



CR 103

- 8:00 **Addressing Hate in Rock Springs, Wyoming;** Ian Fletcher
- 8:20 **Eichmann, Arendt, and The Holocaust: Understanding Blame and Justice in Genocide;** Alexander Allison
- 8:40 **History of the Chesapeake and Ohio Canal;** Peter Banzon
- 9:00 **How Cohorts Diminish COVID-19 Transmission and Mental Health Issues on College Campuses: A Policy Recommendation for Universities ;** CeeJay Berg
- 9:20 **Women in the Workforce;** Shelby Heaster
- 9:40 **Laramie Community Commerce Project;** Katherine Swenson
- 10:20 **Malcom Wallop K-12 Science Curriculum;** Emma Meese and Taylen Sewell
- 10:40 **Material Culture and Space in Medieval Childbirth: The Agency of Illuminated Manuscripts;** Emma Comstock
- 11:00 **Talking about Capitalism: An Analysis of the Failures of American Capitalism and the Narratives that Perpetuate the Falsehood of Success;** Holly Wodahl
- 11:20 **Queer Anxieties: Gender and Sexuality in 17th Century New England;** Rebecca Lovell
- 11:40 **Results and Recommendations from the University of Wyoming Student Food (In)Security Summit;** Nicole Morshead

CR 118

- 8:00 **Artistic Exploration and Representation of Mental Health;** Alannah Gee

- 8:20 **Self Perceptions of Belonging Among Members of the UW Nordic Ski Team;** Kailee Behunin
- 8:40 **The Business of Capitalizing on Culture: Onsen Industry in Japan;** Lillianna Mollett
- 9:00 **The Transition Into Renewable Resources;** Luke Taulbee
- 9:20 **The Weaponization of Feminism as a Mental Illness;** Stephanie Diamond
- 9:40 **Victim race salience and phenotypicality in a police officer use-of-force incident: A mock grand jury study.;** Isla Skinner
- 10:20 **An Artistic Exploration of Mental Health;** Brynja Stalcup
- 10:40 **Analyzing Individual's Electrodermal Activity (EDA) Following In-Session Weighing Experiment;** Chloe Nelson
- 11:00 **Excusing Peremptory Challenges: a Critique of Modern Jury Selection;** Jacob Lewis
- 11:20 **Motherhood and Identity;** Zoe Parks
- 11:40 **One Nation Under God: The Rise of Political Leaders as Religious Icons;** Allison Gross

CR 133

- 9:00 **Instrumented Plus Maze for Neuroscience Research;** Kathryn Arneson, Octavio Gonzalez Guerra Vazquez, Yazmin Montiel, Christian Morrison, Chad Muma, and Joana Olsen
- 9:30 **The Cowboy Claw - A Lunar Reusable Surface Anchoring Device for NASA EVA Operations;** Cameron Ball, Forrest Bucholz, Reese Romero, James Sheets, and Daniel Wenger
- 10:00 **Alternator Conversion;** Evan Lake, Bodi Morris, Robert Wenger, and Connor Wilkinson.
- 10:30 **Hybrid Integration Senior Design Project;** Louis Failoni, Chase Nickle, John T Peroulis, and Quinton Royle-Grimes
- 11:00 **9H Modular Solar Design;** William Baumchen, Thomas LaBuda, Jay Matter, Luke Norris, Jayden Riley, Mason Tomac, Zachary Woith, and Ryan Chan Yu Quan
- 11:30 **Collegiate Wind Competition;** Adam Balph, Eduardo Colin-Zarate, AJ Lewis, Brendan Phipps, Nar Trippel, and Mason Webelow.
- 1:30 **Sustainable Greenhouse;** Jacob Arment, Ithzel Felipe Castro, JT Herboldsheimer, Luke Jensen, Rylee Jones, Alex Kalan, Natasha Miller, and Quinn Newmark
- 2:00 **Pulse Jet Engine Testbed for Unsteady Pressure Sensor Software Characterization;** Spencer Bernard, Jacob Hays, Collin Jenkins, David Lemieux, Sean Mendick, Christian Smith, Bryce Stratton, and Donovan Whitehead

2:30 **The Design and Development of a Cost-Effective Boundary Layer Rake;** Keaton Bell, Tyler Clark, Elizabeth Erickson, Abigail Fearneyhough, Connor Heider, Tylen Redinger, and Benjamin Willis

CR 142

8:00 **An Assessment of Mobile Applications Targeting Speech Sound Disorders and Accent Modification;** Kathryn Sawyer

8:20 **Storyteller;** Evan Wambeke

8:40 **Student Employee Turnover in Laramie, Wyoming;** Cole Munari

9:00 **Ghostwriting, Fame, and Queer Identity in New York City;** Caitlyn Mlodzik

9:20 **Intellectual & Physical Disability: A Comprehensive Analysis on Media Representation;** Ashtyn Harmsen Grace Vigneri

9:40 **em forgotten: Creating Interactive Fiction;** Megan Cockett

10:20 **Creating The Match: A Journey into Multi-genre Filmmaking;** Riley Box

10:40 **Literary Tastes;** Shannon Fassler

11:00 **Medieval Courtesy Books Versus Contemporary Christian Self-Help Books: Societal and Religious Constructs of Women Over Six Hundred Years;** Amy Gabriel

11:20 **Quitting Social Media: A Personal Experiment;** Joenon Sulzen

11:40 **Modern Contact Lenses and Ocular Health;** Maccade Gerneau

CR 207

8:00 **Analyzing Crop Loss with Multitemporal Landsat 8 Images;** Jordan Jochems

8:20 **Landsat Images for Monitoring the Effectiveness of Invasive Management;** Traylin Bruegger

8:40 **Mapping Moisture Stress in a Wyoming Pasture with Landsat Images;** Cody Green

9:00 **Monitoring Vegetation Growth in a Disturbed Rangeland with Sentinel-2 Images;** Shelby Stith

9:20 **New fossil material from an Eocene Bridger Formation site (Wyoming): Depositional environment and taphonomic interpretations;** Austin Shaffer

- 9:40 **Wyoming Through New Eyes: A Podcast Considering Travel Via Multiple Perspectives;** Taylor Kennah and Carolanne Walls
- 10:00 **Business Model for Plant-Based Food Truck;** Irja Sandvik
- 10:20 **Gold and Gray;** Anna Hupp
- 10:40 **#SocialMedia - The New Universal Language;** Taylor Myers
- 11:00 **Human-Animal Relations in the Arctic;** Makayla Kocher
- 11:20 **Detecting Cars in Bad Weather Using Thermal Imagery;** Brady Wagstaff

CR 209

- 8:00 **Honors Capstone: Pulse Jet Engine;** Collin Jenkins
- 8:20 **Acylation of Proteins as a Distinct Method for Labeling;** Joe Ault
- 8:40 **Geotechnical Considerations for Design of Stormwater Runoff System;** Hannah Reiter
- 9:00 **Metallicity History of the Universe as the Function of Metal Dominated Absorption Features of Quasars;** Agnesh Pandey
- 9:20 **Pepper's Playhouse: A Residential Design;** Shianne Shaver
- 9:40 **Design and Utilization of a Microturbine at the Laramie WWTP;** Adam Russell
- 10:20 **The Final Blackout;** Abigail Blesi
- 10:40 **Reaction Kinetics of Municipal Wastewater Treatment with Temperature Effects;** Katelin Scheuerman
- 11:00 **The MP3 Smart Shuffler Honors Presentation;** Eric Van Wig
- 11:20 **Ethylene Synthesis by Genetically Modified Rhodococcus opacus PD630 on Synthetic Human Urine;** Alexandria Williams

CR 214

- 8:00 **A Potential Role of the Immune System in the Regulation of Brain Growth;** Mercedes Cassidy
- 8:20 **A Retrospective Study of the Influence of Climatic Variables on Hemorrhagic disease in North America;** Riley Rux

- 8:40 **Accessibility in Dentistry;** Victoria Weier
- 9:00 **Aquaporin-4 Channel Expression in Hypothalamic Regions: Assessing a Potential Intersection Between Glymphatic Clearance and Circadian Rhythmicity;** Hannah Rhymes
- 9:20 **Assessing the Implementation of a Behavioral Health Integration Model in a Rural, Nurse-Led Primary Care Clinic: Insights Gained and Recommendations for the Future;** Bailey Shafar
- 9:40 **Characterization of cellular pathological signatures in a mouse model of Alzheimer's Disease;** Allison Dodds
- 10:20 **Circadian Disruption is a Real Pain;** Taylor Haddock
- 10:40 **Clostridium difficile: A Difficult Diagnosis Made Possible by Real-Time PCR;** Karen Bauman
- 11:00 **Determining optimal sampling method for Mycoplasma bovis detection in American bison (Bison bison);** Erin Schwalbe
- 11:20 **Determining the role of morphology in reproductive isolation between two related s ubspecies;** Sydnie Fossberg
- 11:40 **Effects of water content on bumble bee heat tolerance;** Rachel Sucharski

CR 215

- 8:00 **A Family of Intrinsically Disordered Proteins Provide Protection to Biomolecules by Changing Structure During Desiccation;** Vincent Nicholson
- 8:20 **Acclimation to moderate altitude induces physiological adaptations in mice;** Aedian O'Connor
- 8:40 **Bioengineering of Light Controlled Proteins;** Caleb Price
- 9:00 **biotyping pasteuraceae sp. isolates from nasal samples of domestic sheep;** Luis Paredes
- 9:40 **Continuing Education Needs of Speech-Language Pathologists Regarding Children with Cleft Lip/Palate Across Areas of Varying Population Density;** Katelan Rogers
- 10:00 **Efficient quantitation of airborne viruses using water-soluble collection pads: Water-soluble collection pads improve and simplify air monitoring compared to cotton;** Mikkael Chick
- 10:20 **Exercise During the Juvenile Period Protects Against Cardiac Dysfunction Later in Life;** Megan Borders

CR 219

- 8:00 **Identification of Novel Protein and Cellular Pathway Interactions with Abnormal Spindle.**; Micah Conner
- 8:20 **Influence of RFamide Related Peptide 3 (RFRP-3) on ovarian cancer cells (SKOV-3 cell line).**; Bridger Sparks
- 8:40 **More Than Meets the Eye: Microplastic Accumulation in the Mountainous Snowpack of Wyoming.**; Anne Dalton
- 9:00 **Myxobacteria Antagonism: Different Behaviors in Different Situations.**; Jack Govaerts
- 9:40 **Orientation and Graft Effect on Sciatic Nerve Regeneration in the Rat Model.**; Abigail Brady
- 10:00 **Preclinical Studies on Sexual Dimorphism in Mouse Models of Human Brain Disorders.**; Ashleigh McManus
- 10:20 **Adverse Cardiopulmonary Effects of Propylene Glycol and Vegetable Glycerin from E-Cigarette Vapor.**; Brandon Phillips
- 10:40 **Fluid Intake and Prevalence of Nocturia in Geriatric Populations.**; Tara Kortlever

CR 222

- 8:00 **Identifying Gram positive rods from equine uterine samples.**; Magdalen Ringley
- 8:20 **Developing cold-chain independent storage methods for key biologics.**; Maxwell Packebush
- 8:40 **Isolation of Imperial Valley Virus and Sapphire II Virus in *Aragas cooleyi* from Imperial Valley, California through Cloning.**; Josie Pomrenke
- 9:00 **My long and winding road to pursuing my medical degree.**; Bailee Wistisen
- 9:20 **Understanding the role of iron in nutritional immunity during *Toxoplasma gondii* infection.**; Sai Kit Ng
- 9:40 **Role of Diet in Development and Recovery from Spinal Cord Injury in Zebrafish Larvae.**; Emily Purifoy
- 10:20 **Role of the Visual Arts in Conservation Research.**; John Edwards

- 10:40 **Sexual Dimorphism in Immunity to Acute Toxoplasmosis**; Kaatje Fisk
- 11:00 **What to Expect When You Have a Wound**; Taylor While
- 11:20 **Going Green? Seasonal changes in resource use and catch rates of small-bodied fishes coincide with timing of a cyanobacterial bloom**; Chloe Lyles
- 11:40 **Fridge Stalker: An Inventory Management App**; Umar Balogun Mohammed

CR 310

- 8:00 **Anerobic Membrane Bioreactor in a Wastewater Treatment Plant**; Shannon Bendtsen, Marie Doherty, Courtney Rainbolt, Adam Russell, and Katelin Scheuerman
- 8:30 **Brews with Drew & Crew**; Jacob Heil, Marco Machado, Megan Pachniak, Drew Rone, and Alexandria Williams
- 9:00 **Green Hydrogen Production**; Hunter Hasskamp, Grace Leahy, Kiana Lotvedt, Declan McDonald, and Grady Parrish
- 9:30 **LFP Recycling Plant**; Andrew Anderson, Christopher Consoliver, Aaron Emmert, Lucas Mead, and Joseph Reinicke
- 10:00 **Mobile GMP Facility Design for mRNA Vaccine Manufacturing and Distribution**; Riley Boltz, Gareth Flowers, Jessica Hawki, Payton Peterson and Deana Sadrieva

CR 314

- 8:00 **Automatic Solving of Real Jigsaw Puzzles with Computer Vision and Genetic Algorithms**; Duncan Caruthers, Jeffrey Michaelis, James Wheelock, and Colin Woods
- 8:30 **ASAR**; Tim Bourque, James Hoffman, James Lucid, and Samuel Riggs, Andrew Fuller
- 9:00 **C.A.T: Behavioral Biometrics to Perform Continuous Authentication**; Simon Beer, Trent Brown, Colten Gaines, and Jessa Gegax
- 9:30 **Automated Theorem Provers in Mathematics and Computer Science**; A. Stone Olguin
- 10:00 **ChronoNet**; Matthew Baker, Jarek Brown, Jason Fantl, Jacob Hendricks, and Parker Spires
- 10:30 **Fridge Stalker: An Inventory Management App**; Umar Balogun Mohammed, Tanner Selvig, Yun Chi Leong, and Zebulon Swope

- 11:00 **Mapping Future Human Trafficking Vulnerabilities;** William Brant, Carly Hutson, Teaghen Sweckard, and Nathaniel Whitham
- 11:30 **QUIT: Sobriety Mobile Application;** Dawson Butts, Collin Jensen, Isaiah Kiefer, and Colton Roach
- 12:00 **The MP3 Smart Shuffler;** William Frost, Mariah Moore, Letitia Pinter, and Eric Van Wig

EERB 251

- 8:00 **Temperature Monitored Drug Delivery Device;** Sarah Swanson
- 8:30 **Sustainable Energy Greenhouse;** Rebecca Miller, Nick Nelson, and James Way
- 9:00 **Electrical Pressure Gauge;** Marcus Garcia
- 9:30 **9H Lithium-Ion Battery Recycling;** Brenden Lapp, Samara Ordahl, and Landon Walker
- 10:15 **Automated Solar Panel Cleaner;** David Freeman
- 10:45 **Buddy Bot;** Camryn Lanctot
- 11:15 **Space Throttle and Flight Stick;** Benjamin Skelley
- 11:45 **Mini Fertigation System Based on Peristaltic pump;** Siang Xue

EERB 255

- 8:00 **Detecting Cars in Bad Weather Using Thermal Imagery;** Oreoluwa Babatunde, Christian Bitzas, and Brady Wagstaff
- 8:30 **Athlete Movement Tracker;** Corban Boyd, Michael Gehred, and Trevor Williams
- 9:00 **Automatic Coffee Roaster;** Trevor Evenson and Matthew Springsteen
- 9:30 **AuraLock: Facial Recognition Door Lock;** Dillon McCardell and Erin Stanfill
- 10:15 **Guitar Buddy;** William Gorman
- 10:45 **Toad Data Collection Device;** Cody Hume
- 11:15 **Augmented Reality for Umpires;** Samuel Bayles
- 11:45 **9H solar ranch;** Tanner Abbott, Bryce Reher, and Nico Shober