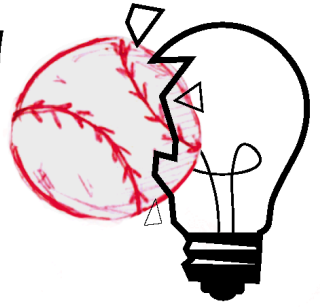
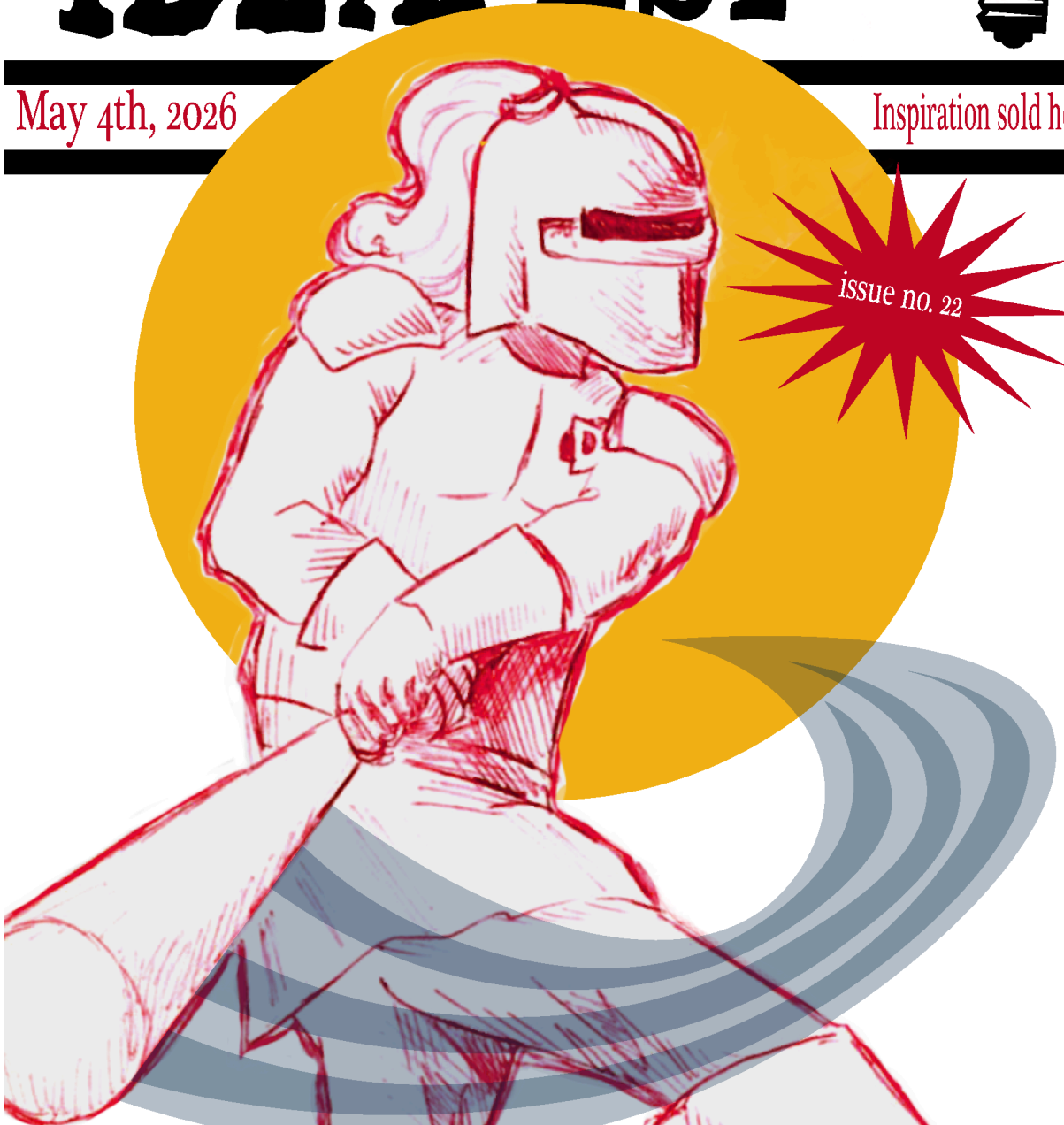


IDEAFEST



May 4th, 2026

Inspiration sold here!



issue no. 22

Acknowledgements

*Without Dr. Paul Fessler's vision and advocacy, IdeaFest would not exist. Under his direction, what began in 2004 as a celebration of student academic work has grown into an annual event bringing the Dordt Campus community together across disciplines. On behalf of the students, staff, and faculty at Dordt University, we would like to thank Dr. Fessler for his leadership over the past 20+ years. **Thank you Dr. Fessler!***

Classroom Moderators

*Jenni Breems
Tom Clark
Erik Hoekstra
Ben Saarloos
Leendert van Beek
Mark Volkers*

Research + Scholarship Council

*Marissa Chesser
Scott Culpepper
Geoffrey Fulkerson
Jason Ho
Josh Hollinger
Jeremy Hummel
Angela Kroeze Visser
Robert Lancaster*

Program Design

Gabi Micheel

Schedule of Events

12:30-3:30pm | Posters on Display in the Science Building Atrium

12:30-1:15pm | Poster presenters available

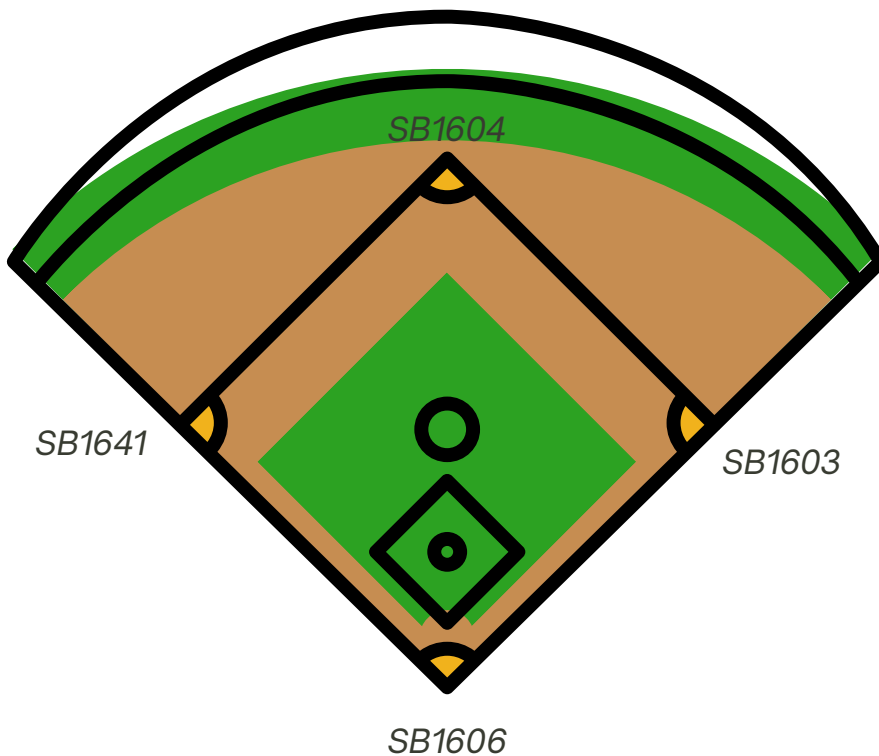
1:30-3:30pm | Classroom Presentations | SB 1603, SB 1604, SB 1606, SB 1641

Refreshments served near the Natural Sciences Office from 12:30-2:00pm

Presentation Schedule

	Science Building - 1603	Science Building - 1604	Science Building - 1641	Science Building - 1606
1:30	Imago Dei Across Borders Madison Thomsen	The Pain and Promise of the Publishing Process Nia Hoekstra	Braille Music Paul Ophoff and Nathanael Wilcox	7th St NE Corridor Enhancements AJ Goetsch, Ellie Janda, Marco Laenen, Sam Eppinga, Kyle Wellen
1:45	Nursing in a Globalized World: The Importance of Studying Infectious Diseases Petra Heinze	The Language of Marketing Hannah Cox	Head to Head: When Rivalries Work Parker Freeman, Marcus Seifert	Gaming Guild Cameras Bennet Van Surksun, Ezekiel Blankenship
2:00	Rain Kayla Prell	A Defense of Mathematical Platonism Adam Rauwolf	BEHOLD Reghan Brown, Simon Stoltzfus	Prosthetic Connector Redesign Victoria Granda Benavides, Brock Spade, Garrett Hoogendoorn, Luke Swanson, Michael O'Neill
2:15	Márquez's and Lorca's Scenes of Death David Copley	The House of Ministry: A Holistic Approach to Outreach and Local Missions Julia Love	ChatGPA Sydney Reyes, Mackenzie Gossman	TEC Expansion Canopy Dylan DeMey, Grady Burkhart, Will Gutzmer
2:30	Structural Properties of Ant-Excavated Trees Maya De Jong, Aidan Kraft	Healing Doesn't Have to Come - A New Perspective on the Church's Attitude Toward Disability Tessa Boersma	Minimize Me Zachary Rupp, Chris Tamisiea	Turret Paint & Transfer Cart Alex Niemeyer, Jenna Oppendyk, Sierra Pirkey, Danilo Ortiz
2:45	Historic Horror: The Poetry of Baudelaire and Its Impact on Modern Horror Isaiah Ives	Law's Forgotten Element: Plato & Rawls Trygve Bulthuis	Sola Philip Goetz, David Condor, Libby Baneline	Listening and Learning At the Chalmers Center for Economic Development Gracie Campbell
3:00	Syncretism Across Latin America Billy Varble	A Christian Analysis and Proposal for the American Food System Brady Van Meeteren, Willem Kimm	Golden Work Jackson Visscher, David Wibowo	Half the population, half the attention: Understanding (and solving) the gender health gap Annika Visser, Jenny Lumkes, Katie de Gier
3:15	Comparing the Emotional Weight of Change in Literature Addison Essebaggers	Observing Cosmic Muons: From Portable Detectors to Modern Particle Physics Experiments Elias Obbink	Music Production & The Art of Perseverance David Condor	Rock Valley Floodplain Restoration Plan Beatrice Shackelford, Blaze Van Noord, Adalie Kamerman, Marijika Bakker

Abstracts



Imago Dei Across Borders

Madison Thomsen

Faculty Sponsor: Professor Doornbos

This project explores how Christian theology can inform contemporary immigration policy and legal advocacy. Drawing from the Reformed theological tradition, including the concept of the Imago Dei and the call to hospitality toward the stranger, this work examines the relationship between justice, law, and Christian responsibility. It considers how faith can guide ethical engagement with immigration policy, particularly through the work of immigration lawyers and Christian communities. The project proposes a theological framework for just and compassionate responses to immigration and offers practical recommendations for Christian engagement in policy and practice.

Nursing in a Globalized World: The Importance of Studying Infectious Diseases

Petra Heinze

Faculty Sponsors: Professor Shinde & Professor Kleinwolterink

Last semester, I did an independent study researching the epidemiology and treatment options for many neglected tropical diseases (NTDs). Awareness of the symptoms, risk factors, prevention, diagnosis, and treatment for these diseases is low in comparison to their prevalence. The main reason for this is that these infectious diseases, caused by parasites, fungi, viruses, or bacteria, have the highest infection rates in countries which lack well-developed healthcare systems and access to treatment. Even in America, nurses need to have an understanding of what patients with diseases like malaria, tuberculosis, trypanosomiasis, HIV/AIDS & associated infections, and parasitic worms may present with.

Rain

Kayla Prell

Faculty Sponsor: Professor Ter Haar

Rain is a play I have been writing and developing over the past two years. Rain is a play about what it is really like to have anxiety. Not the "I'm just feeling anxious" kind of anxiety - though that is just as valid, but the kind that sometimes leads to panic attacks. As someone who has been struggling with anxiety the past four years this show means a lot to me. I am trying to show others what it is like to have anxiety so severe that it impacts your everyday life (it is not something someone can just stop feeling).

Márquez's and Lorca's Scenes of Death

David Copley

Faculty Sponsor: Professor van Beek

A brief examination of the depiction of death in Gabriel Garcia Márquez's story "Death constant beyond Love" and Federico García Lorca's "Lament for Ignacio Sánchez Mejías."

Structural Properties of Ant-Excavated Trees

Maya De Jong and Aidan Kraft

Faculty Sponsors: Professor Ploegstra and Professor Vander Werff

Carpenter ants are among one of the most common pests found in the Midwest and are often blamed for structural damage found in trees. While it is true that they excavate galleries in several urban trees, this activity almost always occurs in wood that has already been compromised by moisture or fungal decay. This project investigated the structural impact of carpenter ant activity by examining whether their excavations significantly weakened trees or if they helped by clearing decay and removing excess limb weight.

Historic Horror: The Poetry of Baudelaire and Its Impact on Modern Horror

Isaiah B Ives

Faculty Sponsor: Professor Van Beek

This presentation will explore the French poet Baudelaire's poems "A Carcass" and "The Flowers of Evil," specifically focusing on the use of horrific imagery within them. Baudelaire was among the first of the "decadent" poets, using classical writing techniques to describe "forbidden" topics such as sex, death, and decay. These themes have a serious connection to modern horror literature, and by connecting Baudelaire's poetry to horror, we can develop a deeper understanding and appreciation for the genre.

Syncretism Across Latin America

Billy Varble

Faculty Sponsor: Professor Brons

Syncretism is a simple, yet deeply cultural phenomenon that has occurred in Latin America for centuries. While it can be very subtle and invisible to those who live in it and can't see it, it effects how people see God and Religion as a whole — and thus can become a salvation issue. In my presentation, I will give a definition of the term "syncretism", give examples as to what it looks like, and why it is important to know what syncretism is.

Comparing the Emotional Weight of Change in Literature

Addison Essebaggers

Faculty Sponsor: Professor Van Beek

Compare and contrast the journeys of immigrants or displaced people through two literary works. Both authors of *Salt to the Sea* and *These Are the Names* convey heavy emotional weight and the lengthy journey of those leaving their home countries.

The Pain and Promise of the Publishing Process

Nia Hoekstra

Faculty Sponsor: Professor Vermeer

Having completed an independent study on cognitive reserve theory in preclinical Alzheimer's disease, publication was the next logical step. Many sources required reformatting, rewriting, editing, and eagerly awaiting disappointing emails. What criteria should authors have in mind before even starting a public facing project? What does the publishing process look like from an undergraduate author's perspective?

The Language of Marketing

Hannah Cox

Faculty Sponsor: Professor van Beek

This presentation is the culmination of a cross-disciplinary individual study on the interactions between marketing and linguistics. It combines research in the linguistic field of semiotics with real-world examples of advertising, concluding with tips and tricks applicable to anyone studying or working in marketing.

A Defense of Mathematical Platonism

Adam Rauwolf

Faculty Sponsor: Professor Janssen

I will explore definitional and axiomatic discrepancies that warrant the epistemological argument against mathematical Platonism. I will suggest a return to ancient metaphysical accounts to solve the problem of inefficacy.

The House of Ministry: A Holistic Approach to Outreach and Local Missions

Julia Love

Faculty Sponsors: Professor Doornbos & Professor Brons

The million-dollar question in missions and ministry seems to be “How do you balance word and deed?” This presentation will use the image of a house to reflect on my internship experience at Maria Magdalena. Reflecting on the church's local initiatives, I hope to encourage everyone to ask how we can better connect the programs already in place in our own churches to balance word and deed without forcing one or the other in inappropriate ways.

Healing Doesn't Have to Come - A New Perspective on the Church's Attitude Toward Disability

Tessa Boersma

Faculty Sponsor: Professor Doornbos

In my presentation, I'll share my experience as a disabled member of the church, begin to break down deeply held Reformed beliefs about what our bodies 'should' be like, and discuss the damage of expecting God to 'heal' lifelong and chronic conditions. I'll share my comfort and hope, present new ideas about what it looks like to live well in Christ on this earth, and propose that Christian hospitality and love for one another necessarily includes acknowledging that not every created difference is problematic, as well as understanding that disabilities and chronic conditions are not barriers to a fulfilling life in Christ.

Law's Forgotten Element: Plato & Rawls

Trygve Bulthuis

Faculty Sponsor: Professor Taylor

Since Plato, philosophers have sought to illuminate certain principles or elements that constitute both “ideal” and “non-ideal” political regimes. Carrying on this tradition is John Rawls, who shares a concern for this investigation. My paper asserts that these two philosophers (Plato and Rawls) also agree on similar means of attaining the ideal. Specifically, I argue that Rawls, perhaps unknowingly, recovers a forgotten “element” of Plato’s contribution to political philosophy, namely a “preface” to law or persuasive “preambles.”

A Christian Analysis and Proposal for the American Food System

Brady Van Meeteren and Willem Kimm

Faculty Sponsor: Professor Hummel

The American food system’s mass production and economies of scale have largely phased out local, small-production agriculture. We propose a more balanced system centered around regional production and consumption to develop local economies, vibrant communities, and ecological services. To move towards this alternative, we suggest a restructuring of governmental support, a commitment to education, and an empowerment of the socioeconomic outcast.

Observing Cosmic Muons: From Portable Detectors to Modern Particle Physics Experiments

Elias Obbink

Faculty Sponsor: Professor Ho

Cosmic muons are produced when cosmic rays interact with the Earth’s atmosphere generating cascades of secondary particles that reach the surface. In this presentation, I will describe a recent project building a portable CosmicWatch muon detector capable of observing these particles in real time. I will discuss the assembly of the detector and the key components that allow for precise detection. Finally, I will highlight how these same detection concepts extend to large-scale particle physics experiments, like those at the Large Hadron Collider.

Braille Music

Paul Ophoff and Nathanael Wilcox

Faculty Sponsor: Professor Sandouka

This project explores the practicality of digital musical scores, with the goal of providing a way for Blind singers to access Braille music.

Head to Head: When Rivalries Work

Parker Freeman and Marcus Seifert

Faculty Sponsor: Professor Volkers

A documentary about the benefits that healthy rivalries bring to their respective colleges. We look at general college rivalries, but focus on the Dordt/Northwestern rivalry. This doc brings to light a rivalry's social, physical, and psychological impacts. We aim to encourage people to participate in healthy college rivalries.

BEHOLD

Reghan Brown and Simon Stoltzfus

Faculty Sponsor: Professor Volkers

BEHOLD God's creation from Space. BEHOLD is a documentary featuring scientists, engineers, astronauts, and moon walkers who encourage Christian engagement in the field of space exploration.

ChatGPA

Sydney Reyes and Mackenzie Gossman

Faculty Sponsor: Professor Volkers

In this documentary, we explore how AI has impacted education in the college setting and trust between the students and professors. We interview professors including David Mulder, as well as students with contrasting opinions. We want to show how much AI has broken trust, yet is a tool that can be used and is currently being used. Our main mission is to get people thinking and wanting to form their own opinion on this ever growing technology.

Minimize Me

Zachary Rupp and Chris Tamisiea

Faculty Sponsor: Professor Volkers

A documentary following a crazy diet designed to lose weight fast. Based off of the documentary Super Size Me but the opposite.

Sola

Philip Goetz and David Condor, Libby Bandelin

Faculty Sponsor: Professor Volkers

LeMars Bible Church has seen an influx of attendants in recent years, many of whom commute long distances just to hear God's word preached. We find out what is drawing people to this church as well as what is causing other churches to lose so many congregants.

Golden Work

Jackson Visscher and David Wibowo

Faculty Sponsor: Professor Volkers

A quick look into the work that goes into beekeeping. We dive into not only the literal beekeeping but also the emotional side of it, seeking answers to why our cast keeps bees but also what they have learned from the process. Throughout we also raise questions about declining pollinator count, climate change, and what the coming generations can do.

Music Production & The Art of Perseverance

David Condor

Faculty Sponsor: Professor Volkers

Join me as we go over the behind-the-scenes of my first music single, as well as the creative journey I took to complete it. A celebration of music and perseverance, and a reminder that just because you love doing something, doesn't mean it won't be hard.

7th Street Corridor Redesign

Sam Eppinga, Kyle Wellen, Ellie Janda, Marco Laenen, AJ Goetsch

Faculty Sponsors: Professor Saarloos & Professor Gingrich

This engineering senior design project reimagines 7th Street NE in Sioux Center as a safer, connected, and inviting corridor for everyone who uses it. By combining a traffic study with multimodal design ideas, the project addresses current gaps in pedestrian and bike infrastructure, accessibility, and overall community identity. The proposed improvements aim to enhance safety and mobility while helping 7th Street become less like a simple roadway and more like a welcoming, recognizable community space.

Gaming Guild Cameras

Ezekiel Blankenship and Bennett Van Surksrum

Faculty Sponsor: Professor Saarloos

Dordt's Gaming Guild has expressed the desire to expand its visual atmosphere with objects and artifacts that add to the environmental story that is being created. A recreation of the security camera character from the video game series: Portal, has been requested. To fulfill this, we will design an aesthetically similar camera, prioritizing the visual design, which will actuate to follow detected movement.

Prosthetic Connector Redesign

Brock Spade, Victoria Granda Benavides, Garrett Hoogendoorn, Michael O'Neill, Luke Swanson

Faculty Sponsor: Professor Saarloos

Integrum desires a new design for their prosthetic connector to improve the durability and long-term performance. We will design a more robust prosthetic connector while maintaining the current safety features to protect the user and the hardware.

TEC Expansion Canopy

Grady S Burkhart and Dylan DeMey, Will Gutzmer

Faculty Sponsor: Professor Vander Werff

This project designs a canopy for the TEC expansion at Dordt University to transform an underused service corridor into a functional and welcoming outdoor space. The design emphasizes weather protection, clear circulation, and flexibility for activities like demonstrations and small gatherings. Key considerations include structural safety under wind, snow, and uplift loads, effective drainage, and integration with surrounding buildings. Multiple concepts were evaluated based on function, cost, and constructability. The final design uses a steel frame with translucent panels to balance durability and natural lighting, resulting in a space that better supports community use and engineering activities.

Turret Paint & Transfer Cart

Alex Niemeyer and Jenna Oppedyk, Danilo Ortiz, Sierra Pirkey

Faculty Sponsor: Professor Saarloos

Elliot Equipment Company's current methodology relies on inefficient processes for painting, handling, and transporting turret systems throughout the manufacturing plant. These procedures require excessive human interaction, increasing the risk of potential safety hazards.

Listening and Learning At the Chalmers Center for Economic Development

Gracie Campbell

Faculty Sponsor: Professor Ploegstra

This presentation gives an overview of my remote summer internship at the Chalmers Center for Economic Development. Attention will be drawn to the data disaggregation and analysis that culminated in the year-end report. Reflections on my time at Chalmers and major takeaways will be discussed.

Half the Population, Half the Attention: Understanding (and solving) the Gender Health Gap

Annika Visser and Jenny Lumkes, Katie de Gier

Faculty Sponsor: Professor Danielle Wyenberg

75 million years. The women's health gap equates to 75 million years of life lost per year globally. The narratives surrounding medical fields are common; it is not unusual to hear a kid say that they want to be a doctor when they grow up. Most people know what doctors and nurses do. But there are a variety of issues within the medical community that the general public is often unaware of. One of the most significant of these issues is the gender health gap — women are severely underrepresented in almost all medical knowledge. There is less information on specifically female conditions, and there is less data on the ways that common conditions affect women specifically. We have chosen to present on this topic because we believe strongly that a person's healthcare quality should not be limited by their sex or gender. All people deserve to have healthcare available to them that is capable of treating them effectively.


Rock Valley Floodplain Restoration Plan

Beatrice Shackelford and Blaze Van Noord, Adalie Kamerman, Marijika Bakker

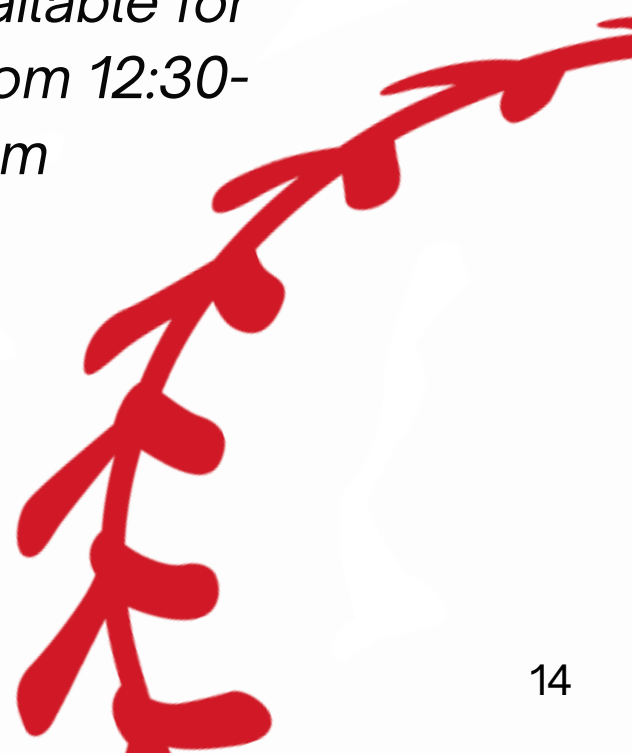
Faculty Sponsor: Professor De Haan

The Dordt Restoration and Stewardship class this year partnered up with Rock Valley to create a plan for the FEMA buyout properties from the devastating 2024 flood on the floodplain (approx. 40 acres). The mission statement of the project is: "Bringing long-term resilience, recreational opportunities, and natural beauty to the Rock Valley floodplain, while honoring the community's past, through sustainable restoration efforts." This presentation is an overview of our finished restoration plan including eight different habitat implementation plans, 0.7 miles of new trail, pollinator gardens, and new recreational areas.

Poster Abstracts



***Poster Session in
Science Building Atrium***
*Students available for
questions from 12:30-
1:15pm*



Principal Component Analysis of Spectral Line Images from the Center of the Milky Way Galaxy

Emma Phillips

Faculty Sponsor: Professor Fictorie (research completed at KU)

The Central Molecular Zone (CMZ) of the Milky Way Galaxy is a complex and chemically rich region. We used Principal Component Analysis (PCA) to study chemical trends in two surveys of molecular line emission from the CMZ. PCA was used to reduce the dimensionality of each of these datasets and identify trends in the distribution of key molecular species. We also conduct the first PCA analysis of full spectral data cubes for this region, demonstrating the potential utility of PCA for disentangling the complex gas kinematics of this region.

What does it Mean to Belong?

Hannah Van Hofwegen and Sophia Jansen

Faculty Sponsor: Professor Beimers

Through the data we collected from Ed 300 students we gathered a definition of belonging and how that can be fostered in the classroom.

Lead Poisoning

Nicodemus Elliott and Lindsey Mesman

Faculty Sponsor: Professor Folkerts

Our presentation will explain the etiology, epidemiology, pathophysiology, as well as current issues surrounding the topic of lead poisoning in the US. Lead poisoning in the US has been linked to multiple disease processes and systemic changes must be implemented to protect our population from this harmful toxicity.



Youth-Onset Type II Diabetes

Kaitlyn Dykstra and Olivia Graber

Faculty Sponsor: Professor Folkerts

Youth-onset Type II Diabetes is a chronic metabolic disorder characterized by insulin resistance and deficiency in children and adolescents under the age of 20 years old. Its incidence has risen with the rising number of childhood obesity and sedentary lifestyles, as well as disproportionately affecting certain nationalities (Perng, W., Conway, R., Mayer-Davis, E., Dabelea, D., 2023). This topic is of concern to us because the United States ranks in the top 5 for the highest prevalence per 1,000 youth below the age of 20. It is also of interest because many of the risk factors or causes are modifiable, such as obesity, physical inactivity, and consumption of high-fat, calorie-dense, or sugar-containing food items; these risks could be mitigated, and the disease process could potentially be halted by proper education beginning at a younger age. (La Grasta Sabolic, L., Marusic, S., & Cigrovski Berkovic, M., 2024). Early-onset diabetes also plays a role in the early development of serious complications like cardiovascular disease, retinopathy, vision loss, and kidney failure (Laffel, L., MD, MPH, & Svoren, B., MD, 2026).

Cardiovascular Disease in Young Adults

Maggie de Jong and Kyra Bakker

Faculty Sponsor: Professor Folkerts

Cardiovascular disease is an increasing public health concern among young adults in the United States, driven by rising rates of hypertension, obesity, and diabetes. While mortality has declined, morbidity is increasing, leading to prolonged illness, higher healthcare costs, and reduced quality of life, highlighting the need for prevention and early intervention. Some interventions may include enhancing the use of health information technology, institutionalize the use of team-based care approaches, and connect patients with resources to manage their health.

Exploring the Epidemiology of Substance Abuse Among Nurses

Bryce Wick and Alana Fergen

Faculty Sponsor: Professor Folkerts

Our project seeks to compile the current literature exploring the risk factors involved in substance abuse among nurses. In exploring these risk factors, we hope to identify and expand upon possible methods of prevention and treatment, particularly through early education and Alternative to Discipline (ATD) programs. Through these methods, we can help optimize outcomes not only for our nurses, but also for the patients they serve.

Pediatric Obesity

Brooke Marjama and Kendal Gordon

Faculty Sponsor: Professor Folkerts

Pediatric obesity is considered a chronic, multifactorial condition influenced by genetic, behavioral, environmental, and socioeconomic factors (Styne et al., 2023). This condition is classified as a major public health concern in the United States because it is associated with both immediate and long-term health consequences. It negatively impacts psychological well-being, increasing risks for depression, stigma, and reduced self-esteem (Styne et al., 2023). Additionally, pediatric obesity contributes to growing healthcare costs and negatively affects lower-income populations and minority communities who lack access to proper healthcare. Dietary patterns, physical inactivity, and sedentary lifestyle must be addressed to reduce its prevalence in the United States today.

Metabolic Syndrome in America Today

Megan Mokma and Laura VanNoord

Faculty Sponsor: Professor Folkerts

Metabolic syndrome is an increasing problem in America. This presentation will focus on the risk that a sedentary lifestyle poses and the increased risk for metabolic syndrome. Multiple peer-reviewed sources showed obesity, hyperglycemia, hypertension, and hyperlipidemia, all of which are contributing factors of a sedentary lifestyle. Additionally, research highlights the importance of promoting physical activity and a healthy lifestyle to prevent and manage the increased risk of a metabolic syndrome diagnosis. This research supports that a sedentary lifestyle increases risk for metabolic syndrome, and health promotion is important in reducing the incidence.

Risk Factors and Prevention of Multiple Sclerosis

Megan DeVries, and Lily Hofer

Faculty Sponsor: Professor Folkerts

There are many risk factors that impact the likelihood of developing multiple sclerosis. Multiple Sclerosis (MS) is a disorder of the central nervous system. This disease can have a variety of symptoms like dizziness, ataxia, unsteady gait muscle stiffness, tremors, vision loss, fatigue, and loss of muscle movement. Risks for the public to be aware of are maternal smoking, exposure to pesticides, certain viruses, and many others. The risk factors of Multiple Sclerosis is important in nursing as well as for the public as it will increase awareness and decrease the occurrence of the disorder.

Human Trafficking Risk of Vulnerable Children

Petra Heinze and Hannah Jeremy

Faculty Sponsor: Professor Folkerts

In this project, we will explore how children and adults who have been in the foster care system are affected differently by education and awareness about human trafficking when compared to other groups. We will look at various common methods of raising awareness, and will compare outcomes between children and adults who have not been involved in the foster care system with those who have.

Teen Distracted Driving

Jarett Kuipers and Gracie Schoonhoven

Faculty Sponsor: Professor Folkerts

Distracted driving among teenagers remains a major public health concern, contributing significantly to motor vehicle injuries and fatalities. Common distractions include mobile phone use, passenger interaction, and inattention to road conditions. Nurses play an important role in prevention through education, advocacy, and community outreach aimed at promoting safe driving behaviors. This poster covers current data on distracted teen driving, identifies contributing risk factors, and highlights evidence-based nursing interventions that can reduce preventable accidents and improve adolescent safety outcomes.

Food Insecurity's Effects on the Development of Children

Chloe Kreuz and Joslyn Terpstra

Faculty Sponsor: Professor Folkerts

This is of concern to the public at large because it affects millions worldwide; the insufficient access to food leads to malnutrition, chronic health problems, and obesity. By addressing this crisis, we look to see trends in children, aiming to reduce obesity and improve overall health and developmental outcomes.

Ligament Injuries in College Athletes

Luke Nikkel and Carlee Jackson

Faculty Sponsor: Professor Folkerts

We are doing a poster presentation over the topic of ligament injuries in college athletes. This is an epidemiological research presentation so we will be presenting on the overall idea and definition of ligament injuries, the prevalence, incidence, morbidity, and mortality seen in college athletes, along with several different healthcare interventions taken at different levels in society.

Community Acquired Pneumonia

Katelyn Huizenga and Ava Nykamp

Faculty Sponsor: Professor Folkerts

Community-acquired pneumonia is a lung infection that affects many people in the United States and is impacted by age, race, and location. This poster compares trends in pneumonia from 2013 to 2021. We found that many different interventions such as vaccinations and education along with prevention have led to major decreases in community-acquired pneumonia prevalence in the United States. This poster also compares interventions between the local, state, and national levels.

The Diagnostic Challenges of Young-Onset Parkinson's Disease

Kirsten Albright and Annalise Busch

Faculty Sponsor: Professor Folkerts

We both researched the diagnostic challenges of Young-Onset Parkinson's Disease. YOPD is defined as Parkinson's Disease with an age at onset after age 21 years to 40-55 years old. Often, these patients have a higher number of neurological visits and clinical investigations prior to diagnosis. The incidence of YOPD has increased over the past decade and patients are often diagnosed late or misdiagnosed. This diagnosis negativity impacts the well-being and quality of life for patients. We have found statistics and graphs to visualize the prevalence, incidence, and mortality of Young-Onset Parkinson's Disease. Some diagnostic challenges include young age, rarity, slower onset/progression, and lack of diagnostic testing.

Alzheimer's Disease

Pascal Sang and Ryan Rotich

Faculty Sponsor: Professor Folkerts

This study looks at the risk factors for Alzheimer's disease in persons of various racial backgrounds. It focuses on healthcare access, education, socioeconomic status, hereditary risk, and associated illnesses like diabetes and cardiovascular disease. Results indicate that socioeconomic determinants of health are a significant factor in disparities, even though genetics also plays a part. Certain communities are more vulnerable due to limited access to healthcare and education, as well as a greater load of chronic diseases. Reducing the disproportionate impact of Alzheimer's disease requires addressing these disparities.

Childhood Vaccination Compliance in the United States

Erin Ruis and Darcy Van Den Brink

Faculty Sponsor: Professor Folkerts

When parents delay or choose not to give some or all childhood vaccines because of uncertainty or concerns, even though vaccines are available. Importance: Vaccine compliance is a public health concern because low vaccination rates can lead to the spread and outbreak of preventable diseases. Interventions to address this topic: Public health surveillance systems for data, Outdoor/curbside vaccination services, Mobile clinics, School based programs, Cost reductions, Vaccination reminders recall system, Improved coaching on vaccination, Studies on vaccination compliance vs mortality/illness rate in children.

RSV: In the Infant Population

Rachel Draaistra & Tristan Schlechter

Faculty Sponsor: Professor Folkerts

For our project we are presenting on the epidemiology of RSV with a more specific look at how RSV is impacting the infant population. Our project will include different aspects like the morbidity, incidence, mortality, and prevalence all of these tools will give us a deeper look at how RSV is impacting the infant population.

The Rising Prevalence of Asthma in the United States

Audrey Lord and Maggie Alons

Faculty Sponsor: Professor Folkerts

Asthma is one of the most prevalent chronic respiratory diseases worldwide. It is a heterogeneous condition, meaning its clinical presentation and diagnostic criteria can vary across populations and regions. Globally, it is estimated that approximately 262 million individuals are living with asthma. In the United States, asthma has remained a significant public health concern for many years. However, in light of recent events such as the COVID-19 pandemic, questions have emerged regarding whether the incidence or severity of asthma has increased.

Concussions impact on academic performance in college students

Peyton Poppema and Karly Lambert

Faculty Sponsor: Professor Folkerts

Concussions are a significant health concern because they are common among young adults, and particularly college-aged individuals who participate in athletics, recreational sports, or can even occur from accidents/falls. When college students get a concussion, we are researching how their symptoms may interfere with their academic performance.

Melanoma

Annika Dyk and Alayna Groce

Faculty Sponsor: Professor Folkerts

Melanoma is a serious and increasingly prevalent form of skin cancer primarily linked to ultraviolet (UV) radiation exposure. It is among the most common cancers in the United States, with rising incidence rates, particularly in fair-skinned populations. This condition poses significant public health concerns due to its aggressive nature and potential to metastasize. Preventive strategies—including reducing UV exposure, avoiding indoor tanning, and promoting sunscreen use—are critical. Public health initiatives and education, especially targeting younger populations, have shown effectiveness in lowering risk behaviors and improving early detection outcomes, ultimately helping to reduce melanoma-related morbidity and mortality.



Senior Biology presentations in CL 1321 from 12-3pm

Internship and the Business Plan projects on display in the Business Department in the Campus Center from 3:30-5pm