

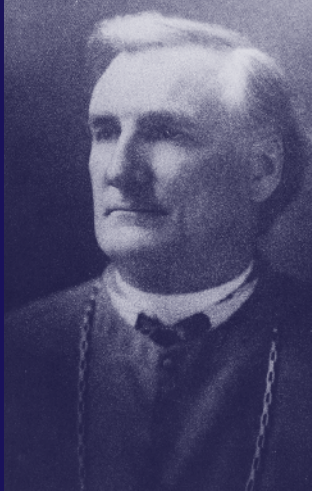


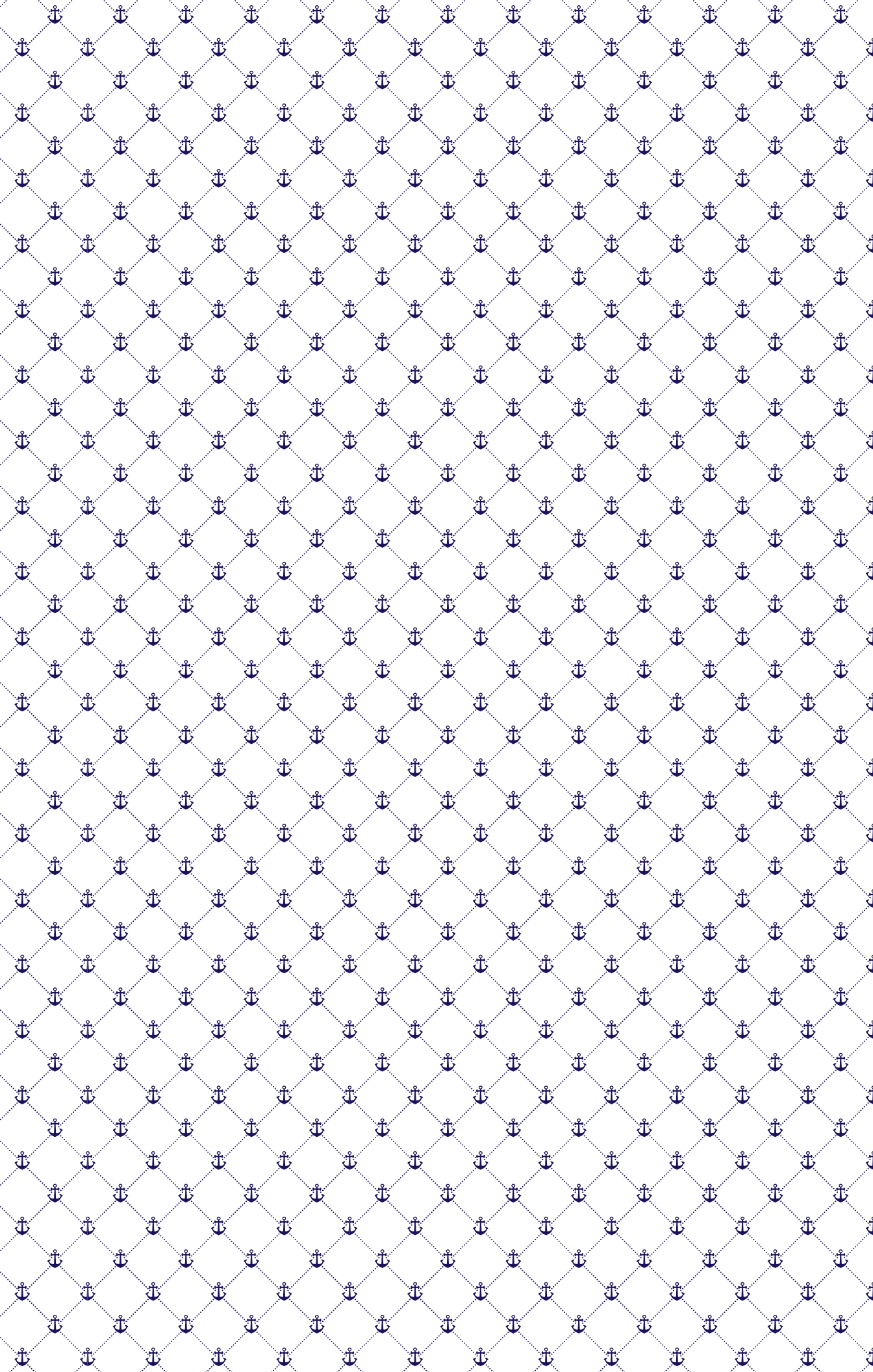
UNIVERSITY OF PORTLAND

SCHEDULE OF EVENTS

FOUNDERS' DAY

TUESDAY, APRIL 12, 2016





Founders' Day is when the University of Portland pauses to celebrate its rich past and its promising future: the past as we honor the bold leaders — Archbishop Alexander Christie and Father John Zahm — who dared to dream of a Catholic university overlooking the Willamette River; the future as we learn from our most outstanding students whose research as undergraduates portends great things for the future. In recognition of the importance of both the past and the future, the University holds no classes on a Tuesday in April and instead opens its doors to all to learn from our best and brightest students.

Founders' Day was first celebrated in the spring of 1902 following the completion of the first academic year in recognition of Archbishop Christie and Fr. Zahm's vision and determination. It quickly became a tradition. Archbishop Christie would ride his horse, Dandy, to campus from Portland each spring in order to give a lecture to the young men composing the student body. And then based on his authority as the Archbishop, he would cancel classes for the remainder of the day. With his death in 1925, the tradition also ended.

Founders' Day was revitalized in 2001 as a part of the University's centennial celebration. It has continued to grow since then and now is kicked off with an awards breakfast for graduating seniors, followed by senior presentations, undergraduate research, panel discussions, recitals, and the Scholarship Luncheon, where students who receive financial aid from scholarships meet the benefactors whose generosity has helped them attend the University. Classes scheduled to begin after 4 p.m. meet at their regularly scheduled times.

Presentations

- 3-6** Session I 10:15-11:05 a.m.
- 7-11** Session II 11:15 a.m.-12:05 p.m.
- 11-15** Session III 2:15-3:05 p.m.
- 16-18** Session IV 3:15-4:05 p.m.

Poster Sessions

Students will be by their posters during the noted poster presentation session, but the posters will remain up all day.

- 19-20** 10:15-11:05 a.m.
- 20-22** 11:15 a.m.-12:05 p.m.
- 22** 2:15-3:05 p.m.
- 23-24** 3:15-4:05 p.m.

Session I 10:15 - 11:05 a.m.

- **College of Arts and Sciences | Environmental Science** **Franz Hall 206**
“Clean-up the Willamette: An Overview of the Portland Superfund Site.”

This presentation gives an overview of the contaminants in the water and sediment present in the Portland Harbor Superfund site. We discuss the historical sources and pathways of contaminants and examine the scope and cost of cleanup alternatives, technologies, the environment and future generations, face post remedial action, as well as suggest alternatives with regards to preventative measures.

Presented By: Junjie Chen, Daniel Donahue, Jordan Garahana, Andy Holstrom, Kristen Jakstis, Luke Kemp, Chloe Ryan, Calli VanderWilde, Mariah Wallace, and Samantha Wright
Faculty Sponsor: Steven Kolmes and Russell Butkus

- **College of Arts and Sciences | International Language and Cultures** **Franz Hall 026**
“Expand Your World: Combining Language Study with a Second Major.”

In this panel discussion, students majoring in French, German, and Spanish talk about how they have combined their studies in language and culture with other disciplines. They share their experiences, think about life after graduation, and reflect on the doors that language study have opened for them. We will end with questions and discussion with the audience.

Presented By: London Ballard, Mackenna Krohn, Paul Munn, Dylan Vahradian, Elise Willey, and Hannes Zetzsche
Faculty Sponsor: Alexandra Hill

- **College of Arts and Sciences | Mathematics** **Franz Hall 034**
“PIC Math Presentation: Using Phylogenetics to Characterize Antimicrobial Resistance.”

Antimicrobial resistance is a significant and growing problem across the globe. Here we employ phylogenetic and mathematical techniques to better understand the origin of antimicrobial resistant elements in sequenced genomes of Salmonella isolates taken from pediatric patients in Kenya. As knowledge increases about how such resistances have developed, more effective treatments can be developed.

Presented By: Elise Christoferson, Michalah Leffler, and Taylor Spooner *Faculty Sponsor: Hannah Callender*

- **“PIC Math Presentation: Optimization of Hydroelectric Power Generation in the Pacific Northwest.”**

Since over half of our power in the Pacific Northwest comes from hydroelectric sources, yet only 30 percent of the annual river flow volume is able to be stored at a particular dam, optimal planning of water usage is crucial. In this study, we have improved upon an existing hydro system model containing about forty dams and used it to find why some of the demands of power cannot be met by a dam.

Presented By: Lucas Burns, Brandon Sit, and Nicole Statler *Faculty Sponsor: Hannah Callender*

- **“PIC Math Presentation: Minimizing Antibiotic Resistance with Diagnostic Deployment: A Cost-Benefit Analysis.”**

Presented By: Alexa Carr, Alicia Feryn, and Todd Graham *Faculty Sponsor: Hannah Callender*

- **College of Arts and Sciences | Philosophy** **Franz Hall 006**
“An Ontological Analysis: Edith Stein’s Pursuit of Being in ‘Knowledge and Faith’.”

Presented By: Jessica Brown *Faculty Sponsor: Michael Andrews*

- **“The Role(s) of Fate in Human Existence.”**

Presented By: Jason Smith *Faculty Sponsor: Richard Askay*

- **“A Philosophical Reflection of Kierkegaard’s Philosophy.”**

Presented By: David Kennedy *Faculty Sponsor: Richard Askay*

Session I 10:15 - 11:05 a.m.

▪ College of Arts and Sciences | Political Science Buckley Center 103

“University of Portland Mock Trial presents State of Midlands v. Avery Bancroft and Chase Covington.”

On April 19, 2015, officers from the Midlands State Police Department arrested Chase Covington, the chair of the Midlands Gambling Commission, and Avery Bancroft, a local businessperson, on suspicion that Bancroft bribed Covington in an attempt to procure Covington's support for a new casino license. You be the jury as the UP Mock Trial team tries the case.

Presented By: London S Ballard, Katherine Miller, William Gunnels, Jacque Nelson, Natalie Hagen, Kathryn Murdock, Remington Ziems, Anna Robertson, Sitara Nath, Kelsie McKee, and William Lapachet
Faculty Sponsor: Bill Curtis

▪ College of Arts and Sciences | Sociology Franz Hall 223

“Influences on Risky Sexual Behavior in Adolescence.”

Presented By: Montana Gay *Faculty Sponsor: Martin Monto*

“Socioeconomic Status and Deterrents to Cycling in Multnomah County.”

Presented By: Jack Greenwood *Faculty Sponsor: Bryan Rookey*

“The Untested Rape Kit Crisis: Inattention or Logical Exclusion?”

Presented By: Erin Bell *Faculty Sponsor: Martin Monto*

▪ College of Arts and Sciences | Theology Franz Hall 015

“Woman, Why Are You Weeping?: Mary Magdalene and The Power Dynamic of Dis/Belief In John's Resurrection Account.”

What does it mean to “believe” something? How does belief affect us individually and as a community? Using a largely feminist exegetical lens, this presentation explores Mary Magdalene's encounter with the risen Jesus, her return to the disciples, and the Gospel of John's ambiguous language depicting the power behind the human decision to believe or disbelieve.

Presented By: Geoffrey Sasser *Faculty Sponsor: Rene Sanchez and Sr. Kathleen McManus, O.P.*

▪ Pamplin School of Business Buckley Center 110

“Rejuvenation Market Research.”

Rejuvenation is a Portland based company that specializes in refurbishing antique and vintage house parts. Students enrolled in BUS 370: Market Research class explored Rejuvenation's market segment, analyzing its target market and product offerings through primary and secondary research in order to answer key questions proposed by Rejuvenation.

Presented By: Amber Turnidge, Ali Gay, Drew Haugen, and McKenzie Strickland *Faculty Sponsor: Ian Parkman*

▪ Pamplin School of Business Buckley Center 104

“Cathedral Coffee Marketing Research.”

Market research findings on Cathedral Coffee.

Presented By: Allison Zimmerman and Katie Richmond *Faculty Sponsor: Ian Parkman*

▪ Pamplin School of Business Franz Hall 214

“Backwoods Brewing: Operation Pay Back the Parents by Christmas.”

A team of students works with Backwoods Brewing to research how best to pay back the principle investors: their parents. In addition, Backwoods is highly interested in implementing health benefits for their employees and families. After meeting with the owners and thorough research, the students presented their findings along with recommendations to the CEO and CFO of Backwoods Brewing.

Presented By: Nathan O'Farrell, Anna Murphy, Francie Casdia, Allysia Lesmana, and Joe Mahan
Faculty Sponsor: Mark Meckler

Session I 10:15 - 11:05 a.m.

▪ Pamplin School of Business Franz Hall 205

“Factors Influencing Retention Rate in Higher Education.”

We used descriptive and predictive analytics to investigate the trends/patterns that exist in the college admissions process along with what factors impact retention rate and we applied data mining techniques on 7805 public and private 2-year and 4-year institutions in the U.S. and over 1729 variables collected by the US Department of Education.

Presented By: Janelle Li, Mace Provost, Claire Moberly, and Jackie Welland
Faculty Sponsor: Naveen Gudigantala

▪ School of Education Franz Hall 222

“Ethics for Elementary School Students.”

Elementary school students are arguably the most natural philosophers, as they are constantly curious and not afraid to ask questions. This project combines education and philosophy, by exploring the effects of teaching third graders ethics through literacy and philosophical discussions. This project was a part of the 2016 Dundon-Berchtold Fellowship Program.

Presented By: Natalie Janson *Faculty Sponsor: Rich Christen*

▪ School of Education Franz Hall 231

“Impact of Teacher Feedback.”

Timeline of developmentally appropriate feedback, ranging from early elementary to middle school. Presenters will examine what effective feedback looks and sounds like, as well as illustrate the impact of feedback on student achievement.

Presented By: Andrea Frates, Jacqueline Lurch, Allyson Edwards, and Lonnie Gillilan
Faculty Sponsor: Hillary Merk Gaudio

▪ Shiley School of Engineering Shiley Hall 101

“UV Disinfection of Collected Rainwater.”

A multidisciplinary team was challenged to design & analyze an autonomous solar disinfection system that would be used to treat water to 95% disinfection of collected rainwater in Portland.

Presented By: Maryna Feldberg, Alexis Hepworth, Maddy Muller, and Erin Yett
Faculty Sponsor: James Male and Heather Dillon

“MARS LIDAR Terrain Mapping.”

The Multi-unit Autonomous Robotic System (MARS) is an ongoing project designed to demonstrate the feasibility of mining resources on Mars by participating in the Robotic Mining Competition (RMC). This team will achieve terrain mapping for the MARS robot by utilizing a LIDAR unit and data processing within a single board computer to extract obstacles.

Presented By: Sully Cothran, Lysa Pinto, Jaimiey Sears, Ben Stager, and Taylor Stadel
Faculty Sponsor: Wayne Lu, Deborah Munro, and David Laning (Industry)

▪ Shiley School of Engineering Shiley Hall 123

“3D Force Sensing Treadmill.”

The purpose of this project is to sense and display the three-dimensional force exerted by a person running on a treadmill. This project focuses on sensor integration, data collection, data analysis, and biomechanics.

Presented By: Abdullah Alradadi, Reid Buchanan, Ben Forsee, Tyler Honsinger, and Anthony Prom
Faculty Sponsor: Deborah Munro, Robert Albright, and Martyn Shorten (Industry)

“Solar Rankine Cycle Project.”

Over the course of two semesters, the team designed and constructed a Rankine cycle consisting of a pump, turbine, strip heaters (to simulate energy input from a solar water thermal system), and condenser that uses the refrigerant R-134a to generate power as part of a larger renewable energy system.

Presented By: Hollis Crowder, Andrew Jacobs, Ethan Stansfield, and Alex Zielinski
Faculty Sponsor: Heather Dillon, Khalid Khan, and Becca Baldwin (Industry)

Session I 10:15 - 11:05 a.m.

▪ Shiley School of Engineering

Shiley Hall 124

“Parkinson’s Assistive Device.”

This project is developing a wearable, passive assistive device to allow individuals with Parkinson’s disease to eat and drink with reduced hand tremors.

Presented By: Daniel Anderson, Ryan Cebula, James LeGresley, Jake Oberdank, and Brett Screechfield
Faculty Sponsor: Aaron Weast (Industry) and Tim Doughty

“EMG Smart Music Band.”

The EMG Smart Music Band team is programming and designing an arm band which holds an Android phone and allows the user to play, pause, and skip songs by simply flexing his/her bicep.

Presented By: Emily Nitzberg, Kostas Urnezus, and Tori Zellerhoff
Faculty Sponsor: Deborah Munro and Mac Lang (Industry)

▪ Shiley School of Engineering

Shiley Hall 301

“ASCE-AISC Steel Bridge Project.”

The Steel Bridge Team is entering the ASCE-AISC Student Steel Bridge Competition, which assess students’ ability to design, fabricate, and construct a 1:10-scale steel bridge with adequate strength and stiffness. The bridges will be judged on construction time, weight, strength, stiffness, and aesthetic appeal.

Presented By: Michael Corpus, Shannon Danforth, David DiLoreto, Torin Kubo, and Dillon Zang
Faculty Sponsor: Matthew Kuhn and Matthew Miller (Industry)

“Evaluation of Secondary Treatment Capacity at the Tryon Creek Wastewater Treatment Plant.”

A mathematical model was developed and calibrated to simulate the performance of the activated sludge treatment process at the Tryon Creek Wastewater Treatment Plant in Lake Oswego, OR. This model was then used to predict the ability of the activated sludge process to accommodate future wet weather flows while still meeting discharge requirements protecting Willamette River Water Quality.

Presented By: James Dunbar, Sean Gestson, Brenna Harrington, and Clayton Stahnke
Faculty Sponsor: Mark Kennedy and Paul Suto (Industry)

▪ School of Nursing

Buckley Center Auditorium

“Moral Distress among baccalaureate nursing students: A multi-site descriptive study.”

This presentation will provide findings from a three-site study (U of Portland, Seattle Pacific U and Indiana U) which measured: (a) Moral Distress among baccalaureate nursing students (n=267), (b) Clinical Scenarios contributing to Moral Distress, and (c) Reasons students did not speak up during distressing situations. Recommendations for future nursing education & research will be discussed.

Presented By: Austin Smith and Conor Livingston *Faculty Sponsor: Lorretta Krautscheid*

“Elder Abuse Defined: Current Legislation and the Nurse’s Role in Advocating for the Elderly.”

How does current legislation confront the issue of elder abuse? What is the registered nurse’s role in advocating for this population?

Elder Abuse describes a number of cruelties committed against seniors ages 65 and older. This may include emotional degradation, physical violence, financial exploitation, and neglect. Relatively little legislation has been passed to address the issue.

Presented By: Regina Iriawan *Faculty Sponsor: Laura Mood*

Session II 11:15 a.m. - 12:05 p.m.

▪ College of Arts and Sciences | Biology

Shiley Hall 319

“Sperm whales (*Physeter macrocephalus*) in the nearshore waters of Washington and Oregon.”

Sperm whales (*Physeter macrocephalus*) are deep divers that use many different types of clicks to echolocate and find prey. We conducted passive acoustic monitoring on the coasts of WA and OR to determine sperm whale behavior in coastal waters. Our results correspond to previous knowledge of migratory patterns of these endangered male sperm whales.

Presented By: Lauren Arkoosh *Faculty Sponsor: Tara Maginnis*

“The ethological use of trash by the intertidal crab *Hemigrapsus nudus*.”

Despite the global prevalence of trash in our oceans, we know very little about how it affects animal behavior. We explored the habitat preferences of a cosmopolitan grapsid crab, *Hemigrapsus nudus*. Using models that included driftwood, sand, rocks, plastics, Styrofoam, and glass, our results revealed that these crabs show no preference for natural vs. non-natural substrates.

Presented By: Luke Kemp *Faculty Sponsor: Tara Maginnis*

“May the Force be with you: The physics of autotomy.”

Autotomy is the ability to shed an appendage and research has repeatedly demonstrated that this is a costly event. Thus, animals should only autotomize when the alternative is death. Although this makes sense, there has been no data for “how much is enough” to induce autotomy. We quantified the total force needed for autotomy and reveal how this force correlates with natural populations.

Presented By: Stephanie Rager and Jake Williams *Faculty Sponsor: Tara Maginnis*

▪ College of Arts and Sciences | Communication Studies

Franz Hall 223

“Frankly, my dear, the movies are still a cultural site of significance.”

Presented By: Megan Rossman *Faculty Sponsor: Alexa Dare*

“Managing online identities: A ‘sense of self’ on social networking sites.”

Presented By: Jake Hanna *Faculty Sponsor: Alexa Dare*

“Bridging the gap between Americans and the Gap Year: Cultural meanings and long-term travel.”

Presented By: Marina Choy *Faculty Sponsor: Alexa Dare*

“Communicating compassion: Emotional labor in homeless services.”

Presented By: Elizabeth Miranda *Faculty Sponsor: Alexa Dare*

▪ College of Arts and Sciences | English

Franz Hall 026

“Queer Ecology in Whitman’s ‘Calamus’ and Blanco’s ‘One Day’”

Presented By: Griffin Hay *Faculty Sponsor: Lars Erik Larson*

“Delivering Voltage to Tempered Voices: An Exploration of Feminist and Linguistic Challenges in Nuala Ni Dhomhnaill’s ‘Fuadach’”

Presented By: Lucy Kelly *Faculty Sponsor: Genevieve Brassard*

“Art, Trash, and Collecting: The Treatment of Objects in Kazuo Ishiguro’s ‘Never Let Me Go’”

Presented By: Danielle Childs *Faculty Sponsor: Cara Hersh*

Session II 11:15 a.m. - 12:05 p.m.

- College of Arts and Sciences | Environmental Science Franz Hall 206

“Portland Harbor Superfund Site: Responsibility and restoration planning towards a balanced biotic community.”

Analysis of the effects on both resident and migratory wildlife along with impacts on human health. This study looks at the various ethical considerations towards the wildlife and humans that are affected by the contaminants in the Lower Willamette. Additionally, we will propose possible restoration plans and preventative measures to achieve an ecologically and socially healthy biotic community.

Presented By: Tony Aguilar, Thomas Dempsey, Brooke Holmes, Eliot Jost, Brady Kerr, Yannika Marquardt, Gabrielle Martinez deCastro, and Shelby Walsh

Faculty Sponsor: Steven Kolmes and Russell Butkus

- College of Arts and Sciences | Mathematics Franz Hall 034

“PIC Math Presentation: A GPS Generator Tool for Modeling Runs.”

Software developers need easy to work with, easy to access GPS coordinates of people on runs in order to test and validate software designed to track a runner's route and provide accurate analysis of each run. We have developed a model in Python that outputs GPS coordinates to realistically model an individual person's run so that engineers can test their software quickly and inexpensively.

Presented By: Matt Hino, Courtney Kennedy, and Brian Satterthwaite Faculty Sponsor: Hannah Callender

- College of Arts and Sciences | Performing and Fine Arts Mago Hunt Recital Hall

“Music Program Honors Recital.”

Join us as six of our most outstanding students perform in this special Founders' Day recital! This year's honorees are Nicole Benavente (voice), Alana Fouts (violin), Taylor Kendig (voice), Lauren Kulesa (voice), Haley Mukensnabl (violin), and Samantha Wright (clarinet).

Presented By: Nicole Benavente, Alana Fouts, Taylor Kendig, Lauren Kulesa, Haley Mukensnabl, and Samantha Wright

Faculty Sponsor: Patrick Murphy

- College of Arts and Sciences | Philosophy Franz Hall 006

“Medieval Political Philosophy.”

Presented By: Tyler Beyerlein Faculty Sponsor: Caery Evangelist

“Moral Philosophy and Literature.”

Presented By: Kevin Chung Faculty Sponsor: Caery Evangelist

“The Evidential Problem of Evil and the Efficacy of Soul-Making Theodicies.”

Presented By: Jason Ferguson Faculty Sponsor: Andrew Eshleman

- College of Arts and Sciences | Political Science Buckley Center 103

“University of Portland Mock Trial presents State of Midlands v. Avery Bancroft and Chase Covington.”

On April 19, 2015, officers from the Midlands State Police Department arrested Chase Covington, the chair of the Midlands Gambling Commission, and Avery Bancroft, a local businessperson, on suspicion that Bancroft bribed Covington in an attempt to procure Covington's support for a new casino license. You be the jury as the UP Mock Trial team tries the case.

Presented By: London Ballard, Katherine Miller, William Gunnels, Jacque Nelson, Natalie Hagen, Kathryn Murdock, Remington Ziems, Anna Robertson, Sitara Nath, Kelsie McKee, and William Lapachet

Faculty Sponsor: Bill Curtis

Session II 11:15 a.m. - 12:05 p.m.

- College of Arts and Sciences | Psychology Franz Hall 015

“The Role of Scent in Human Kin Recognition.”

Presented By: Kelsey Kincaid Faculty Sponsor: Mark Pitzer

“Punishment along party lines: The role of moral punishment in political friendships.”

Presented By: Talbot Andrews Faculty Sponsor: Mark Pitzer

- College of Arts and Sciences | Theology Buckley Center 310

“The Paper Christ: An Examination of John Green's ‘Paper Towns’ through the Hermeneutical Lens of Thomas Merton.”

This capstone presentation explores the process of discovering the authentic self, as described by Thomas Merton, through the young adult novel “Paper Towns” by John Green.

Presented By: Jessica Brown Faculty Sponsor: Rev. Charlie Gordon, C.S.C. and Rev. Jeff Cooper, C.S.C.

“Integral Ecology in a Sacramental Universe.”

Nature is being decimated through the exploitation of its natural resources and as a result the natural processes of the world are suffering, changing. Anthropogenic climate change demands a theological response. I shall develop a case for this response to be modeled after Pope Francis' Integral Ecology in a Sacramental Universe.

Presented By: Andrew Gottardi Faculty Sponsor: Russell Butkus and Tom Hosinski

- Pamplin School of Business Franz Hall 205

“Planting the seeds of Analytics in a Local Small Business.”

Our project enabled the growth of a small business by helping them understand their data. First, we reformatted their data to remove null values and condense the data. After reformatting the data, we created Tableau dashboards as proof of concept dashboards. Finally, we leveraged Excel Miner to create two regression to help the business model future sales and future demand for their product.

Presented By: Ben Paul and Patrick Casale Faculty Sponsor: Naveen Gudigantala

- Pamplin School of Business Franz Hall 214

“Backwoods Brewing Marketing Plan.”

We were in charge of creating a marketing and social media strategy for Backwoods Brewing in Carson, WA. Our final presentation was summarized in a paper that collected social media data, gave options for improvement and efficiency, and suggested alternatives for the future expansion of the company.

Presented By: Mike Bonacci, Gavin Flynn, Nathan DeV Vaughn, Taylor Hendricks, Sunny Lee, Marcus Giovacchini, and Matt Davis

Faculty Sponsor: Mark Meckler

- Pamplin School of Business Buckley Center 110

“University of Portland Investment Association: Annual Report.”

The student-led organization provides opportunities for students of all backgrounds to manage and analyze a real portfolio, attend national conferences, and discuss experiences with industry professionals. The annual report highlights the activities of the association, showcasing the work of students and the impact made through UPIA.

Presented By: Chris Loogman Faculty Sponsor: Brian Adams

- School of Education Franz Hall 231

“Junkyard Wonders: Inspiring All Students Through Author Study.”

This interactive presentation will explore the process of using an author study to engage all students in literacy instruction using SIOP strategies. This session will allow presenters and attendees to experience an author study together using children's author Patricia Polacco. Prepare to read and have fun!

Presented By: Anna Van Winkle, Meghan Daschel, Megan Fraser, and Nicole Hurner

Faculty Sponsor: Hillary Merk Gaudio

Session II 11:15 a.m. - 12:05 p.m.

- **School of Education** Franz Hall 222

“Teach-Knowlogy: How Technology has Influenced Modern Classrooms.”

This presentation will discuss the ways in which the teaching profession has changed due to modern advancements in technology. The session will provide you with two specific integration platforms to incorporate into collaborative learning environments. Come and learn about the role technology can play in differentiation, collaboration, and assessment.

Presented By: Molly Minder, Allison Hogan, Kaitlyn Reeves, and Blair Shanklin-Rice
Faculty Sponsor: Julie Kalnin and Hillary Merk Gauio

- **Shiley School of Engineering** Shiley Hall 124

“Vertical Axis Wind Turbines (VAWTs) on Tilikum Crossing.”

This project is working closely with TriMet to install Vertical Axis Wind Turbines (VAWTs) on Tilikum Crossing to raise awareness for green energy in an urban setting. This pilot project for wind energy in Portland will offset electricity costs and hopefully spark the creation of similar projects in the area.

Presented By: Ryan Barr, Lorea Ibarzabal, John Larson, and Adam Wozniak
Faculty Sponsor: Heather Dillon and Bob Hastings (Industry)

“MECOP Baja Dyno.”

Four mechanical engineering MECOP students constructed a fluid circuit dynamometer that is to be used to fine tune the continuously variable transmission (CVT) used in SAE Baja. The dynamometer utilizes fluid dynamics principles to correlate flow resistance with engine load.

Presented By: Mike Laskowski, Nick Pendowski, Gabriel Trainer, and Erik Whitney
Faculty Sponsor: Ken Lulay and Tim Scheumann (Industry)

- **Shiley School of Engineering** Shiley Hall 301

“Tohono O’odham Indian Health Services Project.”

The purpose of this project is to evaluate the feasibility of connecting several smaller water systems on the reservation to fix the lack of overturn in the existing tank to increase water quality and reduce costs for the citizens of the communities of Comobabi, Crowhang, Fresnal and the Tohono O’odham Community College.

Presented By: Jacob Hagen, Colleen Koenig, Jonathan May, and Amanda Thompson
Faculty Sponsor: Sharon Jones, John Kathol (Industry), and Doug Jones (Industry)

- **Shiley School of Engineering** Shiley Hall 101

“Take a Number.”

To produce software that supports the queuing of student requests and the handling of checkpoints in Computer Science labs. This project involves developing both Android and server software.

Presented By: TJ Agne, Micah Alconcel, Matthew Farr, and Nick Sohm
Faculty Sponsor: Steve Vegdahl

“Automated Nuxollian Team Scheduler (ANTS).”

This project produces software that automatically creates schedules for Dr. Andrew Nuxoll’s CS368 (Seminar) class. It takes scheduling constraints as input, and produces a schedule that meets those constraints.

Presented By: Bryce Matsuda, Caleb Piekstra, Triton Pitassi, and Jordan White
Faculty Sponsor: Steve Vegdahl, Tammy VanDeGrift, and Antoinette Ranola (Industry)

- **Shiley School of Engineering** Shiley Hall 123

“SCOPED.”

The goal of this project is to implement a novel oscilloscope design which will have easily accessible controls and a small form factor, with rough specification goals of 50V input sensitivity and a 10HMz bandwidth. This project serves a proof of concept for an Oscilloscope design. It also aims to provide an accessible model for teaching due to its simplicity and size.

Presented By: Parker Halcomb, Trent Hashimoto, Morgan Mueller, and Nathan Travanti
Faculty Sponsor: Aziz Inan and Bob Haas (Industry)

Session II 11:15 a.m. - 12:05 p.m.

- **Shiley School of Engineering** Shiley Hall 123

“The Producer.”

The Producer is a hand crafted digital keyboard controlled by a micro-controller. It features 13 keys, 3 interchangeable octaves, and analog/digital filters, which allows the user to produce a unique sound. We will be playing a variety of songs showcasing our device.

Presented By: Devon Arreola, Hunter Garcia, Connor Haas, and Justin So
Faculty Sponsor: Joe Hoffbeck and Aaron Taylor (Industry)

- **Franz Center** Buckley Center 104

“Townie Shades - Student Start Up to Real Venture.”

Townie Shades is a sunglasses business founded by senior business majors Paul Dilley and Nick Ost. This presentation will include an overview description of how they got started and have scaled to a real business venture. The majority of the presentation will focus on the valuation process for a company of Townie’s size and scope. [www.townieshades.com]

Presented By: Nick Ost and Paul Dilley
Faculty Sponsor: Peter Rachor

Session III 2:15 - 3:05 p.m.

- **College of Arts and Sciences | Biology** Buckley Center 310

“Chromosomal Gene Deletions in the TonB2 System of Vibrio vulnificus.”

V. vulnificus is a bacterial pathogen due partially to its ability to obtain iron from a number of different environments, including human hosts. Multiple proteins termed the TonB system mediate the energy needed to bring iron into the cell. Through directed mutagenesis and complementation, the functionality and essentiality of two previously unstudied genes in the TonB2 system were evaluated.

Presented By: Elena Roberts
Faculty Sponsor: Ryan Kustusich

“Immune Responses to a Potential Cancer Vaccine in a Mouse Model of Breast Cancer.”

A promising avenue for cancer therapy uses vaccines to target the patient’s immune system against the cancer. We developed and tested such a vaccine on a mouse model of breast cancer. Preliminary data show tumor shrinkage and the presence of tumor-specific antibodies after vaccination. Understanding the immune response elicited is important to further the development of these types of therapies.

Presented By: Rochelle Shih
Faculty Sponsor: Susan Murray

“The Effect of Maternal Mental Health on Maternal-Infant Interactions and Infant Temperament.”

Maternal mental health and stress impacts the quality of maternal-infant interactions. This study uses a laboratory based assessment to examine the impact of maternal mental health on maternal and infant behavior at 6 and 12 months. Increased maternal symptoms of phobic anxiety and psychosis resulted in an increased risk for cognitive and emotional problems in the infant.

Presented By: Christine Nguyen
Faculty Sponsor: Elinor Sullivan

- **College of Arts and Sciences | Chemistry** Franz Hall 034

“Cu(II) and Ni(II) complexes supported by di(phosphoryl)-appended catechols: electroactive compounds with secondary coordination spheres.”

Synthetic, spectroscopic, electrochemical, and structural studies of new copper(II) and nickel(II) o-catecholate complexes will be presented and discussed.

Presented By: Nathan Phan and Timothy Dobson
Faculty Sponsor: Eugenijus Urnezisus

Session III 2:15 - 3:05 p.m.

- College of Arts and Sciences | Chemistry Franz Hall 034

“2,5-Dihydroxy and and 2,5-diamino quinones appended with -P(O)R₂ groups: syntheses, structures, and electrochemical studies.”

Title compounds were synthesized via our previously discovered oxidative dehalogenation reactions. Our current study expanded the synthetic scope and established the limitations of our method. Electrochemistry of these compounds will be presented and discussed. They appear to be very promising candidates as catalysts for electrochemical reduction of protons.

Presented By: Madison Lear and Connor McLoughlin *Faculty Sponsor: Eugenijus Urnezius*

- College of Arts and Sciences | Chemistry Buckley Center 103

“Digital Image Processing in Chemical Analysis.”

This presentation will focus on image processing algorithms to extract quantitative chemical information from still images and videos easily captured with ubiquitous, consumer-grade scanners, cameras, or smartphones.

Presented By: Ryan Bergamo, Michelle Tran, and Nicholas Shindler *Faculty Sponsor: Kevin Cantrell*

- College of Arts and Sciences | English Franz Hall 006

“Its Melancholy, Long, Withdrawing Roar: A Traveler’s Journey to the Heart of England’s Small Island.”

Presented By: Leah Walters *Faculty Sponsor: Rev. Patrick Hannon, C.S.C.*

“On Gratitude: Extolling and Problematizing One of the Most Touted Virtues of our Generation.”

Presented By: Erika Murphy *Faculty Sponsor: Molly Hiro*

“Promise that you will sing about me’: Narration in Kendrick Lamar’s Music.”

Presented By: Ana Fonseca *Faculty Sponsor: Molly Hiro*

- College of Arts and Sciences | History Franz Hall 015

“Gender and Sexuality in Medieval Islamic Mysticism: Comparing the theologies of Ibn ‘Arabi and Al-Ghazali.”

Presented By: Emily Dovel *Faculty Sponsor: Bradley Franco*

“Confronting a German Past: Memoirs from former Deutsche Mädchen.”

Presented By: Caroline Harpster *Faculty Sponsor: Bradley Franco*

“In Pursuit of a Christian Empire: Innocent III and Papal Policy in Spain.”

Presented By: Nicholas Overton-Harris *Faculty Sponsor: Bradley Franco*

- College of Arts and Sciences | Philosophy Buckley Center 104

“Divine Command Theory Rescue Mission.”

Presented By: Madeleine Boyle *Faculty Sponsor: James Baillie*

“Desire for the Good in Socratic Moral Theory.”

Presented By: Nathan Seppi *Faculty Sponsor: Alejandro Santana*

“The Idyllic State in Plato’s Republic.”

Presented By: Dylan Vahradian *Faculty Sponsor: Alejandro Santana*

Session III 2:15 - 3:05 p.m.

- College of Arts and Sciences | Political Science Franz Hall 214

“The Dilemma of an African Soldier.”

Presented By: Jordan Paul *Faculty Sponsor: Anne Santiago*

“Citizens United v. FEC: Media, the Public and the Supreme Court.”

Presented By: Katherine Miller *Faculty Sponsor: Anne Santiago*

“Investigating the Causes and Consequences of the Arab Spring.”

Presented By: Edward Richter *Faculty Sponsor: Anne Santiago*

“The Impact of Land Politics on Women in Tanzania and Uganda.”

Presented By: Jenna Kunz *Faculty Sponsor: Anne Santiago*

- College of Arts and Sciences | Psychology Shiley Hall 319

“Cognitive Consequences of Indoor Plants.”

Presented By: Jack Greenwood *Faculty Sponsor: Mark Pitzer*

“The Effects of Mental Health Stigma on Help-Seeking Behaviors Among College Students.”

Presented By: Jenny Labrousse *Faculty Sponsor: Mark Pitzer*

“The Effects of Call of Duty: Advanced Warfare on Spatial and Numerical Reasoning Abilities.”

Presented By: Brooklyn Kozlowski *Faculty Sponsor: Mark Pitzer*

- College of Arts and Sciences | Theology Franz Hall 231

“Full Humanity as the Criterion for Ethical Action.”

This capstone presentation explores what it means to be “fully human”-for Christ, for others, and for oneself, and what that might mean for ethical action.

Presented By: Noah Banks *Faculty Sponsor: Rene Sanchez and Sr. Kathleen McManus, O.P.*

- Pamplin School of Business Franz Hall 205

“Backwoods Brewery: Managing and Maintaining a Major Move.”

Our capstone group assisted Backwoods Brewing in planning their transition into a new, larger brewing facility. We blended Project Management techniques with Quality Management tools to provide Backwoods Brewing with valuable information. We tackled issues such as critical path scheduling, PERT estimates, floor space optimization, and communication methods.

Presented By: Trevor Curran, Patrick Casale, Jordan Holly, and Kevin Vo *Faculty Sponsor: Mark Meckler*

- Pamplin School of Business Franz Hall 206

“A Kitchen Box: Strategically Rethinking a Start Up’s Target Market.”

A Kitchen Box, an Oregon based food subscription service, is designed to “build kitchen confidence” by bringing new inspiration, recipes, and kitchen tools to their subscribers. To increase subscription rates, we proposed shifting the target market to college students. Known as the “developing foodie,” this generation acts as a tremendous opportunity to tap into a brand new market segment.

Presented By: Grace Holmes, Courtney Lemon, Taylor Tobin, and Brandon Giampaolo
Faculty Sponsor: Mark Meckler

Session III 2:15 - 3:05 p.m.

▪ School of Education Franz Hall 223

“Beyond Equity Professional Development.”

This presentation explores moments in history when attempts at equality have not been the solution for people of color in schools and in society. As educators and citizens, what is our role with students and people of color who have never had their cultural experiences affirmed? This presentation will also focus on the effects of equity as a solution for people of color in schools and the world.

Presented By: Josefina Duran Faculty Sponsor: Hillary Merk Gaudio and Alice Gates

“The Underrepresentation of Minority Groups in Classroom Literature.”

This presentation explores the importance of having representative literature in school. Students of color are underrepresented in the texts used in school. Part of the presentation will explore student opinions on the importance of having diverse classroom and how those perspectives vary between schools.

Presented By: Eleanor Cruise and Louisa Lubofsky Faculty Sponsor: Hillary Merk Gaudio

▪ School of Education Franz Hall 222

“Engaging Learners through Thematic Units and Integrated Content Instruction.”

Teachers can use integrated content instruction to address the interrelations between and within subject areas, which is congruent with what students will do in the real world. In this session, student teachers will discuss the benefits of integrating content instruction, how to plan a thematic unit, and the specific ways in which they have integrated instruction to increase student engagement.

Presented By: Colleen Kane, Hailey Schiller, Tara Molina, and Abby Neville
Faculty Sponsor: Julie Kalnin and Hillary Merk Gaudio

▪ Shiley School of Engineering Shiley Hall 301

“BLT2: B2Spice to L-Edit Translator.”

EE students are able to easily design digital CMOS integrated circuits through the MOSIS Educational Program (MEP). It allows EE students to design and simulate their digital circuit in B2Spice, then uses BLT2 to convert their B2Logic circuit netlist into a special file which L-Edit understands. L-Edit then automatically lays out the CMOS integrated circuit which is sent for fabrication.

Presented By: Teresa Casper, Stephen Hildebrand, Maddie Hutson, and Matthew Wellnitz
Faculty Sponsor: Peter Osterberg

“Semi-Solar Powered House.”

The objective of this project is to make energy efficient homes a reality for the middle class person. It allows the customer to have a user-friendly electric system for running both solar and grid power in their house.

Presented By: Matthew Arlint, Christine Liu, and Kyle Michael
Faculty Sponsor: Zia Yamayee, Peter Osterberg, Bret Aguirre (Industry), and Benjamin Davidson (Client)

▪ Shiley School of Engineering Shiley Hall 101

“Human Paintbrush.”

This virtual reality system provides a 3D sculpting experience for the user. A Microsoft Kinect tracks a user's body position and arm movements while a VR headset displays the user's sculpture.

Presented By: Parker Kimball, John Lien, Viet Phan, and Matthew Young
Faculty Sponsor: Steve Vegdahl, Tammy VanDeGrift, and Marcos Ortiz (Industry)

“Block 76 Building.”

Block 76 is a five-story wooden commercial building located near downtown Portland. It is positioned on a sloped foundation and it consists of a sloping roof garden. Our scope is to design the structural elements to ensure it passes standards of the International Building Code.

Presented By: Kent Andreasen, Riley Bykonen, Eric F Chen, and Matthew Josiah
Faculty Sponsor: Mehmet Inan and Norm Faris (Industry)

Session III 2:15 - 3:05 p.m.

▪ Shiley School of Engineering Shiley Hall 123

“Society of Automotive Engineers (SAE) Aero Design Competition.”

This team is competing in the international SAE aero design west competition. They are required to design and construct a medium-sized RC aircraft that is capable of lifting as much weight as can be managed. There were a multitude of design obstacles the team had to overcome which will be discussed during our presentation.

Presented By: Abe Boudouris, Nick Costa, Claire Pfeiffer, and Andrew Whitehouse
Faculty Sponsor: V Dakshina Murty and Chris Hainley (Industry)

“Counting Analysis Real Time Detection System (CARDS).”

Software for statistical analysis of the betting habits of blackjack players in order to detect card counters. A web interface displays results in real time during play.

Presented By: Marc Larson, Stephen Robinson, Kirkland Spector, and Chandler Underwood
Faculty Sponsor: Andrew Nuxoll and Richard Loy (Industry)

▪ Shiley School of Engineering Shiley Hall 124

“Autonomous Door.”

This project is to design a fully functioning autonomous door to assist the elderly and handicapped to enter their homes. The door will unlock a deadbolt, open, close, then re-lock using an autonomous system, allowing the user a safe, secure, and hands-free access to their homes.

Presented By: Kelvin Abe, Eric Chen, Brian Dalton, Jake Shin, and Devyn Teruya Faculty Sponsor: Jordan Farina

“Pilot Club.”

The purpose of this project is to create a permanent multi-purpose structure for the Pilot Club members at the Merlo soccer field.

Presented By: Mitchell Casio, Jessica Escobar, Matthew Liu, Tery Fernandez, Cailean Ching, and Gavin Yamamoto
Faculty Sponsor: Mehmet Inan, Khalid Khan, Zia Yamayee, James Williams (Industry), and Dustin Sauer (Industry)

▪ School of Nursing Buckley Center Auditorium

“Harm Reduction: Evidence base practice, public health, and professional advocacy to create change”

Harm reduction & supervised injection facilities save lives & money; reduce risk behaviors, disease transmission, and re-frame the drug debate. The presentation will demonstrate how evidence-based practice and public health models can establish best practices and promote systems-level change through professional advocacy within Oregon Nurses Association and Oregon Student Nurses Association.

Presented By: Jonathan Irwin, Cora McSperitt, and Skye Kahea Young
Faculty Sponsor: Amber Vermeesch and Karen Cameron

▪ Franz Center Franz Hall 026

“Annual Founders Day Elevator Pitch (Group 2).”

Open to all students who would like to present their “pitch” for a company, a not-for-profit, a technology, or a product. The audience will select the best pitch, and you don't have to pitch to be part of the audience. The winner (in each room) receives a \$100 gift card.

Presented By: All Students Welcome Faculty Sponsor: Peter Rachor and Jon Down

▪ Franz Center Franz Hall 025

“Annual Founders Day Elevator Pitch (Group 1).”

Open to all students who would like to present their “pitch” for a company, a not-for-profit, a technology, or a product. The audience will select the best pitch, and you don't have to pitch to be part of the audience. The winner (in each room) receives a \$100 gift card.

Presented By: All Students Welcome Faculty Sponsor: Peter Rachor and Jon Down

Session IV 3:15 - 4:05 p.m.

▪ College of Arts and Sciences

Shiley Hall 319

“On The Body: Experiential learning in the human cadaver lab.”

Twelve undergraduate science and nursing students embarked on an experiential learning journey this semester in the Advanced Human Anatomy course. In this presentation students will share their experiences with dissection in the human cadaver lab. Students will discuss topics such as the history and ethics of body donation, personhood, death, global approaches to teaching anatomy, and more.

Presented By: Elena Roberts, Kai Seeley, Raluca Gosman, Kim Mueller, Alexandra Moskowitz, Nicole Stucky, Mackenzie Brandon, Saifullah Hasan, Sebastian Brita-Orama, Heng Chen, Michael Bruschwein, and Megan Mosca
Faculty Sponsor: *Jacquie Van Hoomissen*

▪ College of Arts and Sciences | English

Franz Hall 034

“Why Read?”

In an ever more fast-paced and technology-saturated world, what can be gained from reading? Why is an English course required of all UP students?

In this session, six students from English 112, representing different majors across campus, will present their answers to these questions, and a discussion will follow.

Presented By: Brett Adams, Tayler Bradley, Thomas Curran, Sasha Lower, Mayetta Martel, and Erin Stuart
Faculty Sponsor: *Cara Hersh and Molly Hiro*

▪ College of Arts and Sciences | Environmental Science

Shiley Hall 301

“Optimizing Angles of Photovoltaics at UP.”

This study developed a mathematical model for optimizing photovoltaic angles and calculated the savings from installing photovoltaics on the rooftops of UP buildings as compared to existing roof types and other energy-saving roof designs like ecoroofs and white roofs. The study also calculated the return on investment for installing photovoltaics at UP.

Presented By: Nicole Statler and Amanda Adams

Faculty Sponsor: *Ted Eckmann*

▪ College of Arts and Sciences | History

Franz Hall 015

“The ‘Tacoma Method’ in the News: Newspaper Coverage of the Expulsion of the Chinese from Tacoma, Washington, 1883-1885.”

Presented By: EmmaLee Kuhlmann

Faculty Sponsor: *Bradley Franco*

“Gender and Identity in The American West: A Focus on The California Gold Rush”

Presented By: Monica Portugal

Faculty Sponsor: *Bradley Franco*

“MC Lyte, Queen Latifah, and Yo-Yo: A Black Feminist Girl Gang and Its Significance During Hip-Hop’s Golden Age”

Presented By: Rachel Saxby

Faculty Sponsor: *Bradley Franco*

▪ College of Arts and Sciences | International Language and Cultures

Franz Hall 231

“Hispanic Literatures and Cultures across Time and Space.”

This panel features four presentations from advanced Spanish classes addressing cultural production in the Hispanophone world in various genres and time periods, from early-modern and present-day Spain to colonial and contemporary Latin America. Students will discuss an essay they wrote for one of these classes, explaining in Spanish the content and significance of their work.

Presented By: Emily Nowlin, Erika Murphy, Estefanía Morales, and Calli VanderWilde
Faculty Sponsor: *Matthew Warshawsky*

Session IV 3:15 - 4:05 p.m.

▪ College of Arts and Sciences | Philosophy

Buckley Center 104

“Human Nature and Politics in Aristotle and Hobbes.”

Presented By: Brooklyn Kozlowski

Faculty Sponsor: *Jeff Gauthier*

“A Defense of Natural Law in Civil Rights Cases.”

Presented By: Everett McLean II

Faculty Sponsor: *Jeff Gauthier*

“The Cross-Cultural Effects of Feminism on Asian American Women.”

Presented By: Julie Pham

Faculty Sponsor: *Jeff Gauthier*

“MacKinnon on the Harm of Pornography: A Marxist Defense.”

Presented By: Teague Wiebe

Faculty Sponsor: *Jeff Gauthier*

▪ Pamplin School of Business

Franz Hall 006

“Portland Job Search and Tech Job Growth.”

Can job growth in the Portland Metro area be predicted with economic indicators? How much do national trends coincide with local job growth? We focused on computer systems and design and software publishers. These tech jobs exclude IT departments within other types of companies. This report examines recent job growth in these types of companies and compares it to the state of Oregon and the US.

Presented By: Ruth Easterling, Kevin Chapman, and Ashwin Ramkumar
Faculty Sponsor: *Naveen Gudigantala*

▪ Pamplin School of Business

Franz Hall 026

“Evidence from India: Evaluating microfinance as a tool to help the poor.”

The impact of microfinance institutions (MFIs) as a tool for helping the poor is unclear. This research seeks to address the impact on the average household of making microcredit more available in Hyderabad, India by offering an analysis of data on the creation of new businesses, business profitability, income changes, household spending patterns, and the impact of MFIs on development goals.

Presented By: Nikki Carter

Faculty Sponsor: *Ross Hanig*

▪ Pamplin School of Business

Franz Hall 205

“Marketing Research on Cathedral Coffee.”

An examination of Cathedral Coffee and preferences of customers using Qualtrics and other market research tools.

Presented By: Sabrina Arnold, Kavi Iddawela, and Sarah Espinosa

Faculty Sponsor: *Ian Parkman*

▪ Pamplin School of Business

Franz Hall 206

“Who’s Listening? A case study for identifying the best digital marketing strategy solutions.”

Looking at a locally grown Portland company that’s wanting to grow their digital marketing strategy, particularly on social media, we look at the methods of survey research taken to try and disseminate consumer behavior and trends.

Presented By: Jake Hanna and Brianna Horwath

Faculty Sponsor: *Ian Parkman*

▪ School of Education

Franz Hall 222

“Experiential Learning: Utilizing Virtual and Real Field Trips to Enrich Student Learning.”

This presentation will demonstrate different methods for bringing experiential learning to your students, both within and outside of the classroom. The presenters will illustrate different resources and examples of using experience to inspire student learning in a variety of cross-curricular disciplines.

Presented By: Meg Crowley, Katie Lord, and Stephanie Nakamine

Faculty Sponsor: *Hillary Merk Gaudio and Julie Kalnin*

Session IV 3:15 - 4:05 p.m.

▪ **School of Education** Franz Hall 223

“Integration Nation: Science All Around Us.”

This presentation illustrates how one theme can integrate all content areas in early elementary. The presenters will use a thematic unit on space and integrate it into Math, History, Art, English Language Arts, and Science.

Presented By: Savannah Williams, Maricela Resendez, Halie Marsh, Erin Nishijima, and Laura Ehl
Faculty Sponsor: *Hillary Merk Gaudio*

▪ **Shiley School of Engineering** Shiley Hall 124

“UP Electric Vehicle.”

Project is an attempt to convert an old internal combustion engine golf cart to an electric drive train.

Presented By: Michael Beck, John Chadbourne, Joe DaSilva, Justin Plummer, and Chris Quine
Faculty Sponsor: *Ken Lulay, Tim Scheumann (Industry), and Matt Ryan (Industry)*

“Xylobot.”

Project Xylobot is a xylophone-playing robot that interprets music notation from an XML file and uses mallets to strike the bars of xylophone to play songs to the digital sheet music.

Presented By: Hassan Alkhudhair, Nghi VNguyen, Ariel Niedo, Jr., and Chad Sakoda
Faculty Sponsor: *Wayne Lu and Tim & Emilia Vanderwerf (Industry)*

▪ **Shiley School of Engineering** Shiley Hall 101

“Team Abraham Cerebral Palsy Communication Application.”

The team designed and developed an Android app to assist a boy with Cerebral Palsy to communicate with his family. With his limited physical ability and speech challenges, the app is custom-built according to his interests, communication needs, and physical limitations.

Presented By: Ryson Asuncion, Matt Ong, Sean Pierson, and Joel Simard
Faculty Sponsor: *Tammy VanDeGrift, Olivia Coiado, Richard Turner (Industry), Debbie Anderson, and Abraham and family (Client)*

▪ **Shiley School of Engineering** Shiley Hall 123

“Starcraft AI.”

An artificially intelligent player for the Starcraft computer game. The AI analyzes the state of the game and makes decisions about production and unit movements.

Presented By: Alex Bowns, Max Robinson, Casey Sigelmann, and Kenny Trowbridge
Faculty Sponsor: *Andrew Nuxoll and Andrew Meyer (Industry)*

“Home Data Collection Interface.”

The Home Data Measurement Interface is an IoT application that measures the efficiency of a solar hot water system. This project utilizes several Data Acquisition Devices with sensors that collect data such as temperature, humidity, and light.

Presented By: Huy Nguyen, Paul Olivar, Michael Thorsen, and Eric Vo
Faculty Sponsor: *James Schmidt, Nicholas Warlen (Industry), and Mark Reed (Industry)*

▪ **Collaborative for Int'l Studies & Global Outreach** Franz Hall 214

“Study Abroad in the Land of the Thunder Dragon (Bhutan).”

Presented By: Brooke Holmes Faculty Sponsor: *Anne Santiago*

“Music in the Marche: Summer Study in Mondavio, Italy”

Presented By: Nicole Benavente and Taylor Kendig Faculty Sponsor: *Anne Santiago*

“Service Learning and STEM Integration Study at Pollentia, Spain.”

Presented By: Kristen Turner Faculty Sponsor: *Anne Santiago*

Poster Presentations 10:15 - 11:05 a.m.

▪ **College of Arts and Sciences | Biology** Shiley Hall 3rd Floor Atrium

“Environmental Survey of the Ecological Recovery of the University of Portland River Campus Riparian Zone, Portland, OR: A Comparative Study.”

Presented By: Carina Bernard and Natasha McGlaun Faculty Sponsor: *David Taylor*

“Restoration Effects: Mammal Health and Abundance.”

Presented By: Abigail Maddigan, Piper Stevie, Laura Braun, Cody Fischer, and Kristen Jakstis
Faculty Sponsor: *Laurie Dizney*

▪ **College of Arts and Sciences | Chemistry** Franz Hall Holy Cross Lounge

“Two biologically active fractions of propolis.”

Presented By: Linda Hong and Audra Lewis Faculty Sponsor: *Sr. Angela Hoffman, O.S.B.*

“Resistance to Pythium Growth in the Fruit of the California Bay Laurel.”

Presented By: Rebecca Driessen Faculty Sponsor: *Sr. Angela Hoffman, O.S.B.*

“Basket plant (Callisia fragrans) extract: A potential anti-cancer compound in the works.”

Presented By: Kevin Truong Faculty Sponsor: *Sr. Angela Hoffman, O.S.B.*

“Identification of anti-fungal flavonoids originating from Dahlia variabilis.”

Presented By: Michelle Tran and Monica Pengshung Faculty Sponsor: *Sr. Angela Hoffman, O.S.B.*

“Extraction, Isolation, and Biological Activity Of Chemical In Piper betle Leaf.”

Presented By: Vy Le, Thao Ly, and Elle Fujimoto Faculty Sponsor: *Sr. Angela Hoffman, O.S.B.*

“Spectroscopic investigation of HCl and DCl gas: Vibrational dynamics and isotopic comparison.”

Presented By: Matthew Rodriguez and Jake VanCampen Faculty Sponsor: *Steve Mayer*

“Molecular Photophysics of Acridine Yellow: Fluorescence and Phosphorescence.”

Presented By: Gisela Abigail Gonzalez-Montiel and Emily O'Loughlin Faculty Sponsor: *Steve Mayer*

“Temperature-Dependant Phosphorescence of Acridine Yellow.”

Presented By: Monica Gajda and Rebecca Wetzel Faculty Sponsor: *Steve Mayer*

“What's in the Box? Electronic Absorption Spectroscopy of Conjugated Molecules and Nanoparticles.”

Presented By: Bryce Birchfield and Wilson Li Faculty Sponsor: *Steve Mayer*

“Using the particle-in-a-box to model electronic transitions in conjugated dyes and ZnO nanoparticles.”

Presented By: Rory Gallagher and Seth Rodgers Faculty Sponsor: *Steve Mayer*

“Raman spectroscopy of carbon tetrachloride.”

Presented By: Tim Dobson, Noah Forrest, and Tristen Tagawa Faculty Sponsor: *Steve Mayer*

“Vibrational Spectroscopy of Carbon Tetrachloride using Raman Spectroscopy.”

Presented By: Kylie Konrath and Dylan Nevin Faculty Sponsor: *Steve Mayer*

“The practical application of wave-particle duality: Using interferometry to measure physical constants.”

Presented By: Lukas Magee and Zack Turley Faculty Sponsor: *Steve Mayer*

“Michelson Interferometry.”

Presented By: Ben Bui and Jonathan Fung Faculty Sponsor: *Steve Mayer*

Poster Presentations 10:15 - 11:05 a.m.

- College of Arts and Sciences | Physics Franz Hall Lobby
“Electronic Speckle Pattern Interferometry.”
 Presented By: Meagan Koeroghlian and Andrew Williams *Faculty Sponsor: Shannon Mayer*

- School of Education Franz Hall Lobby
“Responding to Diversity in the Classroom.”
 Presented By: Kelsey Nirei and Caitlyn Cortez *Faculty Sponsor: Hillary Merk Gaudio*

- Shiley School of Engineering | Civil Engineering Shiley Hall 2nd Floor Atrium
“Block 76 Building, Portland, OR.”
 Presented By: Kent Andreasen, Riley Bykonen, Eric Chen, and Matthew Josiah *Faculty Sponsor: Mehmet Inan*

Poster Presentations 11:15 a.m. - 12:05 p.m.

- College of Arts and Sciences | Chemistry Franz Hall Holy Cross Lounge
“Creation of an affinity column for taxol purification.”
 Presented By: Lukas Magee and Isabelle Nguyen *Faculty Sponsor: Sr. Angela Hoffman, O.S.B.*

- “Yew Tree Extracts as a Natural Insecticide Against Tobacco Hornworms.”**
 Presented By: Bao Tran Nhan and Jin Yun *Faculty Sponsor: Sr. Angela Hoffman, O.S.B.*

- “Anti-hyaluronidase activity of various methanol plant extracts, and implications in neurodegenerative repair.”**
 Presented By: Jake VanCampen *Faculty Sponsor: Sr. Angela Hoffman, O.S.B.*

- “Extraction of Taxol from a Wild Yew Tree.”**
 Presented By: Bradley Del Rosario and Melanie Takashima *Faculty Sponsor: Sr. Angela Hoffman, O.S.B.*

- College of Arts and Sciences | Chemistry Franz Hall 2nd Floor Balcony
“Effects of Substituents on the Equilibria for Two Diastereomeric Arylpyran Pseudoacids.”
 Presented By: Johanna Wilson *Faculty Sponsor: Ed Valente*

- “Conformations and Structural Trends in an Extended Set of Dihydropyran Derivatives.”**
 Presented By: Sharlyn Sentinella *Faculty Sponsor: Ed Valente*

- “Crowded Arylpyran Pseudoamides. Evidence for Rearrangement in the Precursor Indanone Synthesis.”**
 Presented By: Kevin Jones *Faculty Sponsor: Ed Valente*

- “Dynamic Nuclear Magnetic Resonance Studies of Arylpyran Pseudoacids.”**
 Presented By: Jonathan Fung, Kean Bracerros, Tristen Tagawa, Johanna Wilson, and Kevin Jones
Faculty Sponsor: Ed Valente

- “Conformations and Structural Trends in an Extended Set of Tetrahydropyran Derivatives.”**
 Presented By: Benjamin Bui *Faculty Sponsor: Ed Valente*

- “Sticky Like a Mussel: Synthesis of a Biomimetic Adhesive Polymer.”**
 Presented By: Bryce Birchfield and Justin Dingman *Faculty Sponsor: Ronda Bard*

Poster Presentations 11:15 a.m. - 12:05 p.m.

- College of Arts and Sciences | Chemistry Franz Hall Lobby
“XRF and Raman analysis of a 15th-century painting in Mallorca, Spain.”
 Presented By: Gisela Abigail Gonzalez-Montiel and Ryan Bergamo
Faculty Sponsor: Valerie Walters, Ray Bard, and Ronda Bard

- “Synthesis of antimalarial 2-hydroxy-1,4-naphthoquinones containing 3-alkyl-diphenylether side chains.”**
 Presented By: Noah Forrest and Amanda Glenn *Faculty Sponsor: Warren Wood*

- “Progress towards the synthesis of 3-acylated-2-hydroxy-1,4-naphthoquinones.”**
 Presented By: Dylan Nevin *Faculty Sponsor: Warren Wood*

- College of Arts and Sciences | Mathematics Franz Hall Lobby
“Spring High Tides and Inundation Risk at Four Northeastern Coastal National Parks.”
 Presented By: Nicole Statler *Faculty Sponsor: Meike Niederhausen*

- “Statistical analyses of the effects of autotomy on the dorso-ventral righting reflex in a crab.”**
 Presented By: Logan Mealy and Brian Satterthwaite *Faculty Sponsor: Meike Niederhausen and Tara Maginnis*

- College of Arts and Sciences | Physics Franz Hall Lobby
“Experimental Demonstration of a Delayed-Choice Quantum Eraser.”
 Presented By: James Ashby and Peter Schwarz *Faculty Sponsor: Maximilian Schlosshauer*

- School of Education Franz Hall Lobby
“Privileged: Being a Teacher Ally in Diverse Classrooms.”
 Presented By: Monica Portugal, EmmaLee Kuhlmann, and Alexa Bryant-Capellas *Faculty Sponsor: Julie Kalnin*

- Shiley School of Engineering | Civil Engineering Shiley Hall 2nd Floor Atrium
“West Union Reservoir Siting & Hydraulic Analysis.”
 Presented By: Jake Brown, Noah Durr, Gilliam Gleason, Joey Urness, and Trace Webster *Faculty Sponsor: Cara Poor*

- “Tryon Creek WWTP Upgrades, Portland, OR.”**
 Presented By: James Dunbar, Sean Gestson, Brenna Harrington, and Clayton Stahnke
Faculty Sponsor: Mark Kennedy

- “LaCenter Casino Transportation Planning & Design, LaCenter, WA.”**
 Presented By: Emily Nickel and Amir Tumbling *Faculty Sponsor: Mojie Takallou*

- Shiley School of Engineering | Mechanical Engineering Shiley Hall 2nd Floor Atrium
“Torrefaction of Biomass.”
 Presented By: Chris Cardoza, Katie Cummins, Rudi Hamsa, Kevin Hanscam, Timothy Miles, and Paul Munn
Faculty Sponsor: Shaz Vijlee

- School of Nursing Buckley Center Auditorium Lobby
“Yoga Therapy for Mental Illness.”
 Presented By: Kaitlyn Knudson *Faculty Sponsor: Amber Vermeesch*

- “Reducing Procedural Pain in Neonates with Kangaroo Care.”**
 Presented By: Meghan Bradford, Danielle Silva, Erin Simants, and Hannah Schmitz
Faculty Sponsor: Amber Vermeesch

Poster Presentations 11:15 a.m. - 12:05 p.m.

- **School of Nursing** **Buckley Center Auditorium Lobby**
“Adverse Childhood Experiences (ACE’s): They can last a lifetime but they don’t have to.”
Presented By: Micheline Toews *Faculty Sponsor: Joan Caley*
- “Evidence Based Research Behind Medication Errors.”**
Presented By: Liya Chernenko, Mila Kalenichenko, Irina Koroteyev, and Lyuda Osintsev
Faculty Sponsor: Lindsay Lancaster
- “Pilot Study: Evaluation of Caregiver’s response to a Program for ‘sundowning’ Elders.”**
Presented By: Haley Lowe *Faculty Sponsor: Peggy McComb*
- “Faith and Leadership in a Healthcare Setting.”**
Presented By: Melissa Hager *Faculty Sponsor: Sally Rothacker-Peyton*

Poster Presentations 2:15 - 3:05 p.m.

- **College of Arts and Sciences | Environmental Science** **Shiley Hall 3rd Floor Atrium**
“Analyzing Vertical Temperature Profiles With Drone and Tethersonde Flights on the University of Portland Campus.”
Presented By: Sandra Velasquez and Samantha Wright *Faculty Sponsor: Ted Eckmann*
- “Topographical Effects on the Distribution of Industrial Air Pollution at the University of Portland.”**
Presented By: Samantha Wright and Sandra Velasquez *Faculty Sponsor: Ted Eckmann*
- “Analysis of the Hydrologic Impact of Sedum Album on Green Roofs at the University of Portland.”**
Presented By: Junjie Chen and Calli VanderWilde *Faculty Sponsor: Ted Eckmann*
- “Analysis of Sedum and Dudleya Species on the University of Portland’s Green Roofs Using Vegetation Indices.”**
Presented By: Andrew Holstrom *Faculty Sponsor: Ted Eckmann*
- **College of Arts and Sciences | Mathematics** **Franz Hall Lobby**
“An Agent-based Model of the Green Dot Violence Prevention Program on College Campuses.”
Presented By: Parkes Kendrick and Tsikata Apenyo *Faculty Sponsor: Hannah Callender*
- **School of Education** **Franz Hall Lobby**
“Connecting Learning to Cultural Backgrounds in Secondary Social Studies.”
Presented By: Benjamin Heeber and Felicia Teba *Faculty Sponsor: Julie Kalnin*
- **Shiley School of Engineering | Civil Engineering** **Shiley Hall 2nd Floor Atrium**
“ASCE-AISC Steel Bridge Project.”
Presented By: Michael Corpus, Shannon Danforth, David DiLoreto, Torin Kubo, and Dillon Zang
Faculty Sponsor: Matthew Kuhn
- “Indian Health Services Project, Tucson, AZ.”**
Presented By: Jacob Hagen, Colleen Koenig, Jonathan May, and Amanda Thompson
Faculty Sponsor: Sharon Jones

Poster Presentations 3:15 - 4:05 p.m.

- **College of Arts and Sciences | Biology** **Franz Hall Lobby**
“Effects of nutrient additions on multiple trophic levels in a Pacific Northwest estuarine tidal wetland.”
Presented By: Kristen Jakstis, Cody Fischer, Isabelle Nguyen, and Deanna Williams
Faculty Sponsor: Christine Weilhoefer
- “High-Fat Diet Consumption Impacts the Dopaminergic System in the Nucleus Accumbens in Male Non-Human Primates.”**
Presented By: Cassandra Kasten *Faculty Sponsor: Elinor Sullivan*
- “Maternal and Current High-Fat Diet Consumption Impacts Anxiety and Food Motivation.”**
Presented By: Tram Bui *Faculty Sponsor: Elinor Sullivan*
- “Characterization of V982 in the P-glycoprotein substrate binding domain using site-directed mutagenesis.”**
Presented By: Alana Campbell and Katie Clute-Reinig *Faculty Sponsor: Kathryn Van Hook*
- “Chromosomal Gene Deletions in the TonB2 System of V. vulnificus.”**
Presented By: Adel Barnes *Faculty Sponsor: Ryan Kustusich*
- “Does HCMV fibroblast adapted vaccine elicit an atypical immune response?”**
Presented By: Lavinia Sagario *Faculty Sponsor: Susan Murray*
- “Detecting HCMV Infection Rates in UP Students Utilizing Saliva Samples in Comparison to Serum Sample Sensitivity.”**
Presented By: Logan Griensewic *Faculty Sponsor: Susan Murray*
- **College of Arts and Sciences | Mathematics** **Franz Hall Lobby**
“Applications of Knot Theory to DNA Unpacking and Replication.”
Presented By: Nate Mattix *Faculty Sponsor: Valerie Peterson*
- “Digital Topology: How the screen in your pocket works and how it might work better.”**
Presented By: Jarrett Oney *Faculty Sponsor: Valerie Peterson*
- “Topology and the Shape of the Universe.”**
Presented By: Madeleine Boyle *Faculty Sponsor: Valerie Peterson*
- “Topology Applied to Game Theory and Nash’s Equilibrium Theorem.”**
Presented By: Forrest McBride *Faculty Sponsor: Valerie Peterson*
- “A Complex Approach to Homology.”**
Presented By: Micah Thorpe-Kramp *Faculty Sponsor: Valerie Peterson*
- **College of Arts and Sciences | Psychology** **Shiley Hall 3rd Floor Atrium**
“Body Image Blues? Perspectives on Social Pressures in a Retrospective Study.”
Presented By: Sophia Colletti *Faculty Sponsor: Andrew Guest*
- “When life is on the line: motivations and strategies of crisis hotline volunteers.”**
Presented By: Ana Lasich *Faculty Sponsor: Andrew Guest*
- “Environmental Perceptions: Implications of Challenging Behaviors on Support Staff.”**
Presented By: Brianna McAteer *Faculty Sponsor: Andrew Guest*
- “Empowering Girls? An Evaluation of Girls, Inc. Programming.”**
Presented By: Jessica Chelsky *Faculty Sponsor: Andrew Guest*

Poster Presentations 3:15 - 4:05 p.m.

- College of Arts and Sciences | Psychology
“Measuring Mentorship: Evaluating Outcomes of the Chemo Pal Program.”
Presented By: Steph Hampel
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest
- “Feeling the Heat: Motivations and Stress Coping Mechanisms of Restaurant Cooks.”**
Presented By: AJ Muth
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest
- “Perspectives on Older Adults in Assisted Living and Residential Care.”**
Presented By: Katie Williams
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest
- “Attitudes and Caregiving: How Nurses Manage Patient Relationships and Stress.”**
Presented By: Mitchee LaPlante
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest
- “Barrier Busting: Mental Health Stigma and Perceptions of Counseling at UP.”**
Presented By: Jesse Dunn
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest
- “Keep Calm and Get Through Fifth Grade: An Evaluation of Emotional Management and Problem Solving in Elementary School.”**
Presented By: Kelin Carraher
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest
- “From Crisis to Thriving: Factors for Successful Resettlement of Refugees in Portland.”**
Presented By: Gianna Carducci
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Andrew Guest

- College of Arts and Sciences | Psychology
“Exploring Relationships between Sexual Behaviors and Personality.”
Presented By: Abigail Williams and Ellen Malaki
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “True Crime? An Examination of Eyewitness Testimony.”**
Presented By: Logan Crabtree and Mary Francis Sewright
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “Relation between Personality and Internet Usage.”**
Presented By: Sara Gibbons and Aaron Monto
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “Psychosocial Influences on Eating Disorders.”**
Presented By: Maritza Leon, Tayler McClellan, and Carly Simon
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “The Effects of Birth Order on Procrastination.”**
Presented By: Meagan Zeigler and Jessica Lake
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “The Impact of Positive and Negative Coaching Styles on Athlete Performance and Motivation.”**
Presented By: Noelle LaPrevotte and Riley Clark
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “Psychological Effects of a Placebo: An Alcohol Perception Study.”**
Presented By: Rebecca Newcomb and Lincoln Clark
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “The Effect of Empathy on Music Preference.”**
Presented By: Marcus Kopp and Aidan Lu
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “Empathic Exertion and It’s Effect on Fatigue.”**
Presented By: Kacy Buto and Tyler Gregg
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “Investigating the Relationships between Eating Disorders and Divorce.”**
Presented By: Amelia Bryan and Sidney Richardson
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka
- “The Effect of Guided Meditation on Working Memory.”**
Presented By: Samantha Wilmart and Eliza Minculesco
Shiley Hall 3rd Floor Atrium
Faculty Sponsor: Deana Julka

Post-Founders’ Day Evening Events

- 4:10 - 4:30 p.m.** Founders’ Day Vespers, Chapel of Christ the Teacher
- 4:30 - 5:00 p.m.** Annual CAS Senior Toast, St. Mary’s Lounge
- 6:30 p.m.** *Writers* magazine launch party, all invited, Campus Bookstore

