Elsa Barron
Beyond Conflict: Expanding the Typology of Environmental Peacebuilding
Advised by Caroline Hughes
Peace Studies

Anna Benedict
from AS THE CROW FLIES a novel
Advised by Joyelle McSweeney
Creative Writing

Muqsit Buchh
Domain Interactions of Group A Streptococcus M-protein and Intrinsic Coagulation Pathway Proteins
Advised by Francis J. Castellino
Biological Sciences

Mary Catherine Camacho
Lactobacilli in Microbiome Activate Hepatic Nrf2 and Protect Against Acetaminophen Induced Oxidative Hepatotoxicity
Advised by David Boone
Biological Sciences

Bridget Carmody
Advised by Dr. Susanne Wengle
Political Science
William Clark
Queer Activism in China Genealogy, Ontology, and Future
Advised by Dr. Michel Hockx
East Asian Studies

Aidan Cook
Effect of CRISPR-Cas9-induced per deletion mutation on light-dependent activity of Aedes aegypti
Advised by Joseph O’Tousa
Biological Sciences

Tyler Dann
Anatase Titanium Dioxide Imparts Photoluminescent Properties to PA2200 Commercial 3D Printing Material to Generate Complex Optical Imaging Phantoms
Advised by W. Matthew Leevy
Biology & the Idea Center’s Innovation Lab

Mitchel DeBoskey
Laser Capture Microscopy and 3D Printing for Ribonucleic Acid Extraction Applications
Advised by Dr. Felipe Santiago-Tirado
College of Science

Rhea Desouza
A Comparative Investigation on the Effects of Fat-Based Diets on Metabolic and Immunological Profiles of Prostate Cancer Progression
Advised by Xin Lu
Biological Sciences
Matthew Donahue
Compensatory Mutations and Pre-Adaptation to Knockdown Resistance in Tetrodotoxin-Resistant Northern Yellowstar Caddisflies (*Limnephilus flavastellus*)
Advised by Michael Pfrender
Biological Sciences

Bryce Dzubara
Cholera in 19th Century New York City: How a Perfect Storm of Sickness Solidified and Enflamed Class Divides
Advised by James Lundberg
History

Lauren English
The Characterization of Innate Immune-Mediated Colitis in the TRAG Murine Model
Advised by Dr. David Boone
Biological Sciences

Benjamin Ferris
The Real Grassmannian and Classification of KP Solutions
Advised by Michael Gekhtman
Math

Morgan Foley
The Relationship Between Neural Oscillatory Patterns, Age, and Memory Performance: An EEG Study
Advised by Dr. Joshua Koen
Psychology
Cassandra Franke
The Hidden Costs of COVID-19: Examining the Relationship between SARS-CoV-2-Related Financial and Childcare Stressors and Depression among Pregnant Women and Mothers
Advised by Dr. Laura Miller-Graff
Psychology

Mary Freedlund
Enterococcus Pathogenesis, Niches, and Adhesins Involved in Expression
Advised by Ana Lidia Flores-Mireles, PhD
Biological Sciences

Alec Gonzalez
Detecting PFAS in Firefighter Turnout Gear
Advised by Graham Peaslee
Physics

Ellie Gorman
Reducing Safety Behaviors to Prevent Anxious Symptoms: A Pre-Registered Prevention Intervention Study
Advised by Gerland Haefel
Psychology

Leah Grabowski
What We Need to Learn: Analyzing Measures of Educational Success
Advised by Dr. Molly Walsh
ACMS
Matthew Guggenbiller
Identification of Genes Involved in the Pathogenesis of Esophageal Adenocarcinoma Using RNA Sequencing from Laser Capture Microdissected Formalin-fixed Paraffin-embedded Tissue Specimens
Advised by Urs Von Holzen
Indiana University School of Medicine - South Bend (at Harper Cancer Center)

Leah Harmon
Analysis of age-related network desegregation in multiple cognitive states
Advised by Joshua Koen
Psychology

Claire Hartman
Determining the Sensitivity of the Dual Reporter Assay to Changes in Thermodynamic and Kinetic Folding Parameters Using Nonsynonymous Mutants of RNaseH in vivo
Advised by Dr. Patricia Clark
Chemistry and Biochemistry

Chloe Hemm
Language in Cross-cultural Healthcare Settings: A Study of Goal-Oriented Communication
Advised by Dr. Kathleen Eberhard
Psychology

Kallin Hermann
Coronavirus Perceptions, Knowledge and Access to Care in México
Advised by Jennifer Robichaud
Biological Sciences/ International Development Studies
Owen Ivan
Proteomic and Transcriptomic Analysis of Neural Cell Fate in Developing Xenopus Laevis Embryos
Advised by Paul Huber
Chemistry and Biochemistry

David Kim
Inflammation Regulation
Advised by Dr. Richard Dahl
Biological Sciences

Gabriela Kim
Investigating the Effect of Epigenetic Therapy on Hippocampal Function in a Mouse Model of Kabuki Syndrome
Advised by Dr. Kasturi Haldar and Dr. Suhail Alam
Biological Sciences

Paul Kinkopf
Optimizing Plasma-Induced DNA Damage in Atmospheric Pressure Plasma Jets (APPJs)
Advised by Sylwia Ptasinska
Physics

Ryan Klevens
Fluorescent Squaraine Figure-Eight Molecules
Advised by Bradley D. Smith
Chemistry & Biochemistry
Tessa Klein
Simulating cosmic muon and gamma ray interference in HECTOR summing detector
Advised by Anna Simon
Physics

Allison LeHanka
Modelling Nonlinear Feedback in Neural Stem Cell Populations in the Hippocampal Dentate Gyrus
Advised by Dr. Alexandra Jilkine
ACMS

Matthew Licursi
Metabolism of Reactive Sulfur Species by the Mammalian Thioredoxin System
Advised by Ken Olson
Biological Sciences

Yuxin Lin
Elliptic Curves with Complex Multiplication
Advised by Andrei Jorza
Math

Joseph Mastroni
Prezygotic Isolation in Insects
Advised by Dr. Jeffrey Feder
Biological Sciences
Mary Clare Morley
A Statistical Analysis of Heart Failure Data
Advised by Alan Huebner
Applied and Computational Mathematics and Statistics

Alex Nisbet
The Hidden Stress of Cancer: Reinterpreting Pediatric Oncology within the Lifecourse Health Development Model
Advised by Dr. Daniel Lapsley
Psychology

Madeline Owen
Poverty, Post-Traumatic Stress Disorder, and Pandemics: How the Human Brain Reacts to and Copes with Traumatic Circumstances
Advised by Dr. Nancy Michael
Neuroscience and Behavior

Sara Reddy
The Maskquerade: A Collection of Short Stores
Advised by Eileen Hunt Botting
Political Science

Kimberly Riordan
Solubilization of Sulfur using Amine-Thiol Interactions and Synthesis Towards a Trigonal Pyramidal Sulfur Radical Supported by a Triaryl Boron Framework.
Advised by Emily Tsui
Chemistry and Biochemistry
Connor Sabers
WallStreetBets, Retail Trading, and Stock Market Volatility
Advised by John Shim
Economics/Finance

Patrick Sansone
Measuring Extra Galactic Elemental Abundances to
Probe the Lithium Problem
Advised by Jay Christopher Howk
Physics

Noah Springer
Discovery of RNA Triple Helix-binding Small Molecules
Advised by Jessica Brown
Chemistry and Biochemistry

Tanner Tarkleson
Managerial Changes in Emergency Medicine to Improve the
Patient and Clinician Experiences
Advised by Dr. Dominic O. Vachon
Compassionate Care in Medicine

Keely Thornton
Do perceived reactions to non-suicidal self-injury disclosure
relate to timing of later sexual assault disclosure? An examination of
individuals who disclose both stigmatizing events
Advised by Brooke Ammerman
Psychology
Sierra Weyhmiller
An Artificial Intelligence Based Analysis of Magnetic Spectrograph Data
Advised by Umesh Garg
Physics

Abigail White
A History of the University of Notre Dame’s Natural History Museum
Advised by Ronald Hellenthal
Biology

Yuki Yoshioka
Understanding the Role of Senescence-Associated Secretory Phenotype (SASP) Factors on Normal Epithelial Cells.
Advised by Zachary Schafer
Biological Sciences
Natalie Armbruster
Competing Peace Processes in Syria: Comparing the Geneva and Astana Processes and the Implications for Long-term Peace in Syria
Advised by Madhav Joshi
Peace Studies

Olivia Barnard
Ada Lovelace meets Tom Stoppard’s Arcadia: Searching for Knowledge as Iteration
Advised by Susannah Monta
English

Aaron Benavides
The Right Gospel: American Catholicism and the Politics of Christian Conservatism
Advised by David Campbell
Political Science

David Berg
Built on Bedrock: The Life-Writings of the Blasket Islands as Communal Biography
Advised by Briona Nic Dhiarmada
IRLL

Andrew Biondo
The Active Intellect Thesis: De Anima III 5
Advised by Christopher Shields
Classics and Philosophy
Margaret Burns
"To Fund the Struggle": Theaster Gates and Systemic Practice
Advised by Dr. Elyse Speaks
Art History

Natalie Casal
Alypius’ role in Augustine’s Confessions
Advised by Dr. Hildegund Muller
Classics

Patrick Caslin
Forecast Models for California State Legislative Elections
Advised by Jeff Harden
Political Science

Isabel Edgar
Do Protests Matter? The Political Implications of the Gilets Jaunes Movement
Advised by Dr. Lakshmi Iyer
Economics

Maria Elena Esteve
Hogares Temporales: Inefficiencies in the Chilean child welfare system and why they matter
Advised by Nilesh Fernando
Economics and Social Work
Eliot Evans
Hurricane Maria’s Effects on Puerto Rico’s Human Capital and Economy: a Case Study on Natural Disasters in a Changing Climate
Advised by Timothy Dunne
Economics

Emileigh Evans
She-Said, We-Said: Marian Apparitions and their Societal Implications
Advised by Francesca Murphy
Theology

Madeline Foley
Life After Death The Relational Emancipation from Queer Refusal
Advised by Emma Planinc
Program of Liberal Studies

Margaret Horan
Child Labor, Schooling, and Poverty in Rural Peru
Advised by John Firth
Economics

Rachel Huges
Breakwater: Floods, Footprints, Backyard Ramblings, Glacial Graves, Explorations, Whispers, Living Bodies Seeking To Be at Home Here Meditations at the End of the World
Advised by Dr. Jennifer Martin
Program of Liberal Studies
Rachel Ingal
Run Like a Girl: How Gender and Race Work through the Role Model Effect to Increase the Political Ambition of Adolescent Girls
Advised by Christina Wolbrecht
Political Science

William LaMarra
Representing Difference Through Two Focalizations: A Narratological and Postcolonial Analysis of Odyssey 9-10 Community in Rome
Advised by Dr. Aldo Tagliabue
Classics

Mitchell Larson
One Wave, Two Wave, Red Wave, Blue Wave
Advised by Dr. Victoria Woodard
Applied & Computational Math & Statistics

Brady Lefkowitz
LGBTQ Youth, Religion, and Schools
Advised by Kraig Beyerlein
Sociology

Pierce Lewin
A Sincere Confession
Advised by Sr. Ann Astell
Theology
Cade MacQuarrie
Carbon Neutrality Crowding Out: Public v. Private Efforts to Abate Carbon Dioxide Emissions
Advised by Forrest Spence
Sustainability and Business

Vincent Mallett
Middle Knowledge, Truthmaking, and Possible Worlds
Advised by Richard Cross
Philosophy

Noah Mattapallil
Predictors of COVID-19 Case Rates in 50 American States
Advised by Jeffrey Harden
Political Science

Patrick McCabe
Rising Gateways and Gatekeepers: Middle Power and Migration Diplomacy at Global Crossroads
Advised by Jaimie Bleck
Political Science

Alex Moran
Predicting U.S. Monthly Inflation with a Random Forest
Advised by Drew Creal
Economics
James Murphy
Mereological Nihilism and the Possibility of Gunk
Advised by Christopher Shields
Program of Philosophy

Catherine O'Leary
Hispanic Ethnicity and Retinopathy of Prematurity:
How health outcome studies can combat “race as biology” mentality
Advised by Vania Smith-Oka
Anthropology

Patrick O'Toole
Preaching To The Choir: A Study of the Civic Activity
In Politically Diverse Churches
Advised by David Campbell
Political Science

Augustine Pasin
Made in the U.S.A., Censored for China
Advised by Michele Hockx
Chinese

Noah Passinault
The Spiritual Sense of Scripture: Resolving Problems in Biblical Interpretation through Origen of Alexandria’s Homilies on Joshua
Advised by John Cavadini
Theology
Katherine Paulsen
Exploring Fabric Modification Techniques and Designing Costumes for
A Midsummer Night’s Dream
Advised by Richard Donnelly
Film, Television, and Theatre

David Phillips
“The Poet is the Medium of Nature:” An Ecocritical Study of Queer Natures and Anti-Futurity in Modernist Literature
Advised by Barry McCrea
English

Ellen Pil
State Legislative Attention and Longitudinal Trends in Central Appalachian Opioid Policy
Advised by Dr. Jeffrey Harden
Political Science

Benjamin Price
L’Asino Bastonato: An Italian Magazine’s Shift from Socialism to Fascism from 1911 to 1919
Advised by Alexander Martin
Program of History

Fritz Schemel
Not all politics are local: the nationalization of politics as NIMBY antidote
Advised by David Campbell
Political Science
Karil Siefker
Creaturely Communion:
A Liberationist Lens on Creation Theology
Advised by Margaret Pfeil
Theology

Stephen Vukovits
From the Classroom to the Voting Booth:
The Effect of Civic Education Curriculum Requirements
on Youth Voter Participation
Advised by Chloë Gibbs
Economics

Claire Whalen
Two Proteins, One Family: A Prediction of CLIPR-76 Isoforms and
Comparative Analysis of CLIPR-59 and CLIPR-76 CAP-Gly Domains
Utilizing Bioinformatics Tools
Advised by Holly Goodson
Chemistry and Biochemistry

Eleanor Wood
There Is Another Sky: A Modern Folk Retelling of Dante's Purgatorio
Advised by Dr. Jennifer Martin
Program of Liberal Studies
Mark Burger
A NEW CLUBHOUSE AT CHAMBERS BAY
Advised by Aimee Buccellato
Architecture

Ethan Scott
An Agrarian Community and Ute Memorial Yoga Ashram
in Southwest Colorado
Advised by Sean Nohelty
Architecture