

Annelise Elaine Adolph, Health and Exercise Science major with Sports Medicine concentration

Thesis title: *Perception and Exercise: Can your Mentality Affect Your Body?*

Thesis adviser: Brian Butki, Health and Exercise Science

Katherine Agster, Biomedical Sciences major

Thesis title: *Obsessive Compulsive Disorder: A Look into Current Physiological and Psychological Knowledge and Treatment Options*

Thesis adviser: Leslie Stone-Roy, Biomedical Sciences

Jacob Alfieri, Biomedical Engineering and Electrical Engineering major with Mathematics minor

Thesis title: *Smart Well-Plate*

Thesis adviser: Thomas Chen, Electrical and Computer Engineering

Sarah Alfieri, Biochemistry major with General Biochemistry concentration and Biomedical Sciences minor

Thesis title: *Yeast Chromatin Remodeler SWRI Interactions With the Transcription Factor SPN1 Elucidate Potential Chromatin Remodeling Mechanisms*

Thesis adviser: Laurie Stargell, Biochemistry and Molecular Biology

Zachary Alwais, Business Administration major with Marketing concentration

Thesis title: *Martin Luther: Early, Original, and Consequential Truth Seeker*

Thesis adviser: Pamela Vaughan Knaus, Honors Program

Caroline Amann, Health and Exercise Science major with Health Promotion concentration

Thesis title: *Examining the Impact of Perceived Importance of Different Motivating Factors on Exercise Adherence in Different Age Groups*

Thesis adviser: Brian Butki, Health and Exercise Science

Connor Anderson, Mechanical Engineering major

Thesis title: *Data Acquisition for CSU FSAE Competition Team*

Thesis adviser: Chris Weinberger, Mechanical Engineering

Emma Atwell, Civil Engineering major

Thesis title: *Designing a Dam to Provide Water for Consumptive Need on the Front Range of Colorado*

Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

Victoria Bachtell, Chemistry major with ACS Certified concentration and Global Environmental Sustainability minor

Thesis title: *Determining Stability of Novel Vanadium Schiff-Base Complexes for Exploratory Cancer Research*

Thesis adviser: Debbie Crans, Chemistry

Landon Baird, Business Administration major with Marketing concentration

Thesis title: *Rebranding Saint Frances Cabrini for the 21st Century: Littleton Youth Encounter Christ and His Community through Technology and Art*

Thesis adviser: Pamela Vaughan Knaus, Honors Program

Austin Banks, Chemical and Biological Engineering major and Mathematics minor

Thesis title: *Technoeconomic Assessment and Life Cycle Analysis of Algae Based Biofuels: Algae Cultivation to Lipid-Derived Biodiesel Production*

Thesis adviser: John Sheehan, Chemical and Biological Engineering

Nicholas Banks, Business Administration major with Finance concentration and Market Research and Data Analytics certificate

Thesis title: *Market Analysis for Implementation of New Digital Bank*

Thesis adviser: Burton Deines, Management

Gabriel Baranovsky, Mechanical Engineering major

Thesis title: *5-axis Robotic Additive Manufacturing*

Thesis adviser: David Prawel, Mechanical Engineering

Joshua Lane Baumgardner, Horticulture major with Horticulture Business Management concentration and Business Administration minor

Thesis title: *Nutrient and Water Requirements of Cannabis sativa 'Cherry Wine' During the Vegetative Phase*

Thesis adviser: Bill Bauerle, Horticulture and Landscape Architecture

Chloe Ashley Beardsley, Chemistry major with ACS Certified concentration and Spanish minor

Thesis title: *Chem-O-Meters for Kids: Development of a Culturally Relevant Education Kit to Teach Students about Paper-Based Microfluidics*

Thesis adviser: Chuck Henry, Chemistry

Olivia Beck, Mathematics major with Applied Mathematics concentration and Statistics major with General Statistics concentration

Thesis title: *Evaluating the Effects of the Safe Ride Anywhere Policy in Colorado State University's RamRide Safe Ride Program*

Thesis adviser: Ander Wilson, Statistics

Emilyn Bell, International Studies major with Latin American Studies concentration and Languages, Literatures, and Cultures major with Spanish concentration

Thesis title: *U.S Detention Center Role and Function: Current Migration Issues*

Thesis adviser: Andrea Purdy, Languages, Literatures and Cultures

J. Elizabeth Bennett, Journalism and Media Communications major and Ecosystem Sciences and Sustainability major

Thesis title: *Exploring Health, Wellness, and Diet through Chronic Illness*

Thesis adviser: Michael Humphrey, Journalism and Media Communication

Allie Benz, Psychology major with General Psychology concentration and Political Science minor

Thesis title: *The Interaction Effects of Neuroticism and Conscientiousness on Predicting Stress Response*

Thesis adviser: Gloria Luong, Human Development and Family Studies

Emily Bergum, Biomedical Engineering and Mechanical Engineering major

Thesis title: *Quantifying Comfort - Quatro Socket Analysis Senior Design Team*

Thesis adviser: Kirk McGilvray, Mechanical Engineering

Kara Billington, Biomedical Sciences major, Economics major and Microbiology minor

Thesis title: *Feline Immunodeficiency Virus Incidence Rates and Standards of Care Worldwide*

Thesis adviser: Susan VandeWoude, Microbiology, Immunology and Pathology

Allison Blue, Biological Science major with Biological Science concentration and Anthropology minor

Thesis title: *Chronic Disease of Immigrants in the United States: A Review of Healthcare and Surveillance Systems*

Thesis adviser: Maggie Clark, Environmental and Radiological Health Sciences

Mykaila Blumhardt, Biomedical Sciences major and Chemistry minor

Thesis title: *Analysis of Impact of Influenza Infection During Pregnancy on Maternal and Fetal Health*

Thesis adviser: Gerrit Bouma, Biomedical Sciences

Evan Bode, Communications Studies major and English, General Sociology and Film Studies minors

Thesis title: *Completion of a Feature Length Motion Picture Screenplay*

Thesis adviser: Scott Diffrient, Communication Studies

Krista Botkin, Fish, Wildlife and Conservation Biology major with Conservation Biology concentration

Thesis title: *Something to Crow About: How Public Perceptions Influence Management Options in Human Conflicts with Corvids*

Thesis adviser: Ann Randall, Fish, Wildlife and Conservation Biology

Casey Boyd, Chemistry major with ASC Certified concentration

Thesis title: *Measurement of Halogen Structure and Dynamics in Metal Halide Perovskites Through Nuclear Quadrupole Resonance Spectroscopy*

Thesis adviser: Joseph DiVerdi, Chemistry

Mackenzie Brigham, Business Administration major with Finance concentration and Apparel and Merchandising major with Merchandising concentration

Thesis title: *Collaboration Within the Fashion Industry: lululemon x Vail Resorts*

Thesis adviser: Ruoh-Nan Yan, Design and Merchandising

Madeline Brill, Biological Science major with Biological Science concentration and Business Administration minor

Thesis title: *Navigating the College Transition With Type I Diabetes*

Thesis adviser: Alan Schenkel, Microbiology, Immunology and Pathology

Cassandra Brown, Fish, Wildlife and Conservation Biology major with Conservation Biology concentration and Spatial Information Management minor

Thesis title: *Direct and Indirect Effects of Herbivory by *Acheta domesticus* on *Poa Pratensis* in Light Polluted Environments*

Thesis adviser: Brett Seymoure, Fish, Wildlife and Conservation Biology

Brooke Buchan, Journalism and Media Communications major and Business Administration and Spanish minors

Thesis title: *Looking Through Green-Tinted Glasses. A Comparison of the Effectiveness of Photography Activism and the Impact of the Tool That Enables It*

Thesis adviser: Steven Weiss, Journalism and Media Communication

Nolan Bunting, Zoology major

Thesis title: *Molecular Response of the Eyestalk Ablated Blackback Land Crab, *Gecarcinus lateralis*, Under Conditions of Acute Thermal Stress*

Thesis adviser: Donald Mykles, Honors Program

Maria Byers-Alexander, Political Science major, Ethnic Studies major and Legal Studies interdisciplinary minor

Thesis title: *Post-Dictatorship Environmental Policy in Chile and the Impacts on its Indigenous Population*

Thesis adviser: Ernesto Sagas, Ethnic Studies

Venus Cariaso, Mathematics major with Mathematics Education concentration

Thesis title: *An Investigation into the Bullying Epidemic: Exploring the Impact of Bullying Experiences on Colorado State University's Honors Community*

Thesis adviser: Christina Berg, CSU Health Network

Kailey Carlson, Fish, Wildlife and Conservation Biology major with Wildlife Biology concentration and Philosophy minor

Thesis title: *Using Spoor Count Data to Estimate Lion Prey Species Abundance in Amboseli Region, Kenya*

Thesis adviser: Kevin Jablonski, Forest & Rangeland Stewardship

Brenna Carter, Psychology major with Clinical/Counseling Psychology concentration, International Studies major with European Studies concentration and Russian Studies, Economics, and Political Science minors

Thesis title: *Resilience in Ballet Dancers: A Qualitative Study*

Thesis adviser: Alyssa Gibbons, Psychology

Ben Cartwright, Business Administration major with Finance concentration

Thesis title: *The Effects of Tariffs on the Automobile Industry*

Thesis adviser: Scott Roark, Finance and Real Estate

Si Chen, Business Administration major with Accounting and Finance concentrations

Thesis title: *Stock Valuation: Is Netflix a Good Investment*

Thesis adviser: Ellen Burnes, Finance and Real Estate

Taylor Christmann-Fishman, Human Development and Family Studies major with Pre-Health Professions concentration

Thesis title: *Advance Directives: The Talk That No One Wants to Have*

Thesis adviser: Jennifer Aberle, Human Development and Family Studies

Madison Ciecioraka, Civil Engineering major

Thesis title: *A Micro-Mobility Study: Why It Isn't Working and How It Can Be Improved*

Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

Natalya Clasen, Ethnic Studies major and Women's and Gender Studies major

Thesis title: *Border Camps as Racial Projects: An Archaeological Study in Whiteness*

Thesis adviser: Caridad Souza, College of Liberal Arts

Isabelle Clement, Apparel and Merchandising major with Product Development concentration and Business Administration minor

Thesis title: *Investigating Consumer Perceptions and Supply Chain Disruptions: Case of Fashion Rental Subscriptions*

Thesis adviser: Sonali Diddi, Design and Merchandising

Sarah Cleveland, Nutrition and Food Science major with Nutrition Sciences concentration

Thesis title: *Examining the Implications of Plant Based Meat Products of Impossible Foods and Beyond Meat*

Thesis adviser: Kimberly Cox-York, Food Science and Human Nutrition

Connor Craddock, Mechanical Engineering major

Thesis title: *The Future of Using an Agricultural Remote Livestock Monitoring System*

Thesis adviser: Wade Troxell, Mechanical Engineering

Rachel Croissant, Human Development and Family Studies major with Pre-Health Professions concentration

Thesis title: *Prevalence of Body Dissatisfaction and Disordered Eating Patterns in Teens at Risk for Adult Obesity: Associations Among Dysfunctional Eating Patterns, Relationship Functioning, and Psychological Well-Being*

Thesis adviser: Lauren Shomaker, Human Development and Family Studies

Morgan Crump, Fish, Wildlife and Conservation Biology major with Conservation Biology concentration and Environmental Affairs minor

Thesis title: *Behavioral and Physiological Essay of Acheta domesticus Herbivory on Poa parentis Under Artificial Light Pollution*

Thesis adviser: Brett Seymoure, Fish, Wildlife and Conservation Biology

Annaclaire Crumpton, Political Science major with Global Politics and Policy concentration and Journalism and Media Communication major

Thesis title: *Soil and Gold: How Government Funds Impact the American and European Dinner Plate*

Thesis adviser: Daniela Castillo, Journalism and Media Communication

Michelle Cruse, Biological Science major with Biological Science concentration

Thesis title: *An Informal Manual: A Framework for the Physician Assistant*

Thesis adviser: Pamela Vaughan Knaus, Honors Program

Desarae Cruz, Art major with Electronic Art and Photo Image Making concentrations and Computer Science minor

Thesis title: *Home - An Autobiographical Exhibition of Photography and Electronic Art*

Thesis adviser: Gary Huibregtse, Art and Art History

Makayla Dahl, Business Administration major with Marketing concentration, Entrepreneurship and Market Research and Data Analytics certificates and Entrepreneurship and Innovation minor

Thesis title: *Shop for Social Benefit: An Ecommerce Business Model to Maximize Social Impact*

Thesis adviser: Dawn DeTienne, Management

Kendal Erin Davis, Zoology major and Chemistry minor

Thesis title: *Impacts of Lead-Based Ammunition on Birds of Prey in Colorado: Perspectives of Hunters and Raptor Rehabilitators*

Thesis adviser: Liba Goldstein, Fish, Wildlife and Conservation Biology

Elizabeth De Laurell, Health and Exercise Science major with Sports Medicine concentration

Thesis title: *Comparison of Electrolyte Only Versus Electrolyte-Carbohydrate Solutions During Ingress Wildland Fire Hike*

Thesis adviser: Jennifer Richards, Health and Exercise Science

Carlos Delgado, Business Administration major with Finance concentration, International Business certificate and French and Statistics minors

Thesis title: *Pacing of Films Across Time*

Thesis adviser: Ben Prytherch, Statistics

James DeMoss, Biological Science with Biological Science concentration, and Languages, Literature and Cultures major with Spanish concentration and Spanish for Animal Health Care certificate and Latin American and Caribbean studies minor

Thesis title: *The Importance of Speaking Another Language in the Field of Veterinary Medicine*

Thesis adviser: Maura Velazquez-Castillo, Languages, Literatures and Cultures

Malia Desmarais, Health and Exercise Science major

Thesis title: *Changes in Balance, Strength and Sensory Function After a Rehabilitative Yoga Intervention in Neurologic Patients*

Thesis adviser: Brian Tracy, Health and Exercise Science

Madison Driscoll, Biological Science major with Biological Science concentration and Biomedical Sciences minor

Thesis title: *What's In My Body? Interactive Anatomy Book for Children.*

Thesis adviser: Tod Clapp, Biomedical Sciences

Blake Charles Duff, Mechanical Engineering major

Thesis title: *Plasma Diagnostic Measurements of a High-Voltage Laser Triggered Switch by Optical Emission Spectroscopy*

Thesis adviser: Azer Yalin, Mechanical Engineering

Kaley Egan, Fish, Wildlife and Conservation Biology major with Wildlife Biology concentration and Philosophy minor

Thesis title: *Understanding the Effects of Urbanization and Artificial Light at Night on the Presence of Coyotes (*Canis latrans*) and Red Fox (*Vulpes vulpes*) in Fort Collins, Colorado*

Thesis adviser: Brett Seymoure, Fish, Wildlife and Conservation Biology

Paul Christian Eide, Nutrition and Food Science major with Nutrition Sciences concentration

Thesis title: *Diet, Gut Microbiota, and the Gut-Brain Axis*

Thesis adviser: Katriana Popichak, Microbiology, Immunology and Pathology

Lillian Esterl-Byrne, Equine Science major and Agricultural Business minor

Thesis title: *CSU Right Horse Program Social Media Marketing Campaign and Adoption Showcase*

Thesis adviser: Kristen Martell, Animal Sciences

Macy Falk, Neuroscience major with Cell and Molecular Neuroscience concentration

Thesis title: *Effectiveness of Antisense Oligonucleotides on the Knockdown of the Mu Opioid Receptor*

Thesis adviser: Shane Hentges, Biomedical Sciences

Austin Fearn, Mathematics major with Applied Mathematics concentration and Economic major and Philosophy minor

Thesis title: *Modeling Vapor-to-Particle Ammonium Chloride Band Formation*

Thesis adviser: Patrick Shipman, Mathematics

Roman Fedorak, Psychology major with Clinical/Counseling Psychology concentration

Thesis title: *Safeguarding the Future: A Preventative Effort Focused on Self Care in Children*

Thesis adviser: Lee Rosen, Psychology

Ryan Fenske, Civil Engineering major

Thesis title: *Ram Autonomy and Drone Research Center Development*

Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

Reagan E. Fitzke, Psychology major with Clinical/Counseling Psychology concentration and Applied Statistics minor

Thesis title: *Individual Factors Influencing Cannabis Non-Use Motives in American Indian Youth*

Thesis adviser: Mark Prince, Psychology

Kinsey Flanders, Mechanical Engineering major and Business Administration minor

Thesis title: *Ramskeller Brewhouse Automation Design*

Thesis adviser: Anthony Maciejewski, Electrical and Computer Engineering

Paige Floyd, Mechanical Engineering major

Thesis title: *Swing for the Stars*

Thesis adviser: Sam Bechara, Mechanical Engineering

Mason Force, Applied Computing Technology major

Thesis title: *Quantifying the Unquantifiable: The Social Challenges of an Increased Utilization of Artificial Intelligence*

Thesis adviser: Anne Marie Merline, Honors Program

Benjamin Fox, Electrical Engineering major with Electrical Engineering concentration

Thesis title: *Wireless Signal Characterization of Indoor Environments*

Thesis adviser: Branislav Notaros, Electrical and Computer Engineering

Krista Frable, Art major with Graphic Design concentration and Business Administration major with Marketing concentration

Thesis title: *Sips Coffee Official Business Plan*

Thesis adviser: Jon Firooz, Marketing

Lauren Fredeen, Human Development and Family Studies major with Pre-Health Professions concentration and Biomedical Sciences minor

Thesis title: *The Benefits of Adaptive Behavior of Employment and Postsecondary Education Among Individuals with Down Syndrome*

Thesis adviser: Deborah Fidler, Human Development and Family Studies

Hannah Gambee, Music major with Music Education concentration

Thesis title: *Pedagogical Practice at Work: Action Research in Music Education*

Thesis adviser: Seth Pendergast, School of Music, Theatre and Dance

Yvette Garcia,

Thesis title: *How the Affordable Care Act Changed the United States Healthcare System*

Thesis adviser: James Stekelberg, Accounting

Adrienne Gaughan, Biomedical Sciences major and Spanish minor

Thesis title: *Addressing Vaccine Education and the Rise of the Anti-Vaccination Movement*

Thesis adviser: Ryan Maresh, Biomedical Sciences

Nathanael Gertner, Business Administration major with Finance and Accounting concentrations

Thesis title: *Valuation and Financial Statement Analysis for Anheuser-Busch InBev (BUD)*

Thesis adviser: Hong Miao, Finance and Real Estate

- Dylan Giardina**, Biomedical Engineering and Mechanical Engineering major
Thesis title: *Monitoring Ozone and Associated Health Outcomes in Colorado Front Range*
Thesis adviser: Shantanu Jathar, Mechanical Engineering
- Leah Gibson**, Mathematics major with General Mathematics concentration and Spanish minor
Thesis title: *Listening to the Horse: Modifying Horsemanship Training Approaches to Effectively Train Rescue Horses*
Thesis adviser: Melissa Edwards, Institute for Learning & Teaching
- Elizabeth Giguere**, Hospitality Management major
Thesis title: *Understanding the Zoning Regulations of Short-Term Rentals in the Fort Collins Area*
Thesis adviser: Eric Milholland, Food Science and Human Nutrition
- Catherine Goolsby**, Business Administration major with Accounting and Finance concentrations
Thesis title: *Big Data in the Audit Industry*
Thesis adviser: Eric Rapley, Accounting
- Tyler Greear**, English major with Creative Writing concentration, History major with General History concentration and Film Studies minor
Thesis title: *Feature Film Screenplay*
Thesis adviser: Scott Diffrient, Communication Studies
- Thomas Griffin**, Environmental Health major
Thesis title: *Searching for the Lurking Menace: Analyzing the Resistome of a Colorado Dairy Farm*
Thesis adviser: Joshua Schaeffer, Environmental and Radiological Health Sciences
- Hannah Hacker**, Hospitality Management major and Business Administration minor
Thesis title: *Coming Together During Corona: Planning a Student Event Among a Global Pandemic*
Thesis adviser: Eric Milholland, Food Science and Human Nutrition
- Olivia Hahn**, Biomedical Engineering and Mechanical Engineering major and Mathematics minor
Thesis title: *Quatro Socket Analysis Senior Design Project*
Thesis adviser: Kirk McGilvray, Mechanical Engineering
- Zachary Haigh**, Biomedical Engineering and Chemical and Biological Engineering major with Mathematics minor
Thesis title: *Integrating Motion Capture Software and Virtual Reality for Bayesian Inference Protocols*
Thesis adviser: Brett Fling, Health and Exercise Science
- Allyson Hamlyn**, Interior Architecture and Design major and International Development minor
Thesis title: *Exploring the Relationship Between Historic Preservation/Adaption and Sustainable Design Trends: How Buildings Can Be "Green" Without Sacrificing Historical Authenticity*
Thesis adviser: Stephanie Clemons, Design and Merchandising
- Nicole Hardesty**, Political Science major and Legal Studies minor
Thesis title: *Comparative Health Care Systems*
Thesis adviser: Gamze Cavdar, Political Science

- Courtney Hardy**, Biomedical Sciences major and Microbiology minor
Thesis title: *The Art of Prions*
Thesis adviser: Mark Zabel, Microbiology, Immunology and Pathology
- Allison Hare**, Neuroscience major with Behavioral and Cognitive Neuroscience concentration and Biomedical Sciences minor
Thesis title: *Take It One Step at a Time - The Nervous System's Bayesian Approach to Sensory Uncertainty*
Thesis adviser: Brett Fling, Health and Exercise Science
- Kellen Harp**, Business Administration major with Accounting and Finance concentrations and International Business certificate
Thesis title: *Are CLOs the New CDOs? A Look Into Whether Collateralized Loan Obligations Could Cause the Next Financial Crisis*
Thesis adviser: Sean Flynn Jr, Finance and Real Estate
- Haleakala Harroun**, Biological Science major with Biological Science concentration
Thesis title: *Knocking Out and Rescuing the ATP3 Gene in Arabidopsis Thaliana*
Thesis adviser: Dan Sloan, Biology
- Charles Harvey**, Biomedical Sciences major
Thesis title: *Interpreting How Fungiform Papillae Size and Shape Correlates with Tongue Sensitivity Using Electrotactile Stimulation*
Thesis adviser: Leslie Stone-Roy, Biomedical Sciences
- Jenna Hattendorf**, Biomedical Sciences major
Thesis title: *The Use of PCR for Antigen Receptor Rearrangement (PARR) to Distinguish and Diagnose Feline GI Lymphoma from Inflammatory Bowel Disease*
Thesis adviser: Anne Avery, Microbiology, Immunology and Pathology
- Elena Haverluk**, Anthropology major
Thesis title: *Art as Outreach: A Snapshot of Ancient Native American Lifeways in Colorado*
Thesis adviser: Jason La Belle, Anthropology and Geography
- Hannah Heath**, English major with Creative Writing concentration and Global Environmental Sustainability minor
Thesis title: *Exploring Different Perspectives Through Poetry*
Thesis adviser: Andrea Purdy, Languages, Literatures and Cultures
- Devan Heinrichs**, Biomedical Sciences major and Chemistry minor
Thesis title: *A Review on Maternal Mortality*
Thesis adviser: Gerrit Bouma, Biomedical Sciences
- Caitlyn Helwig**, Health and Exercise Science major with Sports Medicine concentration
Thesis title: *The Effect of Wear on Crumb Rubber's Vertical Mechanical Properties in Artificial Turf Fields*
Thesis adviser: Raoul Reiser, Health and Exercise Science
- Brielle Hermstedt**, Biomedical Sciences major
Thesis title: *Allocation Trade-offs Resulting From an Immune Challenge in Individuals of Different Metabolic Rates*
Thesis adviser: Dhruva Naug, Biology
- Jenna Marie Elizabeth Herzog**, Biochemistry major
Thesis title: *Illustrating the Impact of DNA Methylation on Breast Cancer Development*
Thesis adviser: Jeffrey Hansen, Biochemistry and Molecular Biology

Gabrielle Jordan Hess, Health and Exercise Science major with Sports Medicine concentration
Thesis title: *An Analysis of the Dynamic Vertical Response and Stability Characteristics of the Lower Limb During the Drop Landing and Bilateral Hops Movement on Two Different Turf Surfaces*

Thesis adviser: Raoul Reiser, Health and Exercise Science

Carter Hill, Political Science major and Communication Studies major

Thesis title: *"Leading From Within: How Driving Performance Excellence Creates World Class Municipal Services"*

Thesis adviser: Ryan Scott, Political Science

Hannah Hinckley, Nutrition and Food Science major with Nutrition Sciences concentration

Thesis title: *Nonprofit Restaurants: A Sustainable Solution to Reducing Food Insecurity and Increasing Longevity*

Thesis adviser: Leslie Cunningham-Sabo, Food Science and Human Nutrition

Kyle Hobbs, Computer Science major with Computer Science concentration and Mathematics minor

Thesis title: *Choose Your Own Adventure App*

Thesis adviser: Laura Moreno Cubillos, Computer Science

Natalie Hodgman, Ecosystem Science and Sustainability major and Political Science minor

Thesis title: *Where Are the Trees? The Potential Role of Forests in Article Six of the Paris Agreement*

Thesis adviser: Ryan Scott, Political Science

Charles Hogenauer, Civil Engineering major

Thesis title: *Railroad Bridge Replacement*

Thesis adviser: Ryan Bailey, Civil and Environmental Engineering

Grace Hollis, Biochemistry major with American Society for Biochemistry and Molecular Biology concentration

Thesis title: *Caffeine: Friend or Foe? The Chemical and Physiological Effects of Prolonged Caffeine Use on the Brain*

Thesis adviser: Lubna Tahtamouni, Biochemistry and Molecular Biology

Dakota Horendeck, Biochemistry major with General Biochemistry concentration and Political Science minor

Thesis title: *Cell Survival and DNA Damage Track Structure Correlation Using Proton Beam Radiation*

Thesis adviser: Takamitsu Kato, Environmental and Radiological Health Sciences

William Maxwell Hostetter, Chemical and Biological Engineering major and Biomedical Engineering minor

Thesis title: *Effects of Filamin-c Mutations on Heart Flow Characteristics in Zebrafish*

Thesis adviser: Deborah Garrity, Biology

Margaret Howell, Equine Science major

Thesis title: *Multiplex Fluorescent Immunocytochemistry Assay for the Diagnosis of Feline Infectious Peritonitis*

Thesis adviser: Kelly Santangelo, Microbiology, Immunology and Pathology

Mary Howerton, Biomedical Sciences major

Thesis title: *Impact of Chorionic Somatomotropin Deficiency on Expression of Fetal Hepatic Genes Regulating Glucose Metabolism*

Thesis adviser: Russ Anthony, Biomedical Sciences

- Teresa Hubbeling**, Mechanical Engineering major
Thesis title: *Caterpillar RCM Combustion Study*
Thesis adviser: Anthony Marchese, Mechanical Engineering
- Samuel Hudgens**, Ecosystem Science and Sustainability major
Thesis title: *Spatio-Temporal Dynamics of Human-Black Bear Interactions in a Fragmented Landscape*
Thesis adviser: Lise Aubry, Fish, Wildlife and Conservation Biology
- Daniel Hunt**, Mechanical Engineering major
Thesis title: *Baja SAE Senior Design Project Reflection*
Thesis adviser: John Petro, Mechanical Engineering
- Tori Hunter**, Natural Resource Management major and Forestry major with Forest Fire Science concentration and Spatial Information Management minor
Thesis title: *Opportunities for Beaver Dam Analogue Use in Rocky Mountain National Park*
Thesis adviser: Jeremy Sueltenfuss, Forest and Rangeland Stewardship
- Hannah Hurlbut**, International Studies major with Asian Studies concentration, Communication Studies major and Chinese minor
Thesis title: *Podcasts that Push Boundaries: How Feminism in China Prospers through Media Formats*
Thesis adviser: Allison White, Political Science
- Heidi Hutchins**, Political Science major with Global Politics and Policy concentration and French minor
Thesis title: *An Argument for a Runoff Democratic Party Presidential Primary System*
Thesis adviser: Kyle Saunders, Political Science
- Blake Jackson**, Agricultural Business major with Agricultural Economics concentration
Thesis title: *Irrigated Agriculture in Colorado: An Uncertain Future*
Thesis adviser: Marshall Frasier, Agricultural and Resource Economics
- Anna Jacobs**, Biomedical Sciences major and Spanish minor
Thesis title: *Creation of Ovine IUGR Model Using Lentiviral-oCSH CRISPR-Cas9*
Thesis adviser: Russ Anthony, Biomedical Sciences
- Kyra Jensen**, Chemical and Biological Engineering major
Thesis title: *Cell and Nuclear Morphology: Interrelations and Applications*
Thesis adviser: Ashok Prasad, Chemical and Biological Engineering
- Bradley Johnson**, Agricultural Business major with Farm and Ranch Management concentration and Environmental and Natural Resource Economics minor
Thesis title: *Collins Ranch: A Ranch Management Plan (Business Plan Format)*
Thesis adviser: Marshall Frasier, Agricultural and Resource Economics
- Andrew Jones**, Mechanical Engineering major
Thesis title: *Fuel Dithering on Stationary Natural Gas Engines and its Effects on Oxygen Storage in Three Way Catalysts*
Thesis adviser: Daniel Olsen, Mechanical Engineering
- Chelsea Jones**, Nutrition and Food Science major with Dietetics and Nutrition Management concentration
Thesis title: *The Potential Benefits of Mindful Eating on Overall Stress Levels and Wellbeing for the Overloaded College Student*
Thesis adviser: Jeffrey Miller, Food Science and Human Nutrition

Rebekah Kammerer, Biomedical Sciences major

Thesis title: *Interactive Basic Biological Science and HIV Education for Ugandan Students*

Thesis adviser: Jennifer McLean, Microbiology, Immunology and Pathology

Kaleigh Katzer, Biological Science major with Biological Science concentration and Biomedical Sciences minor

Thesis title: *Lipedema and the Potential Role of Estrogen in Abnormal Adipose Tissue Distribution*

Thesis adviser: Michelle Foster, Food Science and Human Nutrition

Erin Kauffman, Soil and Crop Sciences major

Thesis title: *Benefits and Challenges of Rotational Grazing*

Thesis adviser: Joe Brummer, Soil and Crop Sciences

Tanya Kaufman, Art major with Graphic Design and Electronic Art concentrations and English minor

Thesis title: *A Bite of a Illustrative Graphic Novel*

Thesis adviser: John Gravidahl, Art and Art History

Joseph Keaveny, Environmental Engineering major with Ecological Engineering concentration

Thesis title: *Senior Engineering Design: In-Stream Flow Analysis and Diversion Structure Design*

Thesis adviser: Ryan Morrison, Civil and Environmental Engineering

Sheridon Kelly, Chemistry major with ACS Certified concentration and History major with General History concentration

Thesis title: *Choosing War: Why Soldiers and Citizens from the United States, Britain, and France Joined the Second World War*

Thesis adviser: Douglas Sheflin, History

Allyson Kempf, Biological Science major with Biological Science concentration

Thesis title: *A Guide to Teaching Consent and Healthy Relationships in the K-12 Experience*

Thesis adviser: Elizabeth Amoa-Awuah, Women & Gender Advocacy Center

Aleksandra Keyes, Business Administration major with Supply Chain Management concentration and Spanish minor

Thesis title: *Sustainable Packaging and its Effects*

Thesis adviser: Zac Rogers, Management

Conor Kimball, Biological Science major with Biological Science concentration

Thesis title: *An Exploration of Instant Aquaria: Business Plan and Startup Project*

Thesis adviser: Tom Dean, Management

Emily Kopal, Human Development and Family Studies major with Pre-Health Professions concentration

Thesis title: *Sustaining a Vegan and Macro-Friendly Diet*

Thesis adviser: Christopher Gentile, Food Science and Human Nutrition

Anna Kopatich, Human Development and Family Studies major with Pre-Health Professions concentration

Thesis title: *A Review of the Experiences of Females with Autism Spectrum Disorder*

Thesis adviser: Susan Hepburn, Human Development and Family Studies

- Rachel Krieger**, English major with English Education concentration
Thesis title: *The Reading and Writing Classroom*
Thesis adviser: Ricki Ginsberg, English
- Kathryn Krupinsky**, Microbiology major
Thesis title: *Mathematical Modeling for the Biologist*
Thesis adviser: Michael Lyons, Microbiology, Immunology and Pathology
- Dacre Kurth**, Psychology major with Clinical/Counseling concentration and Sociology minor
Thesis title: *The Effect of Mentor Family Attitudes on Mentee Outcomes*
Thesis adviser: Kimberly Henry, Psychology
- Rachel Lana**, Health and Exercise Science major with Sports Medicine concentration
Thesis title: *Muscles of Music: Using EMG To Increase Understanding of Playing An Instrument*
Thesis adviser: Brian Tracy, Health and Exercise Science
- Jaelyn Larson**, Art major with Graphic Design concentration and Business Administration minor
Thesis title: *Mobile Application Branding and Prototype*
Thesis adviser: Carl Burghardt, Communication Studies
- Madeline Lasewicz**, Animal Science major and Agricultural Literacy minor
Thesis title: *Education on Colorado Agricultural Cooperatives*
Thesis adviser: Michael Martin, Agricultural and Resource Economics
- Samantha Lauth**, Anthropology major with Cultural Anthropology concentration and Human Dimensions of Natural Resources major and International Development minor
Thesis title: *Fantastic Beasts and the Women that Work Beside Them: A Critical Look at the Life Histories of Women in South Africa's Conservation Field*
Thesis adviser: David Bunn, Natural Resource Ecology Laboratory
- Cayley Lawhead**, Natural Resource Management major and Political Science minor
Thesis title: *A Policy Analysis of Disposable Bag Fee Ordinances for the City of Fort Collins to Adopt Based on an Analysis of U.S. Municipalities with Disposable Bag Fee Ordinances*
Thesis adviser: Courtney Schultz, Forest & Rangeland Stewardship
- Jerilyn M. Laws**, Health and Exercise Science major with Sports Medicine concentration and Nutrition minor
Thesis title: *Validation of iPod Technology to Assess Postural Sway in a Remote Setting*
Thesis adviser: Brian Tracy, Health and Exercise Science
- Fisher Layden**, Health and Exercise Science major with Sports Medicine concentration
Thesis title: *Effect of Artificial Turf Compliance on Drop Jump Biomechanics*
Thesis adviser: Raoul Reiser, Health and Exercise Science
- Samantha Diana Lewis**, Dance major and Horticulture minor
Thesis title: *Harnessing Inspiration: An Investigation of How Humans Process and Grapple with Awe by Using it to Manifest Creation*
Thesis adviser: Chung-Fu Chang, School of Music, Theatre and Dance
- Monica Lewton**, Languages, Literatures, and Cultures major with Spanish concentration, Mathematics major with General Mathematics concentration and Linguistics and Culture minor
Thesis title: *Traducción de: El Clan de Los Gatos por Wenceslao Fernández Flóre*
Thesis adviser: Silvia Soler Gallego, Languages, Literatures and Cultures

- Meijia Li**, Ecosystem Science and Sustainability major
Thesis title: *Potential of UAS Remote Sensing to Characterize Cover Type Specific Fire Severity*
Thesis adviser: Wade Tinkham, Forest & Rangeland Stewardship
- Wenhao Li**, Computer Science major and Mathematics minor
Thesis title: *Apply Generative Adversarial Networks on Generating Original Cartoon Characters*
Thesis adviser: Chuck Anderson, Computer Science
- Lacy Lichtenhan**, Neuroscience major with Behavioral and Cognitive Neuroscience concentration
Thesis title: *Characteristics of Cannabis Intoxication & Use in College Students*
Thesis adviser: Deana Davalos, Psychology
- Renee Elizabeth Lile**, Ecosystem Science and Sustainability major and History minor
Thesis title: *Colorado Natural Resource Conservation and Outreach: Creating Educational Materials and Models of Engagement for the Colorado Natural Heritage Program to Further Develop and Promote the Conservation of Our State's Natural Resources*
Thesis adviser: John Moore, Ecosystem Science and Sustainability
- Simon Lindley**, Civil Engineering major
Thesis title: *Senior Design: City of Fort Collins Utility Design*
Thesis adviser: Jeffrey Niemann, Civil and Environmental Engineering
- Miah Lingelbach**, Biomedical Sciences major and Spanish minor
Thesis title: *Bilingual Pamphlet for Anatomy Camp*
Thesis adviser: Kenny Ivie Jr, Biomedical Sciences
- Victoria Loeffler**, Equine Science major
Thesis title: *Occupational Therapy in an Equine Environment for People with Autism Spectrum Disorder: A Literature Review*
Thesis adviser: Sharon Butler, Animal Sciences
- Taylor Lofgren**, Social Work major with Prevention and Intervention Science concentration
Thesis title: *Children and Youth with Autism: A Review of Current Research on Indicators and Interventions for Childcare Professionals*
Thesis adviser: Susan Hepburn, Human Development and Family Studies
- Mitchell Stanley London**, Biological Science major with Biological Science concentration and Business Administration minor
Thesis title: *At-Home Counterconditioning: Creating Positive Experiences for You and Your Pets*
Thesis adviser: Jennie Willis, Biology
- Catherine Lopez**, Biomedical Sciences major
Thesis title: *Online Dating Profile Pictures: The Impact of Posing with Cats on Perceived Attractiveness And Masculinity*
Thesis adviser: Lori Kogan, Clinical Sciences
- Zachary Lustig**, Mechanical Engineering major
Thesis title: *Measuring Fine Particle Emissions using Unmanned Aerial Vehicles*
Thesis adviser: Shantanu Jathar, Mechanical Engineering

- Riley Lynch**, Watershed Science major and Environmental Affairs minor
Thesis title: *River Water Quality Injustice in the Contiguous United States*
Thesis adviser: Matthew Ross, Ecosystem Science and Sustainability
- Sarah A. Maclean**, Biomedical Engineering and Electrical Engineering major
Thesis title: *Optical Neurolink for a High Data Rate Brain-Computer Interface*
Thesis adviser: Kevin Lear, Electrical and Computer Engineering
- Lilia Maeda**, Biomedical Sciences major and Microbiology minor
Thesis title: *The Role of the H2A Acidic Patch and H4 Tail Interaction in Chromatin Accessibility*
Thesis adviser: Jeffrey Hansen, Biochemistry and Molecular Biology
- Louisa Markow**, Fish, Wildlife and Conservation Biology major with Wildlife Biology concentration and Mathematics minor
Thesis title: *Automating Species Recognition in Acoustic Recordings*
Thesis adviser: George Wittemyer, Fish, Wildlife and Conservation Biology
- Zachary Marquardt**, Computer Science major and Computational Mathematics concentration and Mathematics major with Computer Science concentration
Thesis title: *Storytelling in Incremental Games*
Thesis adviser: Russell Wakefield, Computer Science
- Jordan Marsh**, Animal Science major and Biomedical Sciences minor
Thesis title: *Development of Animal Welfare-Oriented Standards for an "American Wool Assurance" (AWA) program for the American Sheep Industry (ASI) Association*
Thesis adviser: Jason Ahola, Animal Sciences
- Isabella Martinez**, Communications Studies major and Creative Writing minor
Thesis title: *Blood is Thicker than Water: Representations and Effects of Sister Relationships in Horror Cinema*
Thesis adviser: Scott Diffrient, Communication Studies
- Thomas Mayer**, Civil Engineering major
Thesis title: *ASCE Concrete Canoe*
Thesis adviser: Christopher Thornton, Civil and Environmental Engineering
- Tatum McCallum**, Art major with Graphic Design concentration
Thesis title: *The Brand X Challenge: Experience Design as a Team*
Thesis adviser: Jason Frazier, Art and Art History
- William McCormick**, Biomedical Engineering and Mechanical Engineering major
Thesis title: *AlloSource Biomedical Engineering Senior Design Capstone*
Thesis adviser: Matt Kipper, Chemical and Biological Engineering
- Mercedes McCue**, Animal Science major and Agricultural Literacy minor
Thesis title: *Focal Points of Quieted Experiences*
Thesis adviser: Michael Martin, Agricultural and Resource Economics
- Kayla Mccurry**, Sociology major with Criminology and Criminal Justice concentration and Political Science major with U.S. Government, Law and Policy concentration and Legal Studies minor
Thesis title: *Humans of Fort Collins: Defeating the Single Story of Homelessness*
Thesis adviser: Anne Marie Merline, Honors Program

Cassandra McDonald, Equine Science major

Thesis title: *The Effect of Dairy Cow Longevity on Milk's Environmental Footprints and Economic Potential*

Thesis adviser: Jasmine Dillon, Animal Sciences

David McDonald, Neuroscience major with Behavioral and Cognitive Neuroscience concentration

Thesis title: Investigating Patient Reported Satisfaction and its Correlation to Clinical Outcome Within U.S Hospitals

Thesis adviser: James Graham, Biomedical Sciences

Sara McMahan, Civil Engineering major and Global Environmental Sustainability and Sustainable Water interdisciplinary minors

Thesis title: *Redesign of Hickory Street Water Main and Stormwater Inlets*

Thesis adviser: Jeffrey Niemann, Civil and Environmental Engineering

Brenna McWhorter, Art major with Art History concentration and Business Administration and Italian Studies minors

Thesis title: *Piety and Reform: The Visual Transmission of Savonarolan Doctrine by Artists of the Italian Renaissance*

Thesis adviser: Catherine Dicesare, Art and Art History

Amanda Medearis, Human Development and Family Studies major with Pre-Health Professions concentration

Thesis title: *Unwavering Worth: A Lesson for Young Girls*

Thesis adviser: Karen Rattenborg, Human Development and Family Studies

Amanda Merkley, Computer Engineering major with General Mathematics concentration and Mathematics major

Thesis title: *A Deep Learning Model on Smartphones for Automatic Grading*

Thesis adviser: Ryan Kim, Electrical and Computer Engineering

Peter Meyer, Chemical and Biological Engineering major

Thesis title: *Unsaturated Diacids for the Synthesis of Bio-Enhanced Nylon 6,6*

Thesis adviser: Travis Bailey, Chemical and Biological Engineering

Mason Mill, Mechanical Engineering major and History minor

Thesis title: *Spaceport America Cup Rocket Team*

Thesis adviser: Anthony Marchese, Mechanical Engineering

Adrianna Miller, Mathematics major with Mathematics Education concentration

Thesis title: *Combatting Math Anxiety Through Growth Mindset and Metacognition*

Thesis adviser: Kelly Chappell, Mathematics

Aaron Moore, Business Administration with Accounting concentration

Thesis title: *Writing Fiction: Technique & Application*

Thesis adviser: Terrie Sandelin, English

Grace Morrow, Neuroscience major with Behavioral and Cognitive Neuroscience concentration and Biomedical Sciences minor

Thesis title: *Humans and Canids: Clinical Comparative Anatomy of Cranial Nerves of the Eye and Face*

Thesis adviser: Carolyn Meyer, Biomedical Sciences

Vladimir Munoz, Business Administration major with Finance concentration and Economics minor

Thesis title: *Rise of the Index Fund: Passive Investing's Effect on Market Valuations*

Thesis adviser: Frank Smith II, Finance and Real Estate

Melissa Ann Murphy, Business Administration major with Accounting and Finance concentrations

Thesis title: *Every Word Has Value: An Examination of Natural Language Processing and Social Media's Impact Upon Financial Statements*

Thesis adviser: Frank Smith II, Finance and Real Estate

Miranda Nabkel, Psychology major with Industrial/Organization Psychology concentration and Business Administration minor

Thesis title: *The Effects of Paid Parental Leave on Job Satisfaction, Organizational Commitment, and Turnover Intentions in Pregnant, Working Women*

Thesis adviser: Gwen Fisher, Psychology

Lyndsey Nold, Biomedical Engineering and Mechanical Engineering major

Thesis title: *Magnetic Tweezers: An Analytical Device for Disease Prevention*

Thesis adviser: Dave Bark, Mechanical Engineering

Theresa O'Donnell- Sloan, Civil Engineering major and Global Environmental Sustainability and minor

Thesis title: *Shambhala Mountain Center Energy Master Plan*

Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

Hannah Olson, Health and Exercise Science major with Sports Medicine concentration and Chemistry minor

Thesis title: *The Dark Side of Fitspiration: Investigating Social Media and Exercise Addiction*

Thesis adviser: Brian Butki, Health and Exercise Science

Jennifer Olson, International Studies major with Middle Eastern and North African Studies concentration, Political Science major with Global Politics and Policy concentration and International Development and Arabic Studies minors

Thesis title: *An Explanatory Research Paper on the Impacts of the Syrian Refugee Crisis on Jordan's Economy and Resources*

Thesis adviser: Gamze Cavdar, Political Science

Michelle Ondrejka, Civil Engineering major

Thesis title: *CDOT Structure G-21-A Hydraulic Model and Replacement Design*

Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

Brianna Osborn, Animal Science major

Thesis title: *TBD*

Thesis adviser: Lily Edwards-Callaway, Animal Sciences

Laura Osborn, Biomedical Sciences major

Thesis title: *Consequences of Blue Light on the Eye: a Review of the Literature*

Thesis adviser: Ryan Maresh, Biomedical Sciences

Santanna J. Pacheco, Business Administration major with a concentration in Corporate Finance & Investment Analysis

Thesis title: *Analysis and Performance of Sustainable Investments*

Thesis adviser: John Elder, Finance and Real Estate

Katie Paradis, Mechanical Engineering major and Technical and Science Communication minor

Thesis title: *Baja SAE Senior Design: An Exploration of Off-Road Suspension Design*

Thesis adviser: John Petro, Mechanical Engineering

Eric Paricio, Music major and Mathematics and Physics minors

Thesis title: *Missa Fidem: Composing a Latin Mass with Varied Compositional Practices*

Thesis adviser: Pamela Vaughan Knaus, Honors Program

Scott Parmelee, Mechanical Engineering

Thesis title: *Bioaerosol Detection with POPS*

Thesis adviser: Shantanu Jathar, Mechanical Engineering

Sydney Paul, Journalism and Media Communication major and English and Sports Management minors

Thesis title: *The Six Pack Attack*

Thesis adviser: Michael Humphrey, Journalism and Media Communication

Nicholas Penrose, Mechanical Engineering

Thesis title: *FSAE Intake Manifold Design*

Thesis adviser: Chris Weinberger, Mechanical Engineering

Claudia Perez, Communication Studies major and Legal Studies and Ethnic Studies minors

Thesis title: *The Role Communication Plays in Ending the Cycle of Harm: Why Understanding Multiculturalism is Essential to Criminal Justice Reform*

Thesis adviser: Tom Cavanagh, Ethnic Studies

Hannah Peters, Electrical Engineering major with Electrical Engineering concentration

Thesis title: *Ramskellar Brewery Automation and Design*

Thesis adviser: Anthony Maciejewski, Electrical and Computer Engineering

Erin Peterson, Psychology major with Psychology concentration and Philosophy minor

Thesis title: *A Goddamn Bitch of an Unsatisfactory Situation: The Adverse Effect of Poor Queer Representation on Adolescent Mental Health*

Thesis adviser: Sharon Grindle, English

Kelly Peterson, English major with English Education concentration

Thesis title: *Using Graphic Design to Leverage Civic Engagement in a Middle School English Classroom*

Thesis adviser: Ricki Ginsberg, English

Jamie Philp, Microbiology major and Chinese minor

Thesis title: *Using Flow Cytometry and Immunohistochemistry for the Differential Diagnosis of Mycobacterium abscessus and Mycobacterium avium*

Thesis adviser: Mercedes Gonzalez-Juarrero, Microbiology, Immunology and Pathology

Raven Pinto, Political Science major and Legal Studies minor

Thesis title: *Ìya!": Assessing Readiness for Indigenous Food Gardens: Perceptions of Indigenous Food Culture by the Urban Navajo Community*

Thesis adviser: Roe Bubar, Ethnic Studies

Bennett Platt, Mechanical Engineering major and Global Environmental Sustainability and Sustainable Energy minors

Thesis title: *Solar Hydronic Heating System*

Thesis adviser: Bonnie Roberts, Mechanical Engineering

Scott Powers, Chemical and Biological Engineering major and Chemistry minor
Thesis title: *Fort Collins Food Waste Processing*
Thesis adviser: John Sheehan, Chemical and Biological Engineering

Alyssa Proulx, Journalism and Media Communication major
Thesis title: *Media Literacy and Body Image in College-age Women*
Thesis adviser: Michael Humphrey, Journalism and Media Communication

Anthony Puga, Mechanical Engineering major
Thesis title: *Trace measurements of Atmospheric Gases*
Thesis adviser: Azer Yalin, Mechanical Engineering

Analia Quirk, Biomedical Engineering and Chemical and Biological Engineering major
Thesis title: *Automated Device and Streamlined Process for Efficient Periosteum Removal*
Thesis adviser: Ashok Prasad, Chemical and Biological Engineering

Brandon Randall, Journalism and Media Communication major and Business Administration minor
Thesis title: *Social Media Content Portfolio*
Thesis adviser: Daniela Castillo, Journalism and Media Communication

Sarah Raskin, Natural Resource Tourism major with Natural Resource Tourism concentration and Spanish minor
Thesis title: *United States' Marketing Plan for Fairbnb*
Thesis adviser: Alan Bright, Human Dimensions of Natural Resources

Hope Anne Raymond, Soil and Crop Sciences major and Organic Agriculture minor
Thesis title: *Microbial Communities Associated with Drippy Blight in Colorado and Drippy Nut in California*
Thesis adviser: Jane Stewart, Bioagricultural Sciences and Pest Management

Micah LeBoeuf Reich, Psychology major with Mind, Brain and Behavior concentration
Thesis title: *A Guide to First Responder Interactions with the Special Needs Community*
Thesis adviser: Karla Gingerich, Psychology

Megan Reynolds, Neuroscience major with Behavior and Cognitive Neuroscience concentration
Thesis title: *Exploring Vulnerability in Individuals with Williams Syndrome as a Result of Hyper-Sociability and Impaired Social Functioning*
Thesis adviser: Lisa Daunhauer, Human Development and Family Studies

Spencer Rhea, Watershed Science major and Political Science major
Thesis title: *Surface Water Quality Justice in the Contiguous United States*
Thesis adviser: Matthew Ross, Ecosystem Science and Sustainability

Madeline Richards, Biological Science major with Biological Science concentration
Thesis title: *Veterinary Staff - Professional Development and Job Satisfaction*
Thesis adviser: Lori Kogan, Clinical Sciences

Natalie Rios, Chemical and Biological Engineering major
Thesis title: *An Examination of Naloxone Pharmacokinetics in Humans Through the Use of a Physiologically Based Pharmacokinetic Model*
Thesis adviser: Brad Reisfeld, Chemical and Biological Engineering

- Lauren Rodgers**, History major with Social Studies Teaching concentration
Thesis title: *Research-Based and Engaging Education: An Eighth Grade Social Studies Unit Plan*
Thesis adviser: Jessica Jackson, History
- Addison Rzonca**, Psychology major with Clinical/Counseling Psychology concentration
Thesis title: *Relation Between Traumatic Events and Youth's Self Report of Resilience*
Thesis adviser: CK Rizzo, Human Development and Family Studies
- Daniel Sanchez**, Civil Engineering major
Thesis title: *Group 20: Whitewater Park Design for the City of Danville*
Thesis adviser: Christopher Thornton, Civil and Environmental Engineering
- Jacqueline Sanchez**, Interior Architecture and Design major
Thesis title: *Stay a While: A Study of "Third Place" and Coffeehouses*
Thesis adviser: Stephanie Clemons, Design and Merchandising
- Jordan Sandoval**, Biomedical Sciences major and Spanish minor
Thesis title: *Comparative Anatomy of Bovids and Camelids in Relation to High Altitude Disease*
Thesis adviser: Christianne Magee, Biomedical Sciences
- Alexandra Sands**, Natural Resource Tourism major with Natural Resource Tourism concentration and International Development, Spanish and Business Administration minors
Thesis title: *Social for Pathways: Human Dimensions of Wildlife Conference*
Thesis adviser: Paul Layden, Human Dimensions of Natural Resources
- Morgan Schackmuth**, Neuroscience major with Cell and Molecular Neuroscience concentration and Chemistry and Biochemistry minors
Thesis title: *Stress on the Brain: Exploring the Effects of Chronic Stress in the Frontal Cortices*
Thesis adviser: Brent Myers, Biomedical Sciences
- Margaret Schaub**, Biological Science major with Biological Science concentration
Thesis title: *Improving Patient Education Materials on Antibiotic Resistance*
Thesis adviser: Jennifer McLean, Microbiology, Immunology and Pathology
- Conrad S. Schelkopf**, Animal Science major
Thesis title: *Comparison of Two Different Colorimeters for Measuring Meat Color*
Thesis adviser: Mahesh Narayanan Nair, Animal Sciences
- Anna Kathleen Schofield**, Microbiology major
Thesis title: *Understanding of Vaccinations in the Day of Anti-Vaccinations*
Thesis adviser: Tony Schountz, Microbiology, Immunology and Pathology
- Claire Schreiber**, Environmental Engineering major and Environmental Engineering concentration
Thesis title: *Danville Whitewater Park: Hydraulic Drop Structure Design*
Thesis adviser: Ryan Morrison, Civil and Environmental Engineering
- Sydney Schwartz**, Civil Engineering major with Japanese minor
Thesis title: *PCI Big Beam Competition*
Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

Ian Scott, Fish, Wildlife and Conservation Biology major with Conservation Biology concentration and Zoology minor

Thesis title: *Investigating a Relationship Between Bee Diversity and Nonnative Plant Species in Camp Guernsey, Wyoming*

Thesis adviser: Mike Amato, CEMML

Madeline Scott, Human Development and Family Studies major with Prevention and Intervention Science concentration and Anthropology minor

Thesis title: *Professional Panel on Forensic Interviewing and Helping Abused Children*

Thesis adviser: Aimee Walker, Human Development and Family Studies

Samantha Jo Scott, Biological Science major with Biological Science concentration and Biomedical Sciences minor

Thesis title: *The Association Between Coping Strategies and Sleep: How Age May Make This Association Stronger*

Thesis adviser: Gloria Luong, Human Development and Family Studies

Kyle Shetler, Art major with Graphic Design and Arts Leadership and Administration minor

Thesis title: *The Methodology, Philosophy, and Systems within Design Thinking*

Thesis adviser: Jason Frazier, Art and Art History

Amanda Shick, Chemical and Biological Engineering major and Biomedical Engineering and Mathematics minors

Thesis title: *The Missing Link: ROS Impact on p53*

Thesis adviser: Ashok Prasad, Chemical and Biological Engineering

Emily Sikora, Biological Science major with Biological Science concentration and Spanish minor

Thesis title: *Mouth Listening: Exploring the Role of the Oral Cavity in Anuran Hearing*

Thesis adviser: Kim Hoke, Biology

Haley Simpson, Business Administration major with Accounting and Finance concentrations and Spanish minor

Thesis title: *The Impact of Standard of Living and Governance on the Extent of Adoption of International Financial Reporting Standards (IFRS) in Group of Twenty (G20) Countries: A Case Study*

Thesis adviser: Lisa Kutcher, Accounting

Kieran Simske, Biomedical Engineering and Mechanical Engineering major

Thesis title: *Optical Neurolink Project, Biomedical Engineering Senior Design*

Thesis adviser: Kevin Lear, Electrical and Computer Engineering

Jessica Sloom, Psychology major with Mind, Brain and Behavior concentration

Thesis title: *Guide to Creating a Bag Tag for the Mental Game of Golf*

Thesis adviser: Brian Butki, Health and Exercise Science

Kirstyn Smith-LeCavalier, Psychology major with Addiction Counseling concentration and Applied Statistics minor

Thesis title: *Item-Level Protective Behavioral Strategies as Mediators of the Relationship Between Marijuana Use Motives and Marijuana-Related Consequences*

Thesis adviser: Mark Prince, Psychology

Gabriella Raine Smuts, Zoology major

Thesis title: *Regulation of Anti-Reactive Oxygen Species (Anti-ROS) Proteins in the Moulting Gland (Y-organ) of the Blackback Land Crab, Gecarcinus lateralis*

Thesis adviser: Donald Mykles, Honors Program

- Natalie Spencer**, Environmental Health major and Food Science/Safety minor
Thesis title: *Waste Not, Want Not: an Analysis of Opportunities and Attitudes Around Managing Waste from Colorado State University's Residence Halls*
Thesis adviser: Judy Heiderscheidt, Environmental and Radiological Health Sciences
- Logan Stephenson**, Statistics major with General Statistics concentration
Thesis title: *Studying Snow Cover in California's Eastern Sierra*
Thesis adviser: Julia Sharp, Statistics
- Anna Marie Stewart**, English major with Writing, Rhetoric and Literacy concentration
Thesis title: *Copy Editing and Writing for Your Audience in News, Creative, and Technical Writing*
Thesis adviser: Lisa Langstraat, English
- Daniel Stone**, Chemical and Biological Engineering major
Thesis title: *BioPharma Team 1: Flu Vaccine Production in Plants*
Thesis adviser: Christie Peebles, Chemical and Biological Engineering
- Korissa Straub**, Ecosystem Science and Sustainability major and Watershed Science minor
Thesis title: *Spatiotemporal Nitrite, Nitrate, Ammonia and Sulfate Deposition Trends in Colorado Wastewater Effluent*
Thesis adviser: Matthew Ross, Ecosystem Science and Sustainability
- Jack Studer**, Biological Science major with Biological Science concentration and Conservation Biology minor
Thesis title: *Analysis of Genetic Diversity Among Cannabis Sativa Accessions Through Allele by Phenotype Association*
Thesis adviser: John McKay, Bioagricultural Sciences and Pest Management
- Merci Sugai**, Human Development and Family Studies major and Prevention and Intervention Science concentration
Thesis title: *Colorado State University Campus Tours: Comparing National Data and Other Research I Universities*
Thesis adviser: Pamela Graglia, School of Education
- Jonathon Sundeen**, Business Administration major and Finance concentration and Entrepreneurship certificate
Thesis title: *An Analysis of the Effect that Incidents Involving Sports Can Have on Stock Prices*
Thesis adviser: D Todd Donovan, Marketing
- Stephanie Talone**, Political Science major and Legal Studies minor
Thesis title: *The Importance of GIS in Managing Natural Disasters in the United States*
Thesis adviser: Melinda Laituri, Ecosystem Science and Sustainability
- Katelyn Tapia**, Biological Science major with Biological Science concentration and Biomedical Sciences and Chemistry minors
Thesis title: *A Comparative Study of the Reproductive Anatomy and Physiology Between Marsupial Mammals and Placental Mammals*
Thesis adviser: Gerrit Bouma, Biomedical Sciences
- Jenna Taylor**, Health and Exercise Science major with Sports Medicine concentration and Biomedical Sciences minor
Thesis title: *Skeletal Muscle Fatigue: Central and Peripheral Mechanisms with Clinical Application*
Thesis adviser: Jennifer Richards, Health and Exercise Science

- Madison N.Y. Taylor**, Economics major, Political Science major with Global Politics and Policy Concentration, and Journalism and Media Communications major
Thesis title: *Shirked Responsibility to Protect: Are There Explanations for International Indifference?*
Thesis adviser: Allison White, Political Science
- Wesley Taylor**, Computer Engineering major
Thesis title: *The Cost of Thinking: Evaluating the Usage of the Computation to Enhance Hybrid-electric Vehicle Efficiency*
Thesis adviser: Sudeep Pasricha, Electrical and Computer Engineering
- Reilly Terranova**, Philosophy major with General Philosophy concentration
Thesis title: *Can the Sceptic Live a Good Life?*
Thesis adviser: Jeff Kasser, Philosophy
- Ryan Thamert**, Engineering Science major with Space Engineering concentration and Mechanical Engineering major and Mathematics minor
Thesis title: *Drone Based Remote Livestock Monitoring*
Thesis adviser: Wade Troxell, Mechanical Engineering
- Zachary Van Handel**, Computer Science major with Computer Science concentration
Thesis title: *Beerchain: Tracking Beer Supply Chain with Blockchain*
Thesis adviser: Joe Gersch, Computer Science
- Matteo Vera**, Computer Science major with Computer Science concentration and Mathematics minor
Thesis title: *Beerchain: Tracking Beer Supply Chain with Blockchain*
Thesis adviser: Joe Gersch, Computer Science
- Leah Vick**, Microbiology major
Thesis title: *Then and Now: The Events of the Black Death and a Projection for the Next Pandemic*
Thesis adviser: Jennifer McLean, Microbiology, Immunology and Pathology
- Cassandra Vigil**, Biological Science major with Biological Science concentration
Thesis title: *Feasibility of Increasing Participation in Low-Income, Marginalized, and Underserved Populations in Genetic Studies*
Thesis adviser: Dan Sloan, Biology
- Kayla Visscher**, Business Administration major with Accounting concentration
Thesis title: *How to Legally Escape Taxes without Dying: Loopholes in the U.S. Tax System*
Thesis adviser: James Stekelberg, Accounting
- Kyle Vorreiter**, Mechanical Engineering major and Engineering Science major with Space Engineering concentration
Thesis title: *NASA Mining Robot*
Thesis adviser: Jianguo Zhao, Mechanical Engineering
- Helena Voss**, Psychology major with Mind, Brain and Behavior concentration
Thesis title: *Colorado Ski Resort Travel Blog*
Thesis adviser: Elizabeth Parks, Communication Studies
- Dylan Wagner**, Health and Exercise Science major with Sports Medicine concentration
Thesis title: *Comparing the Vascular and Performances Changes Between Grip Training Below vs Above Heart Level*
Thesis adviser: Jennifer Richards, Health and Exercise Science

Daria Walsh, Ecosystem Science and Sustainability major
Thesis title: *Analysis of Hochstetter's Frog Population with Relationship to Landscape Characteristics*
Thesis adviser: Steve Leisz, Anthropology and Geography

Alyssa Watts, Computer Science major with Computer Science concentration and Mathematics minor
Thesis title: *Ransomware: The Modern Bank Heist*
Thesis adviser: Joe Gersch, Computer Science

Valerie Taylor Weed, Chemistry major with ACS Certified concentration
Thesis title: *Teacher Identity- A Look Into What Motivates STEM Teachers to Teach and Their Perceptions of Recruiting Future Teachers*
Thesis adviser: Meena Balgopal, Biology

Elizabeth Weeks, Mathematics major with General Mathematics concentration and Japanese minor
Thesis title: *Taming the Hostility Towards Mathematics: a Podcast Aimed at Welcoming Self-Proclaimed "Non-Math People" to the World of Logic, Reason, and Magic.*
Thesis adviser: Patrick Shipman, Mathematics

Shijin Wei, Ecosystem Science and Sustainability major
Thesis title: *Effects of Tropical Rainforest Drought on Plant Root Growth and Soil Carbon Storage*
Thesis adviser: Rich Conant, Ecosystem Science and Sustainability

Samantha M. White, Mechanical Engineering major
Thesis title: *EcoCAR Mobility Challenge - Hybrid Electric Vehicle Controller Development*
Thesis adviser: Jason Quinn, Mechanical Engineering

Tara Wickstrom, Interior Architecture and Design major
Thesis title: *Inclusive Design Strategies: A Closer Look at Community Inclusivity Through the WELL Building Standard*
Thesis adviser: Leah Scolere, Design and Merchandising

Thomas Wilkinson, Electrical Engineering major with Electrical Engineering concentration and Mathematics minor
Thesis title: *Antenna Test Range in the Colorado State University Electromagnetics Laboratory*
Thesis adviser: Branislav Notaros, Electrical and Computer Engineering

Claire Wilson, Biomedical Sciences major and Leadership Studies minor
Thesis title: *Bridging The Gap: Dismantling Racial Health Disparities in Maternal and Infant Mortality*
Thesis adviser: Mark Brown, Clinical Sciences

Mikayla Woods, Business Administration major with Organization and Innovation Management and Marketing concentrations, and Market Research and Data Analytics and Leadership in Organizations certificates
Thesis title: *Mentoring and Professional Development: What Works*
Thesis adviser: Troy Mumford, Management

Delaney Worthington, Biological Science major with Biological Science concentration and Chemistry and Spanish minors

Thesis title: *Going Viral: A Hands-on Look at Microbes, Vaccines, and the Immune System*

Thesis adviser: Andrew Warnock, Education & Outreach Center

Wenrun Wu, Biochemistry major with General Biochemistry concentration

Thesis title: *Characterization of the Transcription Termination Factor Responsible for Polarity in Archaea*

Thesis adviser: Tom Santangelo, Biochemistry and Molecular Biology

Kan Xu, Ecosystem Science and Sustainability major

Thesis title: *Optimizing the Computational Methods for Determining Appropriate Snow Melt Rates*

Thesis adviser: Steven Fassnacht, Ecosystem Science and Sustainability

Abel Ykalo, Computer Science major with Computer Science concentration

Thesis title: *Diversity in Engineering Education: It is Not a Pipeline Problem*

Thesis adviser: Pamela Vaughan Knaus, Honors Program

Zoe Zakrzewski, Business Administration with Organization and Innovation Management and Marketing concentrations

Thesis title: *Creating Sustainable Fashion in a Throw-away Culture*

Thesis adviser: Susan Golicic, Management

Hu Zhang, Economics major and Business Administration major with Finance concentration

Thesis title: *Are People Living in Tourist Cities Happier?*

Thesis adviser: Martin Shields, Economics

Xinyi Zhang, Business Administration major with Finance concentration

Thesis title: *Why Donate to a Private, Nonprofit School? A Financial Analysis of the Alexander Dawson School*

Thesis adviser: Ellen Burnes, Finance and Real Estate

Yunan Zhu, Ecosystem Science and Sustainability major and Economics major and Business Administration and Mathematics minor

Thesis title: *Retrieval of Important Parameter of Evapotranspiration in Colorado Grassland Using the Operational Simplified Surface Energy Balance Algorithm*

Thesis adviser: Wei Gao, Ecosystem Science and Sustainability

Grant Zimmerman, Biochemistry major with Health and Medical Sciences concentration

Thesis title: *A Comparison of the 188 bp and 207 bp Variant Linker DNA Lengths in Chromatin Consensates*

Thesis adviser: Jeffrey Hansen, Biochemistry and Molecular Biology

Hope Lynne Zupfer, Biomedical Sciences major and Microbiology minor

Thesis title: *Probiotic Bacteria in Fermented Foods: Improving Treatment for Gastrointestinal Disease*

Thesis adviser: Tiffany Weir, Food Science and Human Nutrition