Borderline Personality Disorder. Dialectical Behavior Therapy was explored in its relationship to the treatment of Borderline Personality Disorder and its integration of mindfulness-based approaches.
36 Synthesis and Characterization of Functionalized CdS-QD Polymeric Nanocomposite Films to Mitigate Laser Attacks on Commercial Aircrafts

Graduate Student Project in Math & Science

Samantha Brain
Dr. Jason Keleher

CdS-QDs in the presence of Phenol Red, Fast Green, and Methylene Blue have effectively absorbed blue/purple laser light and decreased resultant fluorescence of the QDs. The incorporation of these donor and acceptor molecules into a polymeric windshield coating allow for the successful mitigation of laser intensity.

38 Supervisory Roles and the Effects on Supervisees

Graduate Student Project in Social Sciences

Sarah Pawlak, Marissa Vogrin, Kathleen Zapotoczny, Megan Ramel, Alexa Cairo & Jennifer Lagowski

James Morris III

This poster will examine the many roles of a clinical supervisor and how each role is used.

39 Literacy Strategies Used to Increase Student Understanding in the Science Classroom

Graduate Student Project in Education

Krystyn Misheck
Richard Clish

Science literacy is the knowledge and understanding of scientific concepts and processes in which a person can ask, find, or determine answers to questions derived from curiosity about everyday experiences. The purpose of this research is to identify various literacy strategies that can be used to increase student understanding in the science classroom.
Influences of Gender, Bias, and Other Related Issues in Clinical Supervision

*Magen Lutz, Salem Al-Salem & Joanna Turner*

*Dr. Kimberly Duris*

This research looks at various studies that observed how biases held by either a supervisor or supervisee can influence the efficacy of producing beneficial feedback for increased clinical competency and treatment strategies. Some of the biases observed involved multicultural issues, gender, and physical characteristics, such as attractiveness and what factors they may have within a supervisor-supervisee relationship.

Literacy Practices in the High School Science Classroom

*Tiffany Albers-Lopez & Michelle Gaj*

*Dr. Lauren Rentfro*

This poster presents the research, design and implementation of different literacy practices in a secondary science classroom.

Vocabulary Instruction

*Kevin Dorenkamper, Christopher Blogg & Tiffany Albers-Lopez*

*Dr. Lauren Rentfro*

The purpose of the research is to find and produce effective learning strategies for students in the sciences to learn vocabulary through the use of games, activities and other beneficial ways of communication. Science vocabulary will be adapted into numerous strategies in order to grasp the content material the most effective way. By incorporating games and activities for vocabulary instruction, students will develop literacy strength within science content areas.

The Drug Series: GHB

*Angelina Rotar*

*Dr. Touwanna Edwards*

GHB, which was originally used as an anesthetic in the 1960s has been abused by individuals due to its significant side effects. The drug acts on the central nervous system as a depressant producing many harmful effects.
Test Anxiety in Schools
Graduate Student Project in Education
David Church & Kevin Michaels
Lee Harsy
This project looks at identifying and coping with test anxiety in schools, including finding causes, symptoms, and solutions.

Exploring the Film Formation Effects of Complexing Agents Relevant to Metal Chemical Mechanical Planarization
Graduate Student Project in Math & Science
Amy Mlynarski & Hafsa Khan
Dr. Jason Keleher
Chemical Mechanical Polishing (CMP) has emerged as a critical technology for achieving global planarization of substrates used in advanced technologies such as integrated circuits and data storage media. This research investigated the key film formation reactions that occur at the slurry/substrate surface using electrochemical techniques.

Cross-Linking of Alumina Boehmite Sol-Gel
Undergraduate Student Project in Math & Science
Zachary Struzik & John Hodul
Dr. John Parker
Various techniques for cross-linking alumina boehmite sol-gel were implemented. Nanotemplates were then inserted with cross-linking reagents.

Ethics in Supervision
Graduate Student Project in Social Sciences
Biljana Naumovski, Stephanie McKenzie & Tanya Brown
Dr. Kimberly Duris
This poster will examine some of the risks involved in taking on a supervisee in the counseling field.

Social Media Negatively Affects Adolescents
Graduate Student Project in Social Sciences
Lauren Mock, Laura Miran & Ashley Heis
Dr. Katherine Helm
This project examines the relationship between social media and adolescent depression. It looks at how narrative therapy has a positive effect on adolescent depression.
Effective Use of Developmental Models in Supervision

*Graduate Student Project in Social Sciences*

**Gabriela Sanchez, Donna Lordi & Dipa Patel**

**Dr. Kimberly Duris**

Many different models and theories are used during a supervisory process in clinical supervision. The development model allows supervisors to monitor supervisees based on the supervisee’s level of experience, counseling competency, and skill sets.

Dual Relationship in Clinical Supervision

*Graduate Student Project in Social Sciences*

**Alexis Atkins, Katie Cornyn, Karen Hild & Jaclyn Vittorino**

**Dr. Kimberly Duris**

A dual relationship is a situation where multiple roles exist between a clinical supervisor or therapist and a supervisee or client. Some dual relationships between supervisees and their supervisors are ethical while some are not. This presentation explores the differences between appropriate dual relationships and inappropriate dual relationships within the supervisory relationship.

Helicopter Parenting and the Effects on College Students

*Graduate Student Project in Humanities*

**Stephanie Coccaro, Monika Leja, Katelyn McNellis & Michael Schuetter**

**Dr. Katherine Helm**

Over-parenting, or helicopter parenting, involves the application of developmentally inappropriate parenting tactics that far exceed the actual needs of adolescents and emerging adults. The purpose of this presentation is to examine the consequences of over-parenting or “helicopter” parenting and the effect it has on the child’s development, attachment style, and adjustment into adulthood.

Trauma Experiences and Treatment Options

*Graduate Student Project in Social Sciences*

**Heather Parkins, Ashley Castelo & Sinar Steele**

**Martha Jarmuz**

This presentation explains how four different theories have showed great success in treating trauma.
EB-5 Investor Program: Economic and Social Implications in the U.S. and Worldwide

Kathleen Giblin

Dr. Frank Rose

This research project explores the economic effects of the EB-5 investor program both in the United States and worldwide. The project also takes into consideration the social justice implications of this program that targets immigrant investments of $500,000 or more in exchange for U.S. immigration status.

Strategically Using Music as an Instrument for Enhancing Teaching in English Language Arts Classrooms

Hayley Rife & Joseph Laraia

Dr. Christopher Palmi

This presentation will focus on the effect that music has in the classroom. Research on the effect of various genres of music on classroom learning will be analyzed, in order to arrive at a conclusion on whether or not music aids learning.

The Effectiveness of Distress Tolerance with Adolescents in Counseling

Alexa Cairo, Matthew Caston, Donna Lordi & Sinar Steele

Dr. Katherine Helm

This project highlights the efficacy of counselors implementing distress tolerance within adolescents.

The Future of History: Digitizing the Past

Tyler Cosich

Dr. Christopher Palmi

A presentation of the potential of technological resources in the social sciences classroom, and an examination of the various applications within any social studies curriculum.
Models and Theories of Clinical Supervision in Mental Health Counseling

Graduate Student Project in Social Sciences
Sarah Abbas, Heather Parkins, Aleksandrea Pahlman & Ashley Dotson

James Morris III

This presentation is an exploration of several models of clinical supervision in the field of mental health counseling.

To Be or Not to Be: End of Life Decisions

Graduate Student Project in Social Sciences
Alexa Cairo, Nicole Carpenter, Magen Lutz, Sarah Pawlak & Niesha Cory

Dr. John Jurowicz

The current presentation is an attempt to determine if a counselor would be bound by the duty to protect a client from risk of harm to self, or if this is an example of when the American Counseling Association (ACA) Code of Ethics states that the counselor would have the right to maintain confidentiality.

Violence in Lesbian Relationships: A Study of Cause, and Possible Solution

Graduate Student Project in Social Sciences
Cedelle Kupfer-Escobedo

Dr. Tracey Nicholls

This study explores the ways in which domestic violence in lesbian relationships, resembles, and differs from, domestic violence patterns in heterosexual relationships.

The Use of Backward Design in the School Counseling Curriculum

Graduate Student Project in Education
Michael Jerger

Lee Harsy

Backward Design is a method commonly used by teachers to help them develop strong lesson plans by first identifying the desired results of the lesson, and then planning the instruction. However, Backward Design is also very effective in designing school counseling programs and lessons, as it maintains a focus on what counselors want students to learn from such programs (as well as a focus on using assessment results for future data-driven instruction).
108 Factors Affecting Attrition in Graduate Nursing Programs

*Dr. Suling Li*

This poster is a review of the literature that examines various reasons why attrition may occur in graduate nursing programs.

113 TF-CBT vs EMDR

*Graduate Student Project in Social Sciences*

*Monika Dlugopolski, Lisa Brown*

The main premise of the presentation is to look at two therapy options for children who suffered childhood abuse. The presentation focuses on causes and prevention options to help educate and decrease occurrence.
BUSINESS PLAN

(See Presenters Index on Page 69)

65 Session 1 (1:15-2:15 PM)
66 Session 2 (2:30-3:30 PM)
67 Session 3 (3:45-4:45 PM)
68 Session 4 (5-6 PM)
Session 1
1:15-2:15PM

AS-132-A

Moderator: Kristin Burton

The Campus Closet
Undergraduate Student Project
Laura Fox
Tess Osely
A mobile application that allows college students to buy and sell gently used clothing items.

McClimb Studios
Undergraduate Student Project
Jacob McVey
David Glass
A gym that combines the sports of bouldering (a popular type of rock climbing) and Ninja Warrior.

Weddings by Hannah
Undergraduate Student Project
Hannah Taylor
Kristin Burton
Nationally recognized wedding planning business focused on creating valuable relationships between clients and event planners.

Change U
Graduate Student Project
Kathleen Giblin & Erin Walsh
Tess Osely
A company dedicated to advancing the financial lives of college students through an interactive social media savings program. Change U will help college students become more fiscally responsible and save money in ways they would have previously not thought possible.

Ethan Sweeney Insurance and Financial Services Inc
Undergraduate Student Project
Ethan Sweeney
Patrick Wilder
Advise clients on personal and business insurance decisions by accessing all State Farm Insurance policies and practices. In addition to insurance I will consult clients on personal finances such as retirement information, college savings, and life insurance options.
Session II
2:30-3:30PM

Moderator: Kristin Burton

Transparent
Undergraduate Student Project
Castillo Abdel
Richard Burke
A software program that converts handwritten/erase board notes to a Microsoft Word document

Warren Sharpe Community Self Sustainability Plan
Undergraduate Student Project
Lauren Grady
Nadine Roy
This is a community garden which grows food to feed the less fortunate families in Joliet, as well as sells fresh produce to local consumers. The end goal is to help facilitate a safe community, where the kids feel safe, healthy, and happy and also satisfied with the environment for generations to come.

Sweas Fitness
Undergraduate Student Project
Siddhesh Shah
Dr. Jeffrey Trask
A gym for the people who are dedicated and committed to fitness but who are unable to find the perfect gym.

RehabilitatElectronics
Undergraduate Student Project
Christopher Brown
Dr. Jeffrey Trask
The company consists of multiple levels of operations. First, it is a retail store that sells new and refurbished electronic items. Secondly, the company also has a tech support division.
Session III
3:45-4:45PM

**AS-132-A**

*Moderator: Kristin Burton*

**Junk Control**
*Undergraduate Student Project*

**Diego Avalos**

*Wayne Marth*

A company providing junk removal services for homes and businesses in the Chicagoland area.

**Specialty Coffee Importer**
*Undergraduate Student Project*

**Lyela Mutisya**

*James Pisani*

This is a Coffee Importer which imports coffee from Kenya to the U.S. We have a social focus by donating proceeds to support animal rights and protection.

**Pocket Closet**
*Undergraduate Student Project*

**Kendall Dale**

*Kristin Callahan*

A mobile app and barcode system that catalogs personal wardrobe information while partnering with clothing companies to promote their brand.

**Protein Paletas**
*Graduate Student Project*

**Gianni Davila**

*Patrick Wilder*

Manufacturing protein ice cream fruit bars that are 100% natural, and distributing them wholesale to various markets.

**The Celebration Connection**
*Undergraduate Student Project*

**Danielle Vitagliano**

*Peter Longo*

A monthly subscription for decorations to people of all ages provides the supplies needed to celebrate any occasion!
Session IV
5:00-6:00PM

AS-132-A

Comfort Express Hotel
Undergraduate Student Project
Alfred Chan, Connor Ritzi & Arthur Chan

Chris Miller
This is a company that aims to take advantage of idle and unused college dorms across the U.S. during the summer months. This service is not intended to create a five star experience. It is designed for customers who are looking for a cheap and convenient place to stay.

Global Grant Services
Undergraduate Student Project
Mwikali Munyao
Terry Arya
This is a grantwriting and consulting company that assists students, prospective business owners and current business owners on attaining and qualifying for grants that would advance their careers.

Workout Grip
Undergraduate Student Project
Dion Ursino
John Sonday
A new product designed to protect hands from calluses. Also, it provides for extra grip strength and has an ergonomic design.
Business Plan Presenters

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<td>Yuede, Nicole – 45</td>
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<td>Z</td>
<td>Zaleski, Michelle – 36</td>
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<td>Zapotoczny, Kathleen – 57</td>
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<td>Zavala, Brenda – 11</td>
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<td>Zubi, Tala – 40</td>
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<td>Zuniga, Yvette – 39</td>
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