



**HOUSE OF STUDIES
EXHIBITION NIGHT
FEBRUARY 25, 2025**

PROGRAM INTRODUCTION

Welcome to our Third Annual House of Studies Exhibition Night!

The Nerinx Hall House of Studies program ignites students' passion for learning and helps them seek their highest academic potential. Our members have taken their interests to a level beyond the typical high school curriculum. Tonight, we are proud that our seniors can share their capstone projects and their intellectual journey to completion.

Class of 2025 House of Studies members were invited to be a part of this program as freshmen because of their high academic performance, which they have maintained for four years. During this time, these students have participated in both virtual and live enrichment opportunities related to current events and topics of interest. Members were also involved in additional summer reading and follow-up book discussions with authors and relevant speakers.

The name "House of Studies" was chosen because of its ties to the Sisters of Loretto. While the sisters were going through their formation, they completed their academic work in the House of Studies. In this tradition of a community of learners, the mission of our program focuses on experiential learning driven by individual interests, with particular attention paid to student growth and the development of ideas. All students in the House of Studies have worked to create a capstone project reflecting a topic they are passionate about and will share these projects with the entire community this evening.

We would like to thank our mentors, teachers, and parents who are here tonight. We know that your support is critical for student success.

Sincerely,

Lori Hunt and Brenda Nahlik
House of Studies Moderators

Sarah Anderson

The Dancers' Exchange

Location: Gym



The Dancers' Exchange is a nonprofit organization dedicated to making dance accessible to underprivileged children while promoting creativity, inclusivity, and empowerment. The organization was originally just collecting and redistributing costumes, but I chose to add another aspect by teaching a dance camp over the summer to kids who could not afford dance lessons otherwise. The Dancers' Exchange believes that every child deserves the opportunity to experience the joy that dance brings, regardless of their financial circumstances.

Through the dance camp, we teach not only movement and technique but also essential life skills such as self-expression, teamwork, and perseverance. Dance is a powerful tool for building confidence and fostering creativity, and we aim to inspire every child to reach their full potential through the art of dance.

In addition to our lessons, we address financial barriers by collecting and redistributing gently used dance costumes. Costumes are often expensive, and many families cannot afford them, which limits opportunities for children to fully participate in performances. By collecting donations from dancers, studios, and community members, we ensure these costumes are given a second life. We brought donated costumes to our dance camp over the summer and donated them to a second dance camp run by another organization.

At The Dancers Exchange, we strive to build a supportive community where no child feels left out due to financial limitations. By connecting donors, volunteers, and young dancers, we create a space where every child can learn the art of dance and provide an experience they may otherwise not get.

Maria Andres

*Growing Up in a Family
Roofing Business*

Mentor: Sarah and John Andres

Location: EAC 2



For my capstone project, I created an online presence to promote my family's business, Andres Roofing. Growing up, I have witnessed the hard work, fortitude, and constant effort my mom and dad put into their company. Wanting to put in the same effort, I decided to help by marketing our small, local business. I created an Instagram page and a Pinterest account to show people why they should choose Andres Roofing for their roofing needs. I focused on the dynamics of a "family run" business through film. My pictures and videos on the company's social media accounts reflect the hard work, dedication, and teamwork of the Andres Roofing team. To truly see their diligent work, I concentrated on my dad's day-to-day life. I went to work with my dad and brother for a day to film and observe the tasks at hand. I also interviewed my mom and dad to provide a comprehensive understanding of our company for our potential new customers. I uploaded all the shingle colors that we install on Pinterest for potential homeowners to review. The marketing aspect of this project has inspired me to integrate marketing into my future career. My project has given me an opportunity to use my creativity to support my family business, and I have enjoyed working with my mom and dad.

Delaney Arens

*Cheer Again, Sydney:
A Prosthetics Booklet for Kids*

Location: Gym



Cheer Again, Sydney follows the journey of a young cheerleader who, after an amputation, doubts her ability to return to the sport she loves. Determined to uplift her, Sydney's mother takes her on an inspiring day out, showing her incredible individuals with prosthetics who defy limitations every day. Seeing their strength and resilience, Sydney begins to see that with or without a prosthesis, she is capable of anything she sets her mind to.

Through this book, I hope to inspire others to overcome their own challenges and believe in themselves.

Chloe Ariston

*The Evolution of Reading as
Caused by the Mainstream
Media*

Location: EAC 3



I have always loved to read, but when growing up I was almost ashamed of my favorite hobby. I felt like it was not cool to be a reader. I never had any friends who also enjoyed reading and had always wished for a community to share my love of books with, but throughout elementary and middle school I never found one. But in 2019 when Tik Tok blew up, “Booktok” blew up along with it. With the rise of Booktok, reading became trendy; it became a mainstream hobby that I felt was not considered nerdy anymore. Through this rise in reading popularity, Booktok created an opportunity for me to find a reading community, as with the rise of book influencers, more people my age got into reading.

For my project, I wanted to do a deep dive into how the mainstream media has led to a resurgence in young readers. I researched Booktok and its effect (both the positive and negative) on reading and publishing and the rise in book movie and TV adaptations. I additionally conducted interviews with local Nerinx readers, and an employee of the Novel Neighbor bookstore, located in the heart of Webster Groves. Also looking into the history of reading and the benefits it can provide to people.

Lucy Banks

Toothpaste Trials

Location: E9



For my project, I trialed two different types of toothpaste. My two participants took part in a three-day trial, using two different types of toothpaste.

The first toothpaste, Colgate Cavity Protection, uses the typical ingredients that dentists tend to recommend. This Colgate blend is made with Fluoride and Sodium Lauryl Sulfate, two ingredients that the other does not include. The second toothpaste is called Neem. It is an all-natural toothpaste with only 9 ingredients.

In the trial, my participants wrote their observations about each toothpaste and eventually, their final thoughts and critiques. As the organizer, I then wrote a review and recommendation for the toothpaste favored by my participants.

Alex Bauer

Oak and Cypress Crochet

Location: Gym



My capstone project is a small, independent crochet business called Oak and Cypress Crochet, specializing in small gifts, handcrafted items, and personalized pennants. The inspiration for the name comes from a poem by Lebanese poet Khalil Gibran, titled On Marriage: "For the pillars of the temple stand apart, / And the oak and cypress grow not in each other's shadow."

I have been crocheting for about 3 years now. I taught myself during the COVID-19 lockdown, and for the most part since then, have just given my work to friends and family and heavily relied on patterns from online resources.

Through this project, I wanted to further my knowledge on what it means to run a business, learn how to develop and draft my own patterns, and, most importantly, expand my customer base. I created multiple designs for my store, including a tapestry crochet pattern inspired by Nerinx Hall's 100-year centennial celebration.

I chose this as my capstone project because I believe it is the perfect opportunity for me to express my love of the arts and the culmination of many years of hard work. I likely will not continue the fine arts route professionally, so I wanted to seize the opportunity to now build something out of this passion.

Isabel Bergom

Researching the Microbiome

Mentor: KC Huang

Location: STEM 1



For the past two summers, I have worked as an intern at the KC Huang Lab at Stanford University, where I studied the microbiomes of dogs, cats, and humans while creating two extensive mutant libraries of bacteria found in the microbiome. I made three copies of each library which are stored at the Stanford Biohub, a research center for biomedical engineering. I took detailed notes of my experimental methods and data in my lab notebook (included in my presentation).

My daily schedule consisted of creating and sterilizing various types of bacterial growth media and agar plates (pictured), sterilizing my equipment, and collecting my samples from a -80°C freezer in the lab. After optimization of my experiments, I determined the dilutions necessary to plate the bacteria. Then, after diluting these samples, I plated them on growth medium agar, incubated them, and then, after 24 hours, isolated them into over 200 96-well plates.

While creating my libraries, I mentored two other high school students, who I taught about the lab policies and procedures while I worked with them to isolate each colony. Additionally, each day, I completed my own research on the microbiomes of dogs and cats, by following the same plating procedure within an anaerobic chamber with stool samples for dogs and cats. These plates were then sent off to be sequenced, and I am currently in the process of analyzing the data. I hope to publish my findings on the types of bacteria that reside in these microbiomes.

Kiara Bolán

Kiara's Collection of Clean and Green Recipes

Location: Gym



I created a guide to embracing the healing properties of food. Throughout my last seven years as a vegan, I have found these recipes to be nourishing, satisfying, and sustainable for my diet. From vibrant salads to sweet potato brownies, these dishes are designed to keep you healthy, provide ample protein, and support gut healing.

My goal is to share how simple, healthy, and delicious a vegan diet can be!

Hollye Anne Brinkley

*Sports Nutrition for Female
Athletes*

Location: Gym



As a student athlete, I have struggled to figure out what to eat and when to eat. I have never really known how to properly fuel my body so I could have the energy I needed; it was all just guesswork. So, I decided to do a deep dive to learn about the specific nutritional needs of female athletes and myself in particular.

I learned about what nutrients and macromolecules were most important and how to properly implement them into my diet. After completing my research, I applied all that I learned into developing a few recipes of my own. Bearing in mind my own specific energy needs and how best to satisfy them, I experimented with different ingredients and techniques to come up with recipes that would help me easily fuel and stay energized for whatever I was doing.

Bella Buttice

Daisy Mae Jewelry

Mentor: Joe Buttice

Location: Gym



For my project, I created jewelry out of used and dated pieces. I received donations from several people in my community and turned the pieces into something new and popular that people would wear. The point of using old jewelry was to prevent as much jewelry from being thrown away as possible. Lots of people buy cheap jewelry that tarnishes or fades within weeks. My project would provide people with the same jewelry for the same price, just without the fast fashion aspect.

One example of a piece that I did was taking a large wooden beaded necklace and turning it into a gold beaded bracelet. In between each wooden bead, there was a gold bead. I was able to use those to create a bracelet that is similar to popular ones right now.

Gabbi Campanella

Humanities Book

Location: Gym



For my project, I have written a book reflecting on my experience during the Nerinx Hall Humanities Trip and the profound impact it had on me. Through personal storytelling and reflection, I explore how this journey shaped my perspective, deepened my understanding of the world, and influenced my personal growth.

My goal is not only to share my transformative experience but also to inspire other students to take advantage of this incredible opportunity.

Mia Christanell

Social Work vs. Psychology

Mentor: Jan Leal

Location: E14



My project explores the distinctions between a degree in social work and a degree in psychology, examining the unique approaches, career paths, and opportunities each field offers.

Through my research, I aim to gain a deeper understanding of both disciplines and determine which aligns best with my passions and professional goals.

Gretchen Curl

The History of Dance

Location: E7



A deep dive into the origins of movement and dance throughout history and how they have accumulated to become what dance is today. From folk dancing and court dancing to African dancing and French ballet, dance has been a consistently popular activity in the timeline of human history. It has been used in religious ceremonies and cultural traditions alike, as well as a means of self-expression. Dance reflects the sentiment of differing cultures and people across our world, and combines them to form what we know today as dance.

My research offers an exploration of different dance styles, how they came to be, and various cultures and historical events that have influenced their development. Additionally, this project inspects the way that different forms of dance intersect, combine, and inspire each other. It analyzes the characteristics of movement in styles like jazz, ballet, hip-hop, tap, ballroom, pom, and more.

It includes four self-choreographed pieces: two solos and two team routines in hip-hop, jazz, and tap using what I have learned about dance history to guide and inspire me. As well, it includes videos of popular dances in styles of paso doble, acrobatics, ballet, and tap from popular and professional dancers such as Derek Hough and Hayley Erbert, the Nicholas Brothers, the University of Minnesota Dance Team, and the New York City Ballet. This research is an immersive journey and timeline of the foundations of dance and how it has adapted and changed over time.

Evie Dalton

*Expectations of Writing
vs. Reality*

Location: E8



For the past two years, I have been working to bring the novel of my dreams to life - a process that has been both exhilarating and unexpectedly challenging. What began as a few scattered ideas quickly evolved into pages of notes, then a structured outline, and eventually, my first chapter.

This novel has become my greatest passion project, fueled by high expectations and a deep love for storytelling. However, I soon realized that writing a novel is far more complex than I initially imagined. I overestimated how seamlessly the words would come together and encountered numerous creative roadblocks along the way. Through this journey, I have gained a deeper understanding of the writing process, learned to navigate setbacks, and ultimately grown as a writer.

My capstone project reflects this experience, highlighting the challenges, lessons, and perseverance required to turn an idea into a fully realized story.

Emma Dixon

Nerinx Water Conservation

Location: Library



My project focuses on the urgent need for water conservation in response to the growing shortage of clean water. My goal is to raise awareness about how our daily actions contribute to this crisis and inspire more responsible water use.

To highlight the severity of the issue, I created an informational film that explores the causes and consequences of water scarcity, along with compelling data that illustrates the magnitude of the problem. Through this project, I hope to encourage others to take meaningful steps toward water conservation.

Julia Egelhoff

*Founding a Chapter of The
National Art Honor Society*

Mentor: Lori Hunt

Location: T3



In my capstone project, I successfully founded a chapter of the National Art Honor Society. I chose to do this project because I wanted to help students of Nerinx get more opportunities to do art outside of school, and to also be able to talk to professionals about art in college or art professions.

In order to found this chapter, I had to start with hours of research on the proper steps of creating bylaws and looking at what other schools have done to implement these rules into the chapter. I then met with my mentor, Mrs. Hunt, several times to approve and revise the bylaws that I came up with. Once the bylaws worked for Nerinx's busy schedule and academics, I was able to propose my project to Dr. Grumich and other faculty members. It was approved by them, which then allowed me to get help on running the numbers for how many students would be eligible to join my chapter. After I got this list, I sent an email that gave some information about the NAHS and attached an interest form for the interested students. I then held a meeting for all the interested students, and told them the bylaws, the service requirements, the leadership opportunities, and my personal hope for what the chapter could bring.

The next steps of my projects are holding a meeting for students to confirm their spots in the new chapter and sending the completed paperwork to the NAEA.

Madeline Ewing

*Do's and Don'ts When Finding
Your Home*

Mentor: Emily Booker

Location: Gym



My project is aimed to be a simple start to learning what to do and not do when buying your first home. It is a pamphlet explaining the best and the worst choices people make when searching for their next property. Some of these things you would never even think about but could be super important when it comes to the look, feel, and location of a home. It also goes over crucial things to do before you even start your search for the perfect place to be.

To learn more about this I met with a good friend and successful realtor at Garcia Properties, Emily Booker, and she gave me lots of insight and sent guides that I plan to use when the time comes for me to buy my first place on my own. For anyone looking into, or thinking about buying a new home, for the first time or even fifth time, these suggestions will most definitely come in handy.

Josie Fedele

Nutrition Made Simple: Healthy Meals for a Healthy Lifestyle

Mentor: Sara Fedele

Location: Gym



My capstone project is a website designed to provide fundamental nutritional information about macronutrients, along with macro-based recipes. Throughout high school, I have developed a strong interest in nutrition, health, and wellness, and I wanted my project to reflect this passion in a meaningful and accessible way.

The goal of my project is to serve as a resource for myself and others to learn more about nutrition and make informed choices to improve eating habits. I began by researching the roles and food sources of the three primary macronutrients: protein, carbohydrates, and fats. From there, I developed and tested simple, macro-balanced recipes. Finally, I compiled all my research and recipes into an easy-to-navigate Google website, creating a practical and informative tool for those interested in better understanding nutrition.

Grace Goehmann

Traveling Solo

Location: T2



My capstone project is a video essay reflecting on my solo trip to Spain, where I worked as a counselor at Pueblo Inglés, a language immersion camp. My role was to mentor and assist Spanish-speaking teenagers in improving their English while experiencing full cultural immersion myself. Through this experience, I gained a firsthand understanding of Spanish culture and daily life, particularly what it's like to be a teenager in Spain. At camp, we explored traditional Spanish foods and activities while also sharing aspects of our own cultures with the students. The experience allowed me to compare the differences and similarities between our lifestyles in a way that was both eye-opening and meaningful.

In my video, I also discuss the challenges and rewards of traveling internationally for the first time alone at 17. Arriving in a foreign country where I knew no one pushed me completely out of my comfort zone, but it also gave me the opportunity to start fresh and build connections. I had to be open, adaptable, and sociable, which made the experience even more rewarding. My hope is that this video will inspire others to take similar risks and embrace new opportunities because stepping into the unknown can lead to some of the most incredible and transformative experiences.

Meg Grindel

Art of the Mind

Mentor: Lori Hunt

Location: T1



My *Art of the Mind* gallery brings together a diverse group of artists who have experienced mental health challenges. I wanted to show artists whose art is recognized but not the struggles they went through, while also spreading a greater understanding and empathy for mental health struggles. I have included descriptions of each artwork and what the artist was going through while they created it. The descriptions also include how they expressed their struggles in their art through things like symbols, use of color, and the progression of the content of the work.

My goals with this project are to raise awareness about the diverse experiences of mental health, challenge stereotypes and misconceptions about mental illness, and empower future artist to continue to express their emotions in their art. I have focused on artists who were called crazy or struggled with anxiety and depression and used my experience in my AP Art History class to analyze their work and experiences and their significance in the art world.

Lainey Harp

Building Equity for All

Mentor: Matthew Harp

Location: Gym



For my capstone project, I set out to better understand the value of money. Despite having a fortunate life and a steady income, I realized I had lost sight of what money truly means and how to manage it wisely. To change that, I collaborated with my dad, a financial advisor, to learn about financial responsibility, saving, and investing—essentially, how to take ownership of my financial future.

Throughout this journey, I created a dedicated savings account and built substantial savings. I also ventured into investing, tracking my money's growth in the stock market. Beyond just numbers, I gained a deeper appreciation for the power of financial literacy and the importance of making informed decisions with money.

To showcase my experience and insights, I designed a visual display that highlights key lessons and milestones from my project. Through this, I aim to share what I've learned about financial independence and the long-term benefits of smart money management.

Raegan Hart

All About Food Allergies

Mentor: Riley Hart

Location: Gym



For my project, I wanted to create a website and an informational board about food allergies, as well as substitutes you can use for certain allergens when baking or cooking. I have been living with allergies to eggs, peanuts, and tree nuts my whole life. I am also now allergic to sesame and milk in addition to the others, so food allergies are a topic that I know a lot about. I have had multiple anaphylactic reactions, and even tried getting rid of my egg allergy using OIT but was unsuccessful.

Not everyone knows a lot about food allergies, even though they are becoming increasingly more common, so I wanted to share facts and information. I talk about my life with food allergies, as well as substitutes for eggs, milk, and wheat on the website. There is also information about treatments for allergies, links to websites with plenty of recipes safe for many and more information for those who want to learn more. In addition to all of this, I developed three recipes for common baked goods (cookies, brownies, and cupcakes) using my knowledge of baking, because I cannot always find great recipes online and wanted to share a few of my go-to's for those who may struggle. I put these recipes, along with the other things I mentioned, on a google site and made a poster to display the information.

Lexi Hart

*Missouri's Environmental
Crises and the Steps to
Mitigate Them*

Location: STEM 2



My project is about different environmental crises impacting Missouri specifically, because I noticed that most of the time when we talk about climate change and its impacts we do not typically focus on a local level. I looked at topics such as Water Quality, Habitat Loss, and Air Pollution, as well as how Climate Change is affecting our own communities. I focused on the history of these issues, how they evolved over time to become what we see in our communities today. I paid special attention to the ways policymakers have impacted these situations, either in a positive or negative light.

My goal with this project was to help spread awareness on these issues and get the public more involved with climate action as it relates to issues in their own backyard. I plan to submit my finished findings and proposals to the Missouri State Legislature for review and consideration, in hopes that it will open doors for more climate action laws to get passed and implemented.

Nora Hugo

*Gravity: From Newton's Apple
to LIGO*

Mentor: Dr. Alexander Haber

Location: STEM 3



From black holes to your GPS app, gravity is at the root of almost everything in the universe. My project is an attempt to explain what gravity is, how it works, and when it gets weird.

Through this presentation, I hope to help correct common misconceptions and explain some of the fundamental concepts of our universe, as well as explain why research into this type of field is so important.

Regan Ibendahl

The Regan I

Mentor: Jim Boczek

Location: Heagney Lobby



For my capstone project, I wanted to build something hands-on, and a model rocket quickly came to mind. Since I plan to major in Aerospace Engineering, this project aligned perfectly with my interests while allowing me to be creative and make something entirely my own. The simplest approach would have been to buy a kit and assemble it, which still would have been a challenge. However, with my mentor's guidance, I decided to build the rocket completely from scratch. We constructed it as tall as possible, using only materials we sourced ourselves, without purchasing any pre-made components.

I named my rocket the Regan I - a nod to both my first rocket and the first letter of my last name. During launch, it didn't reach the height we had hoped for, and unfortunately, the parachute failed to fully deploy, causing significant damage on impact. However, with adjustments, structural improvements, and more powerful engines, the Regan I will fly again.

Maeve Journagan

*Hiking 120 Miles of the
Appalachian Trail*

Location: W11



Over the summer, I hiked the northernmost 120 miles of the Appalachian Trail with my summer camp, Miniwanca. My capstone project highlights the gear I used, the map of my journey, and the invaluable lessons I gained along the way. For five weeks, I was completely off the grid—no phone, no contact with family or friends. Those weeks held some of the most difficult days of my life, but also the most rewarding and unforgettable.

My all-female group of six high school seniors and two college student leaders started each morning at 5:30 a.m., packing up our tents, preparing our gear, and filtering water for the day ahead. We averaged 12 miles of hiking daily, navigating a relentlessly rugged trail with no flat terrain. The experience pushed me to my physical, mental, and spiritual limits, forcing me to dig deep and persevere. Through every challenge, I learned that with strength and patience, I can rely on myself to overcome anything.

Eva Juric

The Faces of Tamburica

Location: W9



Tamburica, or Croatian folklore in the form of song and dance, has been a large part of my life for quite some time. I joined my Croatian church's Tamburica group when I was 12, and although I protested when my parents drove me to long practices every Sunday, or when I had to wear five layers of skirts during our hot summer concerts, I learned how to love this creative expression of culture and history. After five wonderful years in the group, I decided to leave to focus on other aspects of my life, but I still try to go to every one of their performances and take in the beauty of the art form.

For my capstone project, I wanted to capture the faces of the people that made my time in Tamburica so special. Watching them continue to maintain Croatian identity through song, dance, and intricate costumes inspires me to be the most authentic version of myself, and this community has shown me so much love and support at many points of my life. This collection of photos are a glimpse into the joy, beauty, nerves, and excitement that come with representing one's culture in front of a large audience, and is an inspiring example of a younger generation's quest to maintain the culture of their ancestors.

Olivia Keim

ACL Injury and Repair

Mentor: Hana Bernhardson

Location: N3



My capstone project explores the detailed structure and function of the ACL (Anterior Cruciate Ligament), which connects the tibia and femur in the knee. ACL injuries are common in both sports and everyday activities, often requiring surgery if the ligament is completely torn. The type of surgery performed depends on the severity of the injury, though in some cases, non-surgical options exist. However, for those who lead an active lifestyle, surgery is highly recommended. Recovery begins immediately with physical therapy, following a structured rehabilitation plan that can take nine months or longer. Progress is assessed through various tests to determine when it is safe to move to the next phase of recovery.

I chose this topic because I tore my ACL in March, making it a significant part of my life right now. The decision to undergo surgery happened so quickly that I didn't fully understand the process at the time. Through my research, I've gained a deeper understanding of the different surgical options, the steps involved in the procedure, and the extensive rehabilitation required. ACL tears are a common injury, yet many people don't realize the complexity of the recovery process or how demanding it truly is.

Kyra Kidder

Stitching from the Ground Up

Location: Gym



As part of my capstone project, I aimed to teach myself how to sew. When I was young, I would watch my grandmother spend hours creating the perfect dress, the most gorgeous blouse, or the snazziest pants. Now, as an almost-adult, I wanted to allow myself to learn such a necessary life skill.

Although I had taken a home economics class in middle school, I had not touched a sewing machine since! So, despite my lofty goals and lack of skills, I set out to create perfection. I may not have reached perfection, but I did construct something I am proud of: a newfound understanding of my grandmother's hard work and the art of sewing, along with a few beginner-level articles of clothing. Starting with almost no prior knowledge, I transformed patterns, fabric, and thread into something I'd be happy to wear.

Julianna Komp

*Blog Posts on Sustainability
and Small Changes that Make
a Big Impact*

Mentor: Raeann Eschmann

Location: W5



I conducted in-depth interviews with scientists from the Missouri Botanical Garden and experts in sustainability, water management, and ecology, alongside my own independent research. Using this information, I wrote a series of articles focused on climate change and sustainability, covering topics such as the role of insects in the ecosystem, rainscaping and native lawns, and water management and infrastructure. These articles emphasize how small, individual actions can lead to significant positive changes in both local backyards and the broader ecosystem.

To increase awareness, I published my articles on a blog website, making this information accessible to a wider audience. I have always been passionate about educating others on climate change and environmental sustainability, and my project highlights practical steps that anyone can take to contribute to a healthier planet.

Ivy Kotcher

Native Plants & Natural Dyes

Location: Gym



I explored the art and science of natural dyeing, using plant-based pigments to create a hand-dyed scarf. This project delves into the history of natural dyes, which have been used for centuries in various cultures, and focuses on the process of foraging for local and native plants to extract pigments. I collected plant materials from both the wild and purchased sources, experimenting with different techniques to extract and apply the pigments to yarn.

I also explored the science behind plant pigments, investigating how they interact with different fibers and the chemical processes involved in colorfastness. I am learning more about the value of sustainable practices, such as foraging and using plant materials that are native to our local environment, responsibly relying on what is around us rather than synthetic materials. In addition to examining the chemical and ecological aspects of natural dyeing, I looked at the cultural significance of dyeing in various societies and its connection to traditional fiber arts like knitting and weaving. This research and experimentation has allowed me to take an in-depth look into how science, art, and sustainability interact and are woven into each other.

Anya Krause

The Fight For Our Earth

Location: EAC 1



For my capstone project, I created a video of my summer vacation and all the national parks I visited. I visited Glacier, Banff, Jasper, Yoho, Waterton Lakes, and Theodore Roosevelt. The point of my project is to display how beautiful our earth is. I want to inspire others to want to explore the world and take care of it. Since we are currently experiencing a climate crisis, I also provide information on the wildfires that have happened in the Canadian National Parks this year and in the past. Since these wildfires are caused mainly by climate change, I provide tips on how people can help fight climate change and reduce their carbon footprint.

Everyone has a role in the climate's effect on the earth, whether we realize it or not. If everyone were to make a small change in their life to help fight climate change, we could make a huge difference. I hope that my video can show people how amazing the world is and that if we don't start to take care of it, we will cause so much further damage to the world.

Josie Ludwig

Dynamic Dentistry

Location: W7



Going to the dentist can be an unsettling experience for many, but for individuals with sensory sensitivities, such as those with autism or sensory processing disorder, it can be overwhelming. The discomfort of traditional dental tools, particularly the scraping sensation, often deters people from seeking essential dental care. Despite advancements in technology, modern dental instruments have remained largely unchanged since the mid-1950s. It is crucial to develop a tool that maintains effectiveness while improving comfort, ensuring that dental care is accessible to everyone.

For my capstone project, I conducted detailed research to analyze the essential functions of current dental tools and explore ways to redesign them for a more tolerable experience. By applying modern engineering principles, I have developed a prototype that maintains the effectiveness of traditional instruments while reducing discomfort. This innovation has the potential to make dental care more inclusive, allowing individuals with sensory sensitivities to receive proper oral hygiene without unnecessary distress.

Emma Massimino

*Antibiotic-Resistant Bacteria:
the Dangers and Prevention*

Location: N2



I conducted research and developed a detailed presentation exploring various forms of antibiotic-resistant bacteria. My goal is to educate others about the serious dangers these bacteria pose, the steps that can be taken to prevent their development, and the proper way to use antibiotics to minimize resistance. By understanding how these bacteria evolve and spread, individuals can make more informed decisions about their health and contribute to combating this growing public health issue.

Maya McConnell

Sports Psychology

Location: Gym



My capstone project focuses on sports psychology, a topic I am deeply passionate about as an athlete constantly striving for improvement both in practice and daily life. To gain a deeper understanding of the field, I conducted extensive research by reading books, analyzing articles, and watching videos on sports psychology. My primary goal was to explore how it impacts doctors, athletes, and coaches. As part of my research, I had the opportunity to interview Jason Enloe, the former head coach of the Southern Methodist University men's golf team. He shared his perspective on sports psychology, explaining how it enhanced his coaching and strengthened his relationships with his players. His athletes recognized the value of mental training and took the initiative to work with sports psychologists to improve both their performance and personal growth.

One of the key takeaways from my interview with Jason was the realization that all sports require a strong mental component in addition to physical skill. He emphasized how athletes under pressure could rely on the techniques outlined by sports psychologists to perform at their best. This insight gave me a greater appreciation for both athletes and their coaches. I compiled everything I learned and presented my findings on a poster, showcasing the profound impact of sports psychology. Through this project, I gained valuable knowledge not only about becoming a better athlete myself but also about supporting other athletes in their pursuit of excellence.

Catherine Moriarty

Tanning Isn't Worth the Risk

Location: N4



This project focuses on the dangers of tanning beds and how they can significantly affect your skin health. I'll be discussing the serious risks associated with indoor tanning, including how it increases the chances of developing skin cancer, particularly melanoma, as well as causing premature aging and damaging your eyes. While tanning beds continue to be popular, despite the well-known risks, many people still choose to use them without fully understanding the potential harm. My goal in this presentation is to raise awareness about the real dangers of tanning beds, address common myths, and offer safer alternatives for achieving a tan while still maintaining healthy skin.

I will also highlight the issues surrounding the accessibility and popularity of tanning beds, especially among young people, and discuss the lack of sufficient regulation in some areas. Through alarming statistics, I will show how widespread the use of tanning beds is and its connection to the rising rates of skin cancer. By sharing this information, I hope to encourage people to make more informed, health-conscious decisions when it comes to caring for their skin. The ultimate goal of this project is to help individuals understand the risks of indoor tanning and promote safer ways to achieve the desired appearance without sacrificing long-term skin health.

Emillie Mountain

*Looking Back to Move
Forward*

Mentor: Kristi Walsh

Location: W15



“Looking Back to Move Forward” is a series of short stories that are all connected through the central theme of anxiety. I went into this capstone project knowing that I wanted to create something that really reflected myself and my life. My anxiety has affected every facet of my life every day, and so I made this series with the hopes that I could maybe make people understand what it’s like to be in a constant state of overthinking. One other aspect I wanted to include in my project was a variety of story structures and genres, as I wanted to step outside of my box and experiment a bit with my writing. Each of the four stories in the series has either a unique story structure or genre.

E Mullins

Yvain, ou le chevalier de lion

Mentor: Sylviane Bonino

Location: Gym



“Yvain, ou le chevailier de lion” follows the knight Yvain, in his quests of knight-errantry, which lead him quickly to finding a lady. Conflict arises, however, when Yvain breaks a promise to return to his lady, Laudine, and he feels unable to return to her.

“Yvain” is a classical Arthurian poem written by Chrétien de Troye sometime between 1177 and 1181, in 6,808 octosyllabic rhymed couplets. As one of the earliest works in the Arthurian tradition and as a romance (rather than a “history”) the poem creates a good starting point, alongside de Troye’s other romances, for those new to the Arthurian tradition. It also happens to be one of my favorite Arthurian poems.

Ella Munz

LOADED

Mentor: Dan Munz

Location: Gym



For my capstone project, I created a business proposal for opening a restaurant in St. Louis. Using a real building in the city, I factored in rent prices, location, and market research to determine the total costs and future expectations for the business. My restaurant, *LOADED*, is a trendy and interactive dining experience centered around potatoes. Customers can choose from a variety of potato styles and customize their meal with an array of toppings and sauces. In addition to developing the business plan, I designed a full menu and reimagined the interior layout of the restaurant to create an inviting atmosphere.

The food industry has always been something I wanted to explore, and this project provided me with an in-depth learning experience. With guidance from my dad, a former banker, I gained valuable insight into the financial aspects of launching a business. Through this process, I not only expanded my knowledge of restaurant operations but also developed a greater appreciation for the work that goes into bringing a business idea to life.

Kira Noor

*The Science Behind
Meteorology*

Mentor: Steve Templeton

Location: Media Studio



I had the opportunity to interview Chief Meteorologist Steve Templeton and tour his studio at KMOV-TV, which provided me with valuable insight into the field of meteorology and the responsibilities that come with this career. During our discussion, he shared his experiences, offering advice on the skills and dedication required to succeed in the profession. He also provided a detailed explanation of the science behind weather forecasting, including the technology and tools meteorologists use to predict and communicate weather patterns accurately.

Edith O'Gorman

Hematology Lab

Location: STEM 4



This past summer I interned in a hematology lab at Washington University in St. Louis. At the lab, I learned how to make, fill, and read DNA gels and Western blots. I learned the process of genotyping mice and separating white blood cells out from a donor's blood. I was introduced to lab equipment, taught how to read graphs, and observed researchers up close.

I plan on majoring in Chemistry and going into cancer research later in life, so this was a fantastic experience. My project today is meant to educate others on the basic process of researching cancer and to discuss what I learned while in the lab.

Sophia Oldani

Stories of Strength: A Little Free Library of Native Voices

Location: Gym



From an early age, I was captivated by storytelling—not just the act of telling stories, but the power of truly listening to them. I loved reading with my parents before bed, and I quickly realized that the most meaningful stories give voice to perspectives that often go unheard. My love for literature deepened over time, but it was a life-changing service trip to the Northern Cheyenne Boys and Girls Club that truly solidified this belief. While working with the kids at their summer camp, I was struck by their constant joy, despite our vastly different backgrounds. That joy, I realized, came from feeling heard, seen, and valued. Throughout the week, I listened to their stories—stories about their lives, friendships, and culture—each one reinforcing the importance of representation and connection.

This experience left a lasting impact on me and strengthened my desire to give back to the communities that have shaped my own life. Having experienced firsthand how literature can inspire and empower, I wanted to create something that would foster that same sense of connection for others. That's when I decided to establish a Little Free Library at their facility—an accessible space filled with books that celebrate Native characters and culture. I carefully curated each title using library resources and online databases, ensuring a diverse and meaningful collection for readers of all ages. It was important to me that this library reflect the richness of Native storytelling, offering the same inspiration and sense of belonging that books have always provided me.

Presley Parker

Voices In Scrubs

Location: EAC4



The *Voices in Scrubs* podcast is dedicated to exploring the personal and professional journeys of nurses. Through candid conversations, listeners gain insight into the challenges, triumphs, and moments of resilience that define a nursing career. From the initial spark of interest in the profession to the realities of working in fast-paced healthcare environments, this podcast highlights the human side of nursing, offering an authentic perspective on the field.

Designed to inspire future nurses and educate the public, *Voices in Scrubs* aims to deepen understanding of the profession while strengthening the nursing community. The podcast provides valuable information about different nursing specialties, helping listeners determine which path might be right for them.

Allyson Pierce

The Process of Choreography

Location: E2



This project is a documentary-style deep dive into theater and choreography, from community to professional levels. My project details the training and audition processes and the rehearsals for performances. Through interviews and footage from rehearsals, I explain the process of how choreography is created, and how it is pieced it together with music, spacing and timing.

Dance has always been my passion. I have been dancing since the age of three and as I got older, I also found interest in musical theater and the stage. I feel most like myself on the stage and even if I do not pursue it as a career, it will always have a special place in my heart. This documentary demonstrates that it is a truly long and hard process, but worth it in the end because it creates art.

Nadia Ricketts

A Hat for a Hat

Location: Gym



As I've grown, my commitment to giving back has deepened, becoming intertwined with my passion for crochet. This led me to create *A Hat for a Hat*, an initiative that blends creativity with compassion. What began as a small project with a goal of donating just five hats has evolved into something much greater. Now, for every hat I crochet and sell, I donate one to *Nurses for Newborns*, a foundation that supports families in need by providing essential items for the health and well-being of their babies. The mission is simple yet meaningful: for every baby or adult hat sold, one is gifted to a newborn in need. Through this initiative, I hope to not only warm heads but also hearts.

Why hats? For me, crocheting is more than just a hobby—it's a way to connect with and uplift others. There's something deeply personal about creating something by hand that brings comfort to someone else. Hats symbolize warmth, protection, and care, especially for newborns. These small gestures of kindness reassure new families that their community supports them. In collaboration with *Nurses for Newborns*, my initiative has already distributed dozens of hats to families across the region. Each hat is carefully handcrafted with love and purpose, knowing it will help a baby in its earliest and most vulnerable stage of life. By combining my passion for crochet with community service, I've been able to transform my craft into a force for meaningful change.

Analucia Romero

Pop It Rosaries

Location: Gym



I love the rosary; it has made a profound impact on my life. I have found that praying the rosary daily has brought me closer to the Lord and helped me grow tremendously in my Catholic faith. In 2021, I went on a mission trip to the Dominican Republic which changed my life. In my time there I met a congregation of sisters who serve the impoverished community of Valiente. They serve the community with food and clothing donations as well as spiritual formation. The Franciscan sisters I met in Valiente, DR were very devoted to the rosary and helped me realize how powerful it is. I want to help this community with donations since the sisters are serving so many families and are constantly needing donations for their cause. Furthermore, I want to share this gift of the rosary with the Nerinx community.

The product I will be selling is a fun and unique product that will also provide a way for people to grow in a devotion to the rosary. Pop Its are a very popular toy these days; virtually no teen can resist the temptation to play with these satisfying fidget toys! So, what if we could use this trend to encourage Catholic teens to grow deeper in their faith? Introducing Pop It rosaries!

The plan is that the profit from selling this product will go to the cause that will help feed and provide other needs for families in the Dominican Republic. Since I am interested in exploring a career in a non-profit organization, this will be an excellent way to grow familiar with a business model while also serving communities.

Kate Schaller

A Freshman's Guide to Nerinx Hall

Mentor: Bridget Andrews

Location: Gym



For my capstone project, I made a resource for the incoming freshmen called *A Freshman's Guide to Nerinx Hall*. It is an online booklet that can be printed if needed. In the guide, I provide basic information about the school, tips to succeed, and so much more. It includes everything from ways to get involved and the daily schedule to our annual dances and traditions.

I was inspired to make this resource because I am a Marker Mentor, which entails helping at Freshman Orientation. I loved introducing the incoming freshmen to a new phase of their life, and through my experiences, I have learned that it is very nerve-wracking to start something new, especially high school. Many incoming freshmen are unsure of what to expect because they are stepping into a completely new environment. My purpose for the booklet is to give them an idea of what it's like to be a Nerinx student and maybe answer any immediate questions they may have. I believe it is important for them to feel as comfortable as possible, and I hope this booklet will help!

Ella Schuermann

*Communicating With Special
Needs Children*

Location: Gym



My capstone project focuses on improved communication with children who have special needs by exploring effective methods and strategies backed by research. It addresses challenges faced by caregivers, educators, and therapists when interacting with children with conditions such as autism spectrum disorder (ASD), Down Syndrome, and speech-language impairments.

This project provides evidence-based approaches such as augmentative and alternative communication (AAC), applied behavior analysis (ABA), sensory integration techniques, and play-based therapy. My ultimate goal is to teach others how to effectively communicate with special needs kids and show that it is an opportunity for connection, best approached with empathy and understanding.

Helena Seher

*Digital Sculpting With 3D
Modeling Software*

Mentor: Will Hulse

Location: IP Studio



This project consists of learning new software applications for the development of 3D objects and their surrounding environments. Using free, state-of-the-art tools accessible to the public, my personal aim is to gain the ability to create digital sculpture in preparation of my career in animation and visual effects.

Keeghan Siems

*Limiting Unnecessary Waste in
the Nerinx Cafeteria*

Location: Gym



Through my project I'm hoping to limit the unnecessary waste within our school's cafeteria. So much effort has been put into limiting our food waste and waste made throughout our lunches by both our cafeteria staff as well as our administration. Unfortunately for everyone, sometimes our carefully chosen utensils and strategically purchased plates find their way into our trash and recycling bins. On the other hand, our few single use plastics tend to end up in our designated compost and recycling bins. But as you may know, this is not because our chip bags and forks grew legs and walked themselves there, it is a combination of people not knowing where this waste goes, and simply not taking the time to put it where it belongs.

For my project, I worked with our communications team to print posters that would provide an easy guide for the waste disposal areas in our cafeterias in the hopes that our recyclables reach the recycling, our compost reaches the composting, and that the little amount of trash we do have, doesn't do any contaminating. Additionally, I wanted to provide more information about what waste in schools looks like on a wider scale to facilitate continuous and proper disposal of our waste, and what that means as a green ribbon school.

Caroline Smith

Music Psychology

Location: T4



In my project I researched the background of music psychology and how it impacts people's daily lives. I studied how music affects our mind, emotions, and behavior. It also combines ideas from psychology, neuroscience, and music to understand why we connect with music the way we do.

My project looks at how we process things like rhythm, melody, and harmony, how music triggers emotions, and how it can help us manage stress or improve our mood. Music also brings people together socially and plays a big role in cultural identity. From helping kids develop skills to aiding people with memory loss or physical recovery, music has a lifelong impact. Music psychology is very important because it shows how music is more than entertainment, it's a tool for learning, healing, and connecting with others.

Lily Steiner

Letters, Love Lily

Mentor: Sarah Sidney

Location: Gym



Letters, Love Lily is a small, locally owned business selling handmade greeting cards for various occasions such as birthdays, holidays, weddings, and thank you's. It was created out of my love for giving personalized gifts and I wanted to share that with others. Each card I make is carefully crafted and fully hand drawn, which offers a personal touch to your gifts. Customers can personalize their cards as well as request completely custom designs to give a unique and meaningful gift to their loved ones. With a focus on quality, creativity, and personalization, *Letters, Love Lily* stands out as a heartfelt alternative to traditional greeting cards.

Luci Vermillion

Mock Business Plan

Mentor: Justin Vermillion

Location: Library



My project is a mock business plan that shows everything needed for a hypothetical addition to my father's business. It shows all supplies, land, and labor needed as well as the corresponding costs.

Samantha Wentz

Modular Storage Units

Mentor: Phil Wentz

Location: Gym



For this project, we built four separate storage units. These were built from sheets of plywood and were completely self-designed and constructed. Two of these units comprise shelves for easy storage and two are built to hold hanging clothes. A priority was to create a clean, simple look for these units; therefore, we used an interlocking dado method to create seamless edges, also referred to as a drawer joint. This method also ensured that there were no screws holding the overall structure together, further creating a clean look. The modular design allows for easy transportation. Creating smaller units also allows flexibility in terms of placement. They look great all together in a bedroom, but one or two would also fit perfectly into a dorm room. Overall, this project created a completely custom method of storing clothing, or any other items, in any location.

Clara Willers

Portraits of my Family Tree

Location: Gym



I am telling stories of significant, remarkable, and interesting members of my family. Through extensive research and interviews with living family members I will be telling the stories of their lives. I have also extensively researched my family tree and will be displaying the tree as well as a map of the world that shows where my family has come from.

Amelia Wolz

*Adaptive Sports Interactive
Map*

Mentor: Jim Black

Location: Library



I created an interactive map plotting the spots in St. Louis that have adaptive sports programs. Since I was little, I have grown up watching and playing sports with people with disabilities. I believe that it is something everyone should see and have knowledge of because it will only continue to break barriers between people with and without disabilities.

My hope is that people can see the places that have adaptive sports programs, go on their website, and watch a game or event. Most of the programs have something every night on the weekdays and weekends. It is so amazing to see the accomplishments of people with disabilities that often are not acknowledged.

My stepdad who is paralyzed from the waist down has competed in the Paralympics and he inspired me to create this map. He has shown me that his disabilities are only an ability. I hope everyone can become more knowledgeable through my capstone project!

Ava Yu

Where did you go to High School?

Location: Library



We're often asked where we went to high school. But what is the meaning behind this question? Private, Catholic, same-sex high schools are a staple piece of St. Louis culture. The popularity allows for the connection and separation of high school students across many generations. With three different high schools represented in my immediate family, I felt it was important to understand the uniqueness of my education. For my project, I researched the start of catholic education in St. Louis and how it has continued to the present day. Catholic schools are the result of various religious orders and the Archdiocese catering to the lower class. For many years St. Louis lacked academic institutions, leaving many families in a cycle of poverty. Fast forward to the present day, a big part of the story is how and why the schools show up in the media. I was lucky enough to be featured in the 2022 St. Louis Magazine Private School Handbook. It was eye-opening to see how each school prepares its students for the future. Additionally, the high schools have a large presence on social media, thus impacting enrollment. I guess one could say I'm on the 'St. Louis side of TikTok'. I owe so much to my Nerinx education. It was inspiring to learn about how Nerinx and other catholic schools came to be. I now know how special the question of where you went to high school is.

