

- 1**            **Katelyn Vaassen** (Political Science and International Relations)  
3:30-        Lojain Nasr (International Relations)  
4:15pm      **Mentor(s): Brian Lai** (Political Science)  
2nd  
Floor        *More Than Water: A Case Study Countering Chinese Influence in Fiji*  
Hall
- 2**            **Ava Craine** (International Relations and Journalism and Mass Communication)  
3:30-        Dayanara Sanchez (International Relations, French)  
4:15pm      **Mentor(s): Brian Lai** (Political Science)  
2nd  
Floor        *Competing Tides: Samoa in the Shifting Dynamics of Global Policy*  
Hall
- 3**            **Charles Silver** (Political Science, Finance, and Economics)  
3:30-        Caden Shetler (Political Science)  
4:15pm      **Mentor(s): Brian Lai** (Political Science)  
2nd  
Floor        *Between the Eagle and the Dragon: Palau at the Crossroads of Global  
Diplomacy*  
Hall
- 4**            **Connor DeGroot** (Political Science, Philosophy)  
3:30-        Thomas Mayer (Political Science)  
4:15pm      **Mentor(s): Brian Lai** (Political Science)  
2nd  
Floor        *Journey to the East: Nauruan Foreign Policy amidst U.S. - China Competition*  
Hall
- 5**            **Josie Boyle** (English (Publishing) and Communication Studies)  
3:30-        **Mentor(s): Adam Hooks** (English)  
4:15pm      *Shakespeare in Iowa: Reading and Teaching in the Humanities*  
2nd  
Floor  
Hall
- 6**            **Sarah Guilfoyle** (Political Science)  
3:30-        **Mentor(s): Brian Lai** (Political Science)  
4:15pm      *The Impact of Regime Type on the Effect of Sanctions on Income Inequality*  
2nd

Floor  
Hall

**7**      **Grace Paxton** (Physics, Astronomy)  
3:30-      **Mentor(s): Jane Nachtman** (Physics & Astronomy)  
4:15pm      *Simulating Nuclear Sources in Lunar Environments using Eos and RATPAC*  
2nd  
Floor  
Hall

**8**      **Abigail Zimmerman** (Biology)  
3:30-      **Mentor(s): Stefan Strack** (Neurosci & Pharmacology)  
4:15pm      *Investigating Neurodegeneration in Mouse Models of a Rare*  
2nd      *Neurodevelopmental Syndrome*  
Floor  
Hall

**9**      **Lucy Blissenbach** (Education Studies and Human Relations)  
3:30-      **Mentor(s): Duhita Mahatmya** (Psych & Quant Foundations)  
4:15pm      *Investigating the Association between Parent Work Stress and Child Academic*  
2nd      *Outcomes: A Scoping Review*  
Floor  
Hall

**10**      **Ava Goettel** (Exercise Science)  
3:30-      **Mentor(s): Chooza Moon** (Nursing)  
4:15pm      *Rest activity rhythms and metabolic outcomes of midlife women before and*  
2nd      *after menopause in Midlife in the United States Study*  
Floor  
Hall

**11**      **Keegan Nissen** (Speech and Hearing Science)  
3:30-      **Mentor(s): Elizabeth Walker** (Communic Sci & Disorders)  
4:15pm      *Impact of Hearing Profiles on Developmental Outcomes: Comparing Children*  
2nd      *with Unilateral or Bilateral Hearing Loss and Normal Hearing*  
Floor  
Hall

- 12**      **Gabriel Postacchini** (Computer Science and Mathematics)  
3:30-      **Mentor(s): Laurent Jay** (Mathematics)  
4:15pm      *A New Error Prediction Algorithm for Fully Implicit Runge–Kutta Solvers*  
2nd  
Floor  
Hall
- 13**      **Tate Steig** (Interdepartmental Studies)  
3:30-      **Mentor(s): Katheryn Rothenberg** (Biology)  
4:15pm      *Understanding the Signs, epithelial cancer cell metastasis tags and migration*  
2nd      *processes*  
Floor  
Hall
- 14**      **Connor Baggot** (Computer Science/Pre-Med)  
3:30-      **Mentor(s): Karin Hoth** (Psychiatry) | **Chooza Moon** (Nursing)  
4:15pm      *Dim Light Melatonin Onset and Functional Connectivity in Later Life Adults*  
2nd  
Floor  
Hall
- 15**      **Eva Singh** (Computer Science and Engineering)  
3:30-      **Mentor(s): Joe Reinhardt** (Biomedical Engineering) | **Syed Soheil**  
4:15pm      **Hosseini** (Radiology)  
2nd      *Investigating Wasserstein Generative Adversarial Networks (W-GANs) in*  
Floor      *Learning 2D Probability Distributions*  
Hall
- 16**      **Madelyn Grueter** (Neuroscience)  
3:30-      **Mentor(s): Hanna Stevens** (Psychiatry)  
4:15pm      *Comparison of Striatal Neuron Density Across Different Routes of CHPG*  
2nd      *Administration*  
Floor  
Hall
- 17**      **Nathan Fassett** (Neuroscience)  
3:30-      **Mentor(s): Adele Stewart** (Neurosci & Pharmacology)  
4:15pm      *Investigating sex differences in the dopamine-insulin system*  
2nd

Floor  
Hall

**18**      **Rebecca Flint** (Biomedical Engineering)  
3:30-      Maanit Sheth (Biomedical Engineering)  
4:15pm    **Mentor(s): Edward Sander** (Biomedical Engineering) | **James**  
2nd        **Ankrum** (Biomedical Engineering)

Floor  
Hall      *Influence of Media Composition and Fibroblast Co-Culture on Morphological  
and Adipogenic features in Heterotypic Adipose Spheroids*

**19**      **Katia Janik** (Neuroscience)  
3:30-      **Mentor(s): Hans Joachim-Lehmler** (Occup & Environ Health) | **Laura**  
4:15pm    **Dean** (Occup & Environ Health)

2nd        *Analysis of 2,2',5,5'-Tetrachlorobiphenyl-4-ol (4-OH-PCB52) in Liver Tissue of*  
Floor      *Female Adolescent Rats Exposed via Polymeric Implants*  
Hall

**20**      **Emma Demuth** (Neuroscience)  
3:30-      **Mentor(s): Moonley Tung** (Pediatrics)

4:15pm    *Clinical utility of long-read nanopore-based whole genome sequencing*  
2nd  
Floor  
Hall

**21**      **Arissa Khan** (Physics, Chemistry)  
3:30-      **Mentor(s): Connor Feltman** (Physics & Astronomy) | **Allison Jaynes** (Physics &  
4:15pm    Astronomy)

2nd        *OCHRE Rocket: Langmuir Probe to Analyze Plasma in the Magnetosphere*  
Floor  
Hall

**22**      **Megan Miskovic** (Neuroscience)  
3:30-      **Mentor(s): Ryan Lalumiere** (Psychological Brain Sci) | **Alexa Cohill-**  
4:15pm    **Milanick** (Psychological Brain Sci)

2nd        *Investigating Rodent Sex Differences in the Self-administration of Cocaine*  
Floor  
Hall

- 23**      **Isaac O'Toole** (Biochemistry and Molecular Biology)  
 3:30-      **Mentor(s): Colin Kenny** (Surgery)  
 4:15pm  
 2nd      *Defining the Role of PAX Paralogs in Uveal Melanoma*  
 Floor  
 Hall
- 24**      **Avery Norman** (Geoscience)  
 3:30-      **Mentor(s): Joseph Honings** (IHR Hydroscience Eng)  
 4:15pm      *Geologic Hydrogen Potential of the Midcontinent Rift System in Iowa, USA:  
 2nd      Background and Preliminary Research Efforts Using Legacy Data*  
 Floor  
 Hall
- 25**      **Braden Carne** (Physics, Astronomy, Math)  
 3:30-      **Mentor(s): Jasper Halekas** (Physics & Astronomy)  
 4:15pm      *Electron Behavior Across the Alfvén Surface: Recent Findings from Parker Solar  
 2nd      Probe*  
 Floor  
 Hall
- 26**      **Ava Hunt** (Neuroscience)  
 3:30-      **Mentor(s): Michelle Voss** (Psychological Brain Sci) | **Jessica  
 4:15pm      Frame** (Psychological Brain Sci)  
 2nd      *Exploring the Associations Between White Matter Hyperintensities and Spatial  
 Floor      Navigation Performance in Non-Demented Older Adults*  
 Hall
- 27**      **Hana Burkart** (Computer Science and Engineering)  
 3:30-      **Mentor(s): Joe Reinhardt** (Biomedical Engineering) | **Seyed Soheil  
 4:15pm      Hosseini** (Radiology)  
 2nd      *Investigating Variational Autoencoders (VAEs) in Learning One-Dimensional  
 Floor      Manifolds Embedded in Two-Dimensional Space*  
 Hall
- 28**      **Emma Pickett** (Biology)  
 3:30-      **Mentor(s): Donna Santillan** (Obstetrics/Gynecology)  
 4:15pm  
 2nd

Floor *Maternal and Fetal Liver Gene Expression Responses to Perfluorooctane*  
Hall *Sulfonic Acid (PFOS) Exposure in Mice.*

**29** **Landon Moran** (Mathematics)

3:30- **Mentor(s): Jane Nachtman** (Physics & Astronomy)

4:15pm *Developing Technical and Engineering Skills for DUNE*

2nd

Floor

Hall

**30** **Landen Freeman** (Physics, Math)

3:30- **Mentor(s): Matheus Hostert** (Physics & Astronomy)

4:15pm *Neutrino Oscillation and the Mass Ordering Problem at JUNO*

2nd

Floor

Hall

**31** **Vincent Ruiz** (Neuroscience)

3:30- **Mentor(s): Serena Gumusoglu** (Obstetrics/Gynecology) | **Robert**

4:15pm **Taylor** (Psychiatry)

2nd

*Prenatal Exposure to PFOS Alters Behavior, Vasculature and Myelination in*

Floor *Mouse Offspring*

Hall

**32** **Abdul Quraishi** (Chemistry BA)

3:30- **Mentor(s): Darrin Thompson** (Ctr Hlth Effect Of Enviro) | **David**

4:15pm **Cwiertny** (Civil-Environmental Engin)

2nd

*Assessing Fluoride Concentrations in Iowa's Groundwater and Drinking Water:*

Floor *Implications for Public Health and Water Management*

Hall

**33** **Olivia Sassman** (Neuroscience)

3:30- **Mentor(s): John Wemmie** (Psychiatry)

4:15pm *Role of acid-sensing ion channel 1A (ASIC1A) in stress-induced mechanisms of*  
2nd *opioid tolerance*

Floor

Hall

- 34**      **Brandon Cole** (Biomedical Sciences)  
3:30-      **Mentor(s): Erin Talbert** (Health Sport & Human Phys)  
4:15pm      *TGF-beta Suppresses Expression of CoA Synthesis Enzymes*  
2nd  
Floor  
Hall
- 35**      **Savannah Downing** (Music Therapy and Psychology)  
3:30-      **Mentor(s): Abbey Dvorak** (Music)  
4:15pm      *Music-Assisted Relaxation for Stress Management in Pediatric Oncology*  
2nd  
Floor  
Hall
- 36**      **Ryan Dunn** (Physics, Astronomy, Mathematics)  
3:30-      **Mentor(s): Jane Nachtman** (Physics & Astronomy)  
4:15pm      *Study of Hybrid Neutrino Detector Deployment for Weapons Test Verification*  
2nd  
Floor  
Hall
- 37**      **Parker Nicks** (Chemistry, Math)  
3:30-      **Mentor(s): Tori Forbes** (Chemistry) | **Nicholas Dahlen** (Chemistry)  
4:15pm      *Isolation of a Thorium Peroxide Complex to Model High Activity Speciation*  
2nd  
Floor  
Hall
- 38**      **Marissa Majewski** (Chemistry)  
3:30-      **Mentor(s): Florence Williams** (Chemistry)  
4:15pm      *Tuning Florescence with Boron*  
2nd  
Floor  
Hall
- 39**      **Nicholas Cory** (Human Physiology)  
3:30-      **Mentor(s): Jared Mclendon** (Pharm Sci & Exper Therap)  
4:15pm      *Identify and prioritize candidate cytoskeletal adapter proteins for heart therapy.*  
2nd

Floor  
Hall

**40**      **Neil Manickam** (Psychology)  
3:30-      **Mentor(s): Aislinn Williams** (Psychiatry) | **Isaias Herring** (Psychiatry)  
4:15pm      *16p11.2dp/+: A Microduplication with Macro Implications*  
2nd  
Floor  
Hall

**41**      **Audrey Coleman** (Biochemistry & Molecular Biology)  
3:30-      **Mentor(s): Ronald Weigel** (Surgery)  
4:15pm      *The Role of TFAP2c in Tumorigenesis and Progression in HER2+ Breast Cancer*  
2nd  
Floor  
Hall

**42**      **Isabella Holtze** (Cinema)  
3:30-      Marisa Rodriguez (Theater Arts)  
4:15pm      **Mentor(s): Stephanie Miracle** (Dance) | **Daniel Fine** ()  
UCC-  
2520D      *FAKERS CLUB: Fanny and Calvin*

**43**      **William Sprengelmeyer** (Biology)  
3:30-      **Mentor(s): Tiffany Adrain** (Earth, Envir, Sustainblty) | **John Doershuk** (State  
4:15pm      Archaeologist)  
UCC-  
2520D      *3D Scanning and Publishing Paleontological Collections: Dolly the Mastodon*

**44**      **Kristin To** (Computer Science)  
3:30-      Calvin Czeschin (Cinema & Screenwriting)  
4:15pm      **Mentor(s): Kaia Olsen** (Cinematic Arts)  
UCC-  
2520D      *Using 3D Gaussian Splatting (3DGS) for Cultural Access at the Stanley Museum*

**45**      **Mayra Gomez** (Political Science)  
3:30-      Eric Newton (Computer Science, Music)  
4:15pm      **Mentor(s): Nicole Novak** (CommunityBehavioralHealth) | **Julianna  
Pacheco** (Political Science)

UCC- 2520D *The Iowa Vital Voices Project: Participatory action research to promote Latino civic engagement, political voice, and community health*

**46 Kathit Patel** (Biomedical Sciences)  
3:30- **Mentor(s): Jon Resch** (Neurosci & Pharmacology) | **Trevor Butler** (Biology)  
4:15pm *Investigating Lateral Hypothalamic Area and Periventricular Hypothalamus Mediated Thirst.*  
UCC- 2520D

**47 Erin Morrow** (Health Studies)  
3:30- **Mentor(s): Juliana Souzatarico** (Nursing)  
4:15pm *Engaging Rural Communities to Understand Psychosocial Stress Impacting Brain Health in Latino Middle-Aged and Older Adults*  
UCC- 2520D

**48 Samuel Buman** (Political Science)  
3:30- **Mentor(s): Brian Lai** (Political Science)  
4:15pm *Are Terrorists Using Generative AI to Spread Propaganda?*  
UCC- 2520D

**49 Riley Rosenmeyer** (Neuroscience)  
3:30- Mya Messenger (Health and Human Physiology)  
4:15pm **Mentor(s): Shujie Yang** (Pathology)  
UCC- 2520D *Developing Novel Endometrial Cancer Drug Treatments using Patient-Derived Xenograft Models In-Vivo and In-Vitro*

**50 Kassandra Sigafus** (Biology)  
4:20- **Mentor(s): Bryan Phillips** (Biology)  
5:05pm *Is ABCF-1 the Missing Link in the RNA Processing Body Assembly Pathway in C. elegans?*  
2nd Floor Hall

**51 Katie Noll** (Music Therapy)  
4:20- **Mentor(s): Jonathan Allen** (Music)  
5:05pm *The Role of the Pelvic Floor in Respiration: Considerations for Brass Pedagogy*  
2nd

Floor  
Hall

**52**      **Noura Ibrahim** (public health)  
4:20-      **Mentor(s): Nichole Nidey** (Epidemiology) | **Jonathan Platt** (Epidemiology)  
5:05pm      *Maternal Health in Migrant Communities (public health related)*  
2nd  
Floor  
Hall

**53**      **Annika Ellis** (Nursing)  
4:20-      **Mentor(s): Chi Nai Ching** (Nursing) | **Kyuri Lee** (Nursing)  
5:05pm      *Profiling verbal interactions between persons with nursing home staff and  
persons with dementia*  
2nd  
Floor  
Hall

**54**      **Kynan Renshaw** (Human Physiology)  
4:20-      **Mentor(s): Charles Jennissen** (Emergency Med)  
5:05pm      *Infant Safe Sleep Practices of Rural Iowa Adolescents*  
2nd  
Floor  
Hall

**55**      **Jack Olson** (Environmental Science (Hydrology))  
4:20-      **Mentor(s): Benjamin Swanson** (Earth, Envir, Sustainblty)  
5:05pm      *Bank Erosion Evaluation of Camp Cardinal Creek*  
2nd  
Floor  
Hall

**56**      **Taylor Lawrence** (Microbiology)  
4:20-      **Mentor(s): Thomas Kehl Fie** (Microbiology & Immunology) | **Riley  
McFarlane** (Microbiology & Immunology)  
5:05pm      *Identifying regulators of the S. aureus superoxide dismutases*  
2nd  
Floor  
Hall

- 57**      **Leah Aitchison** (Health and Human Physiology)  
4:20-      **Mentor(s): Lucas Carr** (Health Sport & Human Phys)  
5:05pm      *Patient and Provider's Perceived Acceptability of an Exercise is Medicine*  
2nd      *Protocol*  
Floor  
Hall
- 58**      **Samuel Lindgren** (Neuroscience)  
4:20-      **Mentor(s): Ryan Lalumiere** (Psychological Brain Sci) | **Aspen**  
5:05pm      **Holm** (Psychological Brain Sci)  
2nd      *The role of basolateral amygdala-medial entorhinal cortex pathway in memory*  
Floor      *strength and precision*  
Hall
- 59**      **Ava Nollen** (Japanese, History)  
4:20-      **Mentor(s): Cory Young** (History)  
5:05pm      *Beyond Banh Mi: Vietnamese Entrepreneurship in New Orleans from the Fall of*  
2nd      *Saigon through Hurricane Katrina, 1975-2011*  
Floor  
Hall
- 60**      **Calla Brunkan** (History and Social Studies Secondary Education)  
4:20-      **Mentor(s): Colin Gordon** (History)  
5:05pm      *Letters from the Heart and Mind: The Vietnam War Correspondence Between*  
2nd      *Dick and Linda Kerber*  
Floor  
Hall
- 61**      **Delaney Sondgeroth** (Biomedical Engineering)  
4:20-      **Mentor(s): Sarah Gerard** (Biomedical Engineering)  
5:05pm      *Automated Analysis of Kidney Structure using Scanning Electron Microscopy*  
2nd      *and Deep Learning*  
Floor  
Hall
- 62**      **Sophia Heim** (Environmental Science)  
4:20-      **Mentor(s): Hans Joachim-Lehmler** (Occup & Environ Health) | **Nicole**  
5:05pm      **Breese** (Graduate College-Admin)  
2nd

Floor      *Voluntary Oral Dosing of Polychlorinated Biphenyls in Mice: A Refinement of*  
Hall      *Traditional Gavage Techniques*

**63**      **Alexandra Gutierrez** (Public Health)

4:20-      **Mentor(s): Hans Joachim-Lehmler** (Occup & Environ Health) | **Laura**

5:05pm      **Dean** (Occup & Environ Health)

2nd

Floor

Hall

*Counting Astrocytes: A Flow Cytometry Screen for Culture Purity*

**64**      **Piper Sandage** (History)

4:20-      **Mentor(s): Shane Bobrycki** (History)

5:05pm      *John Paston and His Sons: Knighthood*

2nd

Floor

Hall

**65**      **Justin Weber** (History)

4:20-      **Mentor(s): Elizabeth Yale** (History)

5:05pm      *Virgin Troops, Maiden Cities, Monstrous Men: Gender, Siege Conduct & Rhetoric*

2nd

Floor

Hall

*During the English Civil Wars*

**66**      **Grace Tesene** (Biomedical Engineering)

4:20-      **Mentor(s): Steven Offer** (Pathology)

5:05pm      *Partial alternative splicing of dihydropyrimidine dehydrogenase in carriers of*

2nd

Floor

Hall

*rs75017182 explains modest association between the variant and severe toxicity to 5-FU relative to other biomarkers*

**67**      **Ellie Felderman** (History and Ancient Civilizations)

4:20-      **Mentor(s): Nick Yablon** (History)

5:05pm      *Politics and the City: The New Yorker's Editorial Response to the Rise of Political*

2nd

Floor

Hall

*Consciousness Among Audiences.*

- 68**      **Fiona Holmes** (Astronomy, Applied physics)  
4:20-      **Mentor(s): Valerie Payre** (Earth, Envir, Sustainblty)  
5:05pm      *Effects of Grain Size On Visible/Near Infrared Signals In Feldspar-Bearing*  
2nd      *Terrains On Mars.*  
Floor  
Hall
- 69**      **Leah Stringer** (History, Religious Studies)  
4:20-      **Mentor(s): Elizabeth Yale** (History)  
5:05pm      *"A perfect pattern of Christianity": Good, Christian Wives and Women in Late*  
2nd      *Medieval and Early Modern Britain*  
Floor  
Hall
- 71**      **Tobias Wood** (History / Secondary Education)  
4:20-      **Mentor(s): Robert Roupail** (History)  
5:05pm      *Lost in Translation: The Peace Corps and Postcolonial Language Politics in*  
2nd      *Indonesia*  
Floor  
Hall
- 72**      **Michael Danos** (History, Philosophy, Ethics and Public Policy)  
4:20-      **Mentor(s): Ashley Howard** (History)  
5:05pm      *Oh Kinsmen!: Federal Surveillance and the Search for Black Radical Unity, 1918-*  
2nd      *1924*  
Floor  
Hall
- 73**      **Brett Wasick** (Physics)  
4:20-      **Mentor(s): Ravitej Uppu** (Physics & Astronomy)  
5:05pm      *Erbium Doped PbWO4 Thin Films for Applications in Quantum Repeaters*  
2nd  
Floor  
Hall
- 74**      **Disha Chawla** (Biology)  
4:20-      **Mentor(s): Hanna Stevens** (Psychiatry)  
5:05pm  
2nd

Floor 16p11.2 Deletion in Male Mice leads to Impaired Placentation Detrimental to  
Hall Fetal Growth

**75** **Minou Emmad** (Physics, CS, Math)

4:20- **Mentor(s): Michael Schnieders** (Biomedical Engineering)

5:05pm *Protonation Coupling in Zinc Finger–DNA Recognition Explored by Polarizable*  
2nd *CpHMD*

Floor

Hall

**76** **Caden Noeller** (Mechanical Engineering & Mathematics)

4:20- **Mentor(s): Shaoping Xiao** (Mechanical Engineering) | **Jiefeng**

5:05pm **Jiang** (Psychological Brain Sci)

2nd

Floor

Hall

*Evolution of Human Trust in Artificial Intelligence*

**77** **Vivian Odubasa** (Microbiology and Global Health)

4:20- **Mentor(s): Mark Santillan** (Obstetrics/Gynecology)

5:05pm *The role of PFAS exposure in male partners in pregnancy outcomes.*

2nd

Floor

Hall

**78** **Bailey Newberry** (Health Promotion)

4:20- **Mentor(s): Serena Gumusoglu** (Obstetrics/Gynecology)

5:05pm *Maternal Brain and Behavior in a Model of Chronic Gestational IL-17*

2nd

Floor

Hall

**79** **Chiara Dusanek** (Music Therapy)

4:20- **Mentor(s): Abbey Dvorak** (Music)

5:05pm *Legacy Project Songwriting for Families Grieving Loss from Substance Use*  
2nd *Disorder*

Floor

Hall

- 80**      **Emily Formella** (Biomedical Engineering)  
4:20-      **Mentor(s): Kristan Worthington** (Biomedical Engineering) | **Richard**  
5:05pm    **Cliver** (Biomedical Engineering)  
2nd  
Floor      *The role of mechanotransduction pathways in chorioretinal cell response to*  
Hall      *simulated microgravity*
- 81**      **Matieis Mayes** (Double major: Biochemistry & Molecular Biology and Human  
4:20-      Physiology)  
5:05pm    **Mentor(s): Aparna Pathmanathan** (Anatomy & Cell Biology) | **Amy**  
2nd      **Ryan** (Anatomy & Cell Biology)  
Floor      *Generation of a novel iPSC tool to understand the club-cell specific role of CFTR*  
Hall      *in the airway epithelium*
- 82**      **Nina Osborne** (Geographical and Sustainability Science; Environmental Policy  
4:20-      and Planning)  
5:05pm    **Mentor(s): Susan Meerdink** (Earth, Envir, Sustainblty)  
2nd  
Floor      *Effects of Elevated Atmospheric CO2 and Temperature on Leaf Spectral*  
Hall      *Reflectance in Quercus macrocarpa*
- 83**      **Liberty Nyberg** (Microbiology, pre-pharmacy)  
4:20-      **Mentor(s): Jessica Tucker** (Microbiology & Immunology) | **Kyle**  
5:05pm    **Rapchak** (Microbiology & Immunology)  
2nd  
Floor      *Knockdown of Brf1 dependent RNA polymerase III activity causes differential*  
Hall      *expression of transcripts during MHV68 infection*
- 84**      **Emily Roberts** (Microbiology and Music performance)  
4:20-      **Mentor(s): Jeremiah Johnson** (Microbiology & Immunology) | **Lincoln**  
5:05pm    **Lewerke** (Microbiology & Immunology)  
2nd  
Floor      *The Role of Calprotectin in Nutritional Immunity: Inflammatory Dynamics During*  
Hall      *Campylobacter Infection*
- 85**      **Nikolas Vinovich** (Physics, Statistics, Mathematics)  
4:20-      **Mentor(s): Jane Nachtman** (Physics & Astronomy)  
5:05pm    *Timing Calibration in the Eos Hybrid Neutrino Detector*  
2nd

Floor  
Hall

**86**      **Darren Timmerman** (Applied Physics)  
4:20-      **Mentor(s): Ravitej Uppu** (Physics & Astronomy)  
5:05pm      *Large-Scale Multi-Emitter Tracking for Temperature-Dependent*  
2nd      *Photoluminescence*  
Floor  
Hall

**87**      **Nancy Nahra** (Computer Science, Mathematics)  
4:20-      **Mentor(s): Joe Reinhardt** (Biomedical Engineering) | **Seyed Soheil**  
5:05pm      **Hosseini** (Radiology)  
2nd      *Investigating Diffusion Models in Learning and Reconstructing Two-Dimensional*  
Floor      *Probability Distributions*  
Hall

**88**      **Paige Liebrecht** (Environmental Science)  
4:20-      **Mentor(s): Matthew Dannenberg** (Earth, Envir, Sustainblty)  
5:05pm      *Effects of elevated atmospheric CO2 and temperature on photosynthetic*  
2nd      *capacity in bur oak (Quercus macrocarpa)*  
Floor  
Hall

**89**      **Abby McLeod** (Neuroscience)  
4:20-      **Mentor(s): Anna Dabrowski** (Pediatrics)  
5:05pm      *Effects of viral and genetic strategies on synaptic microcircuitry*  
2nd  
Floor  
Hall

**90**      **Augustin Heitman** (Physics, Astronomy, Math)  
5:10-      **Mentor(s): Jane Nachtman** (Physics & Astronomy) | **Yasar Onel** (Physics &  
5:55pm      Astronomy)  
2nd      *A Comparative Analysis of Timing Data from a Hybrid Neutrino Detector*  
Floor      *Between Two Media*  
Hall

- 91**      **Kelsey Klassen** (Speech and Hearing Science)  
5:10-      **Mentor(s): Elizabeth Walker** (Communic Sci & Disorders)  
5:55pm      *Reading Motivation and Reading Comprehension in Adolescents with Hearing*  
2nd      *Loss and Typical Hearing*  
Floor  
Hall
- 92**      **Seighin McElderry** (Biology)  
5:10-      **Mentor(s): Abbey Dvorak** (Music) | **Livia Umeda** (Music)  
5:55pm      *Music and Mild Cognitive Impairment: A Scoping Review*  
2nd  
Floor  
Hall
- 93**      **Heidi Du** (Biomedical Sciences)  
5:10-      Carolyn McCann (Psychology)  
5:55pm      **Mentor(s): Grazyna Kochanska** (Psychological Brain Sci) | **Haley**  
2nd      **Herbert** (Psychological Brain Sci)  
Floor      *Parents' Trait Anger and Mental Health Symptoms Predict Hostile*  
Hall      *Representations of Their Children*
- 94**      **Rachel Preves** (Psychology)  
5:10-      Arely Ramirez (Psychology, Political Science)  
5:55pm      **Mentor(s): Grazyna Kochanska** (Psychological Brain Sci) | **Haley**  
2nd      **Herbert** (Psychological Brain Sci)  
Floor      *Early Parental Affect, Child Responsiveness, and Toddler Internalization*  
Hall
- 95**      **Sean Strand** (Biology)  
5:10-      **Mentor(s): Tina Tootle** (Biology) | **Ashley Goll** (Anatomy & Cell Biology)  
5:55pm      *Implications of Fascin During Drosophila Oogenesis*  
2nd  
Floor  
Hall
- 96**      **Grace Gutzman** (Microbiology)  
5:10-      **Mentor(s): Mary Wilson** (Internal Medicine) | **Natalie Jarvis** (Microbiology &  
5:55pm      Immunology)  
2nd

Floor     *Dietary intake is a determinant of the course of disease and the inflammatory*  
Hall     *response in a murine model of visceral leishmaniasis*

**97**     **Abigail Edwards** (Biomedical Engineering)

5:10-     **Mentor(s): Geb Thomas** (Industrial Engineering)

5:55pm     *Assessing Skill from Behaviors Analyzed in Videos of Knee Arthroscopy*  
2nd

Floor     *Authors: Abigail Edwards, Geb Thomas, Evan Williams, Steven Long, Richard*  
Hall     *VanTienderen, Donald D. Anderson*

**99**     **Jamison Stone** (History)

5:10-     **Mentor(s): Robert Roupail** (History)

5:55pm     *The Palm Sunday Tornado Outbreak 1965 and the Critical Turning Point in*  
2nd     *Disaster Legislation.*

Floor  
Hall

**100**     **Ryley Blake** (Biology)

5:10-     Madeline Roberts (Neuroscience)

5:55pm     **Mentor(s): Jan Fassler** (Biology)

2nd     *Impact of Heat on Physical and Physiological Characteristics of Candida*  
Floor     *albicans Biofilms*  
Hall

**101**     **Madeline Broghammer** (Microbiology and Biochemistry and Molecular  
5:10-     Biology)

5:55pm     **Mentor(s): Hillel Haim** (Microbiology & Immunology)

2nd     *Deep mutational scanning of the HIV-1 capsid protein*

Floor  
Hall

**102**     **Mia Zdionica** (Human Physiology)

5:10-     **Mentor(s): Martine Dunnwald** (Anatomy & Cell Biology) | **Lindsey**

5:55pm     **Rhea** (Anatomy & Cell Biology)

2nd     *Interferon Regulatory Factor 6 Influences Epidermal Differentiation*

Floor  
Hall

- 103**      **Vamsi Challa** (Biomedical Sciences and Physics)  
5:10-      **Mentor(s): Renata Pereira** (Internal Medicine) | **Ayushi Sood** (Internal  
5:55pm      Medicine)  
2nd  
Floor      *GDF15 Signaling Through GFRAL Mediates Metabolic Improvements in  
Hall      Response to Mitochondrial Stress*
- 104**      **Allison Stolte** (Microbiology)  
5:10-      **Mentor(s): Wendy Maury** (Microbiology & Immunology) | **Paige  
5:55pm      Richards** (Microbiology & Immunology)  
2nd  
Floor      *Investigating Novel Entry Inhibitor Efficacy During Filovirus Glycoprotein-  
Hall      mediated Infection*
- 105**      **Blake Etringer** (Economics, Political Science)  
5:10-      Josie Hartman (Political Science, Environmental Policy/Planning)  
5:55pm      **Mentor(s): Sara Mitchell** (Political Science) | **Elise Pizzi** (Political Science)  
2nd  
Floor      *Disasters, Migration, and Violence Lab: Disaster Response in Asian Nations  
Hall*
- 106**      **Brendyn Little** (Astronomy and Physics)  
5:10-      Fiona Holmes (Astronomy, Physics, and Geoscience)  
5:55pm      **Mentor(s): David Nataf** (Physics & Astronomy)  
2nd  
Floor      *Revisiting Stellar Populations of Low-Extinction Fields in the Galactic Bulge  
Hall*
- 107**      **Lauren Smith** (Neuroscience, Anthropology)  
5:10-      **Mentor(s): Gordon Buchanan** (Neurology)  
5:55pm      *Lack of Central Serotonin Neurons Alters Respiratory Responses to CO<sub>2</sub> in a  
2nd  
Floor      Mouse Model of Epilepsy  
Hall*
- 108**      **Seren Castellano** (Biology and Anthropology)  
5:10-      **Mentor(s): Maurine Neiman** (Biology)  
5:55pm  
2nd

Floor *Unraveling Ribbon Worm Diversity: Biodiversity and Systematics of Antarctic*  
Hall *Nemertea*

**109** **Jacqueline Ott** (Health and Human Physiology)

5:10- **Mentor(s): Erin Talbert** (Health Sport & Human Phys)

5:55pm *Understanding the mechanistic pathway in which TGF- $\beta$  drives metabolic*  
2nd *dysfunction*

Floor

Hall

**110** **Abdul Quraishi** (Chemistry BA)

5:10- **Mentor(s): Renee Cole** (Chemistry) | **Vinay Bapu Ramesh** (Chemistry)

5:55pm *Exploring How Undergraduate Chemistry Labs Foster Science Practice*  
2nd *Competencies*

Floor

Hall

**111** **Tyler Draayer** (Biology (Genetics and Biotechnology), Pre-Medicine)

5:10- **Mentor(s): Karen Cyndari** (Emergency Med) | **Mitchell**

5:55pm **Coleman** (Orthopaedics and Rehab)

2nd *Does Oxidative Stress Cause Immune Cell Degranulation in Osteoarthritic*  
Floor *Synovium*

Hall

**112** **Elleri Herman** (Human Physiology)

5:10- **Mentor(s): Gordon Buchanan** (Neurology)

5:55pm *Time-of-Day Influences on Seizure Severity and Mortality in Bmal1 Knockout*  
2nd *Mice*

Floor

Hall

**113** **Josephine Norris** (Psychology)

5:10- **Mentor(s): Teresa Treat** (Psychological Brain Sci) | **Solange**

5:55pm **Bolger** (Psychological Brain Sci)

2nd *College Students Underperceive Same-Sex Peers' Use of Cannabis-Related*  
Floor *Protective Behavioral Strategies*

Hall

- 114**      **Ella Schlueter** (Chemistry, Sociology)  
5:10-      **Mentor(s): Donna Santillan** (Obstetrics/Gynecology)  
5:55pm      *Decreased Fetal Movement Association with Adverse Maternal and Child*  
2nd      *Outcomes*  
Floor  
Hall
- 115**      **Maxwell Shumaker** (Biochemistry and Molecular Biology BS, Chemistry BA)  
5:10-      **Mentor(s): Lori Wallrath** (Biochem & Molecular Bio)  
5:55pm      *Identification of mis-regulated genes in a fruit fly model of the vision disorder*  
2nd      *Retinitis Pigmentosa*  
Floor  
Hall
- 116**      **Amya Saxena** (Biochemistry and Molecular Biology (Pre-Med track))  
5:10-      **Mentor(s): Lori Wallrath** (Biochem & Molecular Bio)  
5:55pm      *Treating a Fruit Fly Model of Muscular Dystrophy with TGFbeta Pathway*  
2nd      *Inhibitors*  
Floor  
Hall
- 117**      **Noah Beem** (Environmental Bioscience and Geoscience)  
5:10-      **Mentor(s): Benjamin Swanson** (Earth, Envir, Sustainblty)  
5:55pm      *Avian Abundance and Diversity in Ashton Prairie*  
2nd  
Floor  
Hall
- 118**      **Alex Bock** (Biochemistry and Molecular Biology BS)  
5:10-      **Mentor(s): Sheila Baker** (Biochem & Molecular Bio)  
5:55pm      *Quantification of photoreceptor loss in mouse models of KCNV2 retinopathy*  
2nd  
Floor  
Hall
- 119**      **Na'lla Clarkson** (Therapeutic Recreation and African American Studies)  
5:10-      **Mentor(s): Cory Young** (History)  
5:55pm      *Returns and Registrations: An Analysis of Gradual Abolition ?*  
2nd

Floor *Paperwork in Cumberland County?*  
Hall

**120** **Jiya Patel** (Neuroscience)

5:10- **Mentor(s): Julie Gudenkauf** (Neurology)

5:55pm *ABO Blood Types and Patterns in Acute Stroke Population: Preliminary Analyses*  
2nd  
Floor  
Hall

**121** **Nathan Barlow** (Biomedical Science)

5:10- **Mentor(s): Gary Pierce** (Health Sport & Human Phys)

5:55pm *Smoking Contributes to the Structural Component of Higher Aortic Stiffness*  
2nd *Independent of COPD Status Among Older Adults*  
Floor  
Hall

**122** **Sophia Friton** (German, Global Health)

5:10- **Mentor(s): Daniel Liebzeit** (Nursing)

5:55pm *Exploring Transportation for Older Adults in Johnson County through the JCLC*  
2nd *2024 Survey*  
Floor  
Hall

**123** **Saina Narsian** (Neuroscience)

5:10- **Mentor(s): Gordon Buchanan** (Neurology)

5:55pm *Impact of Seizures on the Arousal Response to CO<sub>2</sub>*  
2nd  
Floor  
Hall

**124** **Jacob Bowen** (Psychology)

5:10- **Mentor(s): Ed Wasserman** (Psychological Brain Sci)

5:55pm *Pigeons' behavior in contingent and non-contingent reinforcement schedules:*  
2nd *Do they understand the difference?*  
Floor  
Hall

- 125**      **Caleb Powers** (Psychology)  
 5:10-      **Mentor(s): Leyre Castoruiz** (Psychological Brain Sci)  
 5:55pm      *The role of action-outcome contingency in pigeons' understanding of agency*  
 2nd  
 Floor  
 Hall
- 126**      **Olivia Heller** (Biochemistry)  
 5:10-      **Mentor(s): Jessica Tucker** (Microbiology & Immunology) | **Sheila**  
 5:55pm      **Gonzalez** (Microbiology & Immunology)  
 2nd  
 Floor      *Roles of tRNA splicing enzymes in Infection*  
 Hall
- 127**      **Bailey Vergara** (Journalism and Mass Communication)  
 5:10-      **Mentor(s): Bingbing Zhang** (Journalism & Mass Communi) | **Yasar**  
 5:55pm      **Onel** (Physics & Astronomy)  
 2nd  
 Floor      *Attitudes and Beliefs Regarding Generative AI Usage in Newsrooms Among*  
 Hall      *College Journalism Students*
- 128**      **Khushi Patel** (Public Health)  
 5:10-      **Mentor(s): Bengi Baran** (Psychological Brain Sci) | **Hazal Arpaci**  
 5:55pm      **Atmacaoglu** (Psychological Brain Sci)  
 2nd  
 Floor      *Sleep Dependent Consolidation of Visuospatial memory*  
 Hall
- 129**      **Adriana Castellano** (Marketing, Pre-Law)  
 5:10-      Alexis Collins ( Neuroscience)  
 5:55pm      Peter Nitsche (Biology)  
 UCC-      Tae Shaun Presswood (Exercise Science)  
 2520D      Katherine Prichard (Biology)  
**Mentor(s): Maurine Neiman** (Biology)  
*"Tentacle Tales: How Genome Architecture and Nutrient Availability Shape  
 Tissue Regeneration in a Freshwater Snail"*

- 130**      **Bahaaaldin Mohammad** (Biomedical Engineering, Electrical & Computer Engineering)  
5:10-  
5:55pm      **Mentor(s): Sajangoud Lingala** (Biomedical Engineering)  
UCC-  
2520D      *A Computational Pipeline for Reconstructing and Visualizing Advanced MRI Data Using BART*
- 131**      **Kylen Phillips** (Theatre Arts, Screenwriting Arts)  
5:10-      **Mentor(s): Caroline Clay** (Theatre Arts)  
5:55pm      *Duality, a short film by Kylen Phillips*  
UCC-  
2520D
- 132**      **Julia Correia** (3D Design)  
5:10-      **Mentor(s): Monica Correia** (Art, Art History & Design)  
5:55pm      *Indigenous Brazilian Weaving: Colors and Materials*  
UCC-  
2520D
- 133**      **Tara Joiner** (3D Design)  
5:10-      **Mentor(s): Monica Correia** (Art, Art History & Design)  
5:55pm      *Exploring Geometric Forms through Weaving*  
UCC-  
2520D
- 134**      **Sarah Dockery-Jackson** (Accounting, Entrepreneurship, 3D Design)  
5:10-      **Mentor(s): Monica Correia** (Art, Art History & Design)  
5:55pm      *Hand Woven Textiles for Home Decor*  
UCC-  
2520D
- 135**      **Shreyas Natarajan** (Biomedical Sciences)  
5:10-      Kathit Patel (Biomedical Sciences)  
5:55pm      Rohan Ramesh (Computer Science)  
UCC-      Rohith Senthil Kumar (Data Science)  
2520D      **Mentor(s): Isaac Samuel** (Surgery)  
  
*AI Image Analysis of Intraoperative Laparoscopic Gallbladder Surgery*

**136**

5:10- **Preethika Naveen** (Biomedical Engineering)

5:55pm **Mentor(s): Karen Cyndari** (Emergency Medicine)

2nd *The Interaction Between Serotonin, Dopamine, Histamine, and Norepinephrine-*  
Floor *related Drug Classes on Osteoarthritis Diagnosis*  
Hall