

## Candidates for University Honors Scholar

**Maizie Anders**, Political Science major and International Development minor

Thesis title: *The Value of and Process for Building an Emergency Management Program at Colorado State University*

Thesis adviser: Kate Browne, Anthropology and Geography

**Elena Arcaroli**, Biochemistry major with Health and Medical Sciences concentration and Chemistry minor

Thesis title: *A Reverse Engineering Approach to Generate Recombinant Antibodies to the Kinetochore Protein CENP-F*

Thesis adviser: Jennifer DeLuca, Biochemistry and Molecular Biology

**Maleah Ayars**, Biological Science major with Biological Science concentration

Thesis title: *Exploring Causes, Treatments, and Prognosis of Equine Deep Digital Flexor Tendon Injuries*

Thesis adviser: Jeremy Delcambre, Biomedical Sciences

**Reilly Blakeslee**, Economics major and Statistics major with General Statistics concentration and Mathematics and Global Environmental Sustainability minors

Thesis title: *The Viability of Wind, Solar, and Geothermal Energy From an Economic Perspective*

Thesis adviser: Jo Barbier, Economics

**Natalie Burke**, Mathematics major with General Mathematics concentration

Thesis title: *An Exploration in Perron's Theorem*

Thesis adviser: Henry Adams, Mathematics

**Annie Bush**, Nutrition and Food Science major with Dietetics and Nutrition Management concentration

Thesis title: *Effect of the Presence of Community and Mutual Aid on Food Insecurity and an Analysis of Current Projects in Larimer County*

Thesis adviser: Colleen Burke, Food Science and Human Nutrition

**Katherine Calsyn**, Mechanical Engineering major

Thesis title: *HABs Detecting Drone*

Thesis adviser: Steve Simske, Systems Engineering

**Annie Campaign**, Nutrition and Food Science major with Dietetics and Nutrition Management concentration

Thesis title: *An Evaluation to Inform Eating Disorder Prevention Efforts Targeting CSU Students*

Thesis adviser: Megan Mueller, Food Science and Human Nutrition

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

Thesis title: *A Bibliotherapy Approach to Sensory Processing Disorders*

Thesis adviser: Susan Hepburn, Human Development and Family Studies

**Cameron Catanese**, Business Administration major with Accounting concentration

Thesis title: *The Future of Multi-State Tax: How to Improve from the Past*

Thesis adviser: James Stekelberg, Accounting

**Sonali Chokshi**, Ecosystem Science and Sustainability major and Geospatial Information Science for Natural Resources minor

Thesis title: *Long Term Effects of Mining on Groundwater in Guernsey State Park*

Thesis adviser: Matthew Ross, Ecosystem Science and Sustainability

**Bethany Cominsky**, Zoology major

Thesis title: *RHDV2: Understanding the Impacts of Virus Concentration in Relation to Mortality Rates and Viral Shedding in New Zealand White Rabbits*

Thesis adviser: Angela Bosco-Lauth, Biomedical Sciences

**Colin Crawford**, Art major with Graphic Design concentration and Information Science and Technology minor

Thesis title: *Thinking Inside the Box: An Exploration of Personal Design*

Thesis adviser: Pamela Vaughan Knaus, University Honors Program

**Joanna Cromartie**, Animal Science major

Thesis title: *Developing a Dog Food for Pregnant Dogs*

Thesis adviser: John Wagner, Animal Sciences

**Faith Cunningham**, Biological Science major with Biological Science concentration

Thesis title: *A Comprehensive Literature Review of Myotis Volans*

Thesis adviser: Tanya Dewey, Biology

**Tiffany Deeds**, Biological Science major with Biological Science concentration

Thesis title: *The Characterization of Heterotrimeric G Proteins the Blackback Land Crab, Gecarcinus Lateralis*

Thesis adviser: Donald Mykles, Honors Program

**Sarah DeLacey**, Zoology major

Thesis title: *Effect of Genetic Diversity on Adaptation and Life History*

Thesis adviser: Ruth Hufbauer, Agricultural Biology

**Grace Detwiler**, English major with Literature concentration and Criminology/Criminal Justice minor

Thesis title: *Gendered Power Dynamics in English Renaissance Drama*

Thesis adviser: Barbara Sebek, English

**Audrey Dorin**, Computer Science major with Networks and Security concentration and Mathematics minor

Thesis title: *Beginnings Of the Quantum Internet*

Thesis adviser: Joe Gersch, Computer Science

**Marina Doty**, Psychology major with General Psychology concentration and Spanish minor

Thesis title: *Introducing Psychology in Elementary School*

Thesis adviser: Karla Gingerich, Psychology

**Bethany Dykson**, Fish, Wildlife and Conservation Biology major with Conservation Biology concentration and Spanish and Global Environmental Sustainability minors

Thesis title: *The Nature of Grassland Plant-Community Change with Frequency and Seasonality of Fire*

Thesis adviser: Melinda Smith, Biology

**Melanie Ford**, Neuroscience major with Behavioral and Cognitive Neuroscience

Thesis title: *A Review of the Structural and Functional Neuroimaging of Borderline Personality Disorder to Find the Underlying Causes of Symptoms in Order to Improve Treatment Methodologies*

Thesis adviser: Marty Amberg, Psychology

**Taylor Garner**, Biomedical Sciences major

Thesis title: *Comparisons of Genetic and Environmental Dual-Hit Models for Parkinson's Disease*

Thesis adviser: Ron Tjalkens, Environmental and Radiological Health Sciences

**Lillian Gary**, Sociology major with Criminology and Criminal Justice concentration and Legal Studies minor

Thesis title: *COVID-19 & Criminal Justice: An Analysis of Systemic Impacts & Opportunities for Reform*

Thesis adviser: Jeffrey Nowacki, Sociology

**Emily Girschick**, Political Science major and Global Environmental Sustainability and Environmental Sustainability minors

Thesis title: *A Policy Analysis of Colorado's Climate Action Plan To Reduce Pollution: Is It Feasible to Reduce Emissions in the Transportation Sector and have a Resulting Co-Benefits?*

Thesis adviser: Ryan Scott, Political Science

**Anna Gongaware**, Microbiology major and Spanish minor

Thesis title: *Orf Virus: Presentation, Prevention and Treatment*

Thesis adviser: Erica Suchman, Microbiology, Immunology and Pathology

**Olivia Good**, Biomedical Sciences major

Thesis title: *Mother Nature's Children*

Thesis adviser: Denise Apodaca, School of Music, Theatre and Dance

**Audrey Gruszczynski**, Biomedical Sciences major

Thesis title: *An Analysis Of Oncolytic Viruses and Their Advantages and Disadvantages in a Clinical Setting*

Thesis adviser: Alan Schenkel, Microbiology, Immunology and Pathology

**Emily Harper**, Social Work major and Spanish minor

Thesis title: *Increasing Family Engagement in Substance User Treatment Inclusively for all Gender Identities: Recommendations for Treatment Agencies*

Thesis adviser: Paula Yuma, School of Social Work

**Hunter Haskins**, Business Administration major with Organization & Innovation Management concentration

Thesis title: *How Gen. is Redefining Effective Marketing*

Thesis adviser: Liz Webb, Marketing

**Ashley Herrera**, Human Development and Family Studies major with Prevention and Intervention Science concentration

Thesis title: *"The Expensive to Be Poor": The Cost of Being Low Socioeconomic Status*

Thesis adviser: David MacPhee, Human Development and Family Studies

**Aidan Hettler**, Business Administration major with Supply Chain Management and Organization and Innovation Management concentrations and Spanish minor

Thesis title: *Tool Sharing Network: Developing a Business Plan to Enter a Virtual Two-Sided Market*

Thesis adviser: Kipp Krukowski, Management

**Jenna Holze**, Health and Exercise Science major with Sports Medicine concentration

Thesis title: *Juvenile Arthritis Across the Lifespan: Physiological Progression and Physical Effects*

Thesis adviser: Katherine Hutcheson, Health and Exercise Science

**Anastasia Horvath**, Biological Science major with Biological Science concentration and Business Administration and Chemistry minors

Thesis title: *Battles with Braces: Current and Potential Methods for Treating Oral Health Issues Associated with Orthodontic Treatment*

Thesis adviser: Leslie Stone-Roy, Biomedical Sciences

**Isabel Houck**, Health and Exercise Science major with Health Promotion concentration and Business Administration minor

Thesis title: *Growing Up Healthy: The Appropriate Age to Introduce Each Dimension of Health to Your Child*

Thesis adviser: Brian Butki, Health and Exercise Science

**Lauren Houdesheldt**, Biomedical Sciences major with Environmental Public Health concentration

Thesis title: *Combating the Spread of Zoonotic Diseases*

Thesis adviser: Judy Heiderscheidt, Environmental and Radiological Health Sciences

**Kaitlynn Husovsky**, International Studies major with Asian Studies concentration and Political Science, Chinese and Business Administration minors

Thesis title: *China's One-Child Policy: Demographic Economic Impacts*

Thesis adviser: Hong Xiang, History

**Emily Jenkins**, Ecosystem Science and Sustainability major

Thesis title: *The Path to Sustainable Profit: Analyzing the European Union and B Corporation Movement in Sustainable Business Models*

Thesis adviser: Anne Marie Merline, Honors Program

**Asher Johnson**, Horticulture major with Horticultural Therapy concentration

Thesis title: *Utility of Aquariums as a Horticultural Therapy Activity*

Thesis adviser: Jennifer Boussetot, Horticulture and Landscape Architecture

**Spencer Jordan**, Civil Engineering major

Thesis title: *Numerical Modeling of the Transport and Fate of Ice Nucleating Particles Inside a Continuous Flow Diffusion Chamber*

Thesis adviser: Shantanu Jathar, Mechanical Engineering

**Do Ka**, Biomedical Sciences major

Thesis title: *The Effects of Glucocorticoid Signaling on Exercise Performances in Male Rats at High-Altitude*

Thesis adviser: Adam Chicco, Biomedical Sciences

**Faith Kelly**, Ecosystem Science and Sustainability major and Role of Sustainability in Peace and Reconciliation

Thesis title: *Understanding perceptions of Zero Waste within Colorado State University's Warner College of Natural Resources*

Thesis adviser: Ben Greenlee, English

**Spencer Kuhn**, Statistics major with General Statistics concentration, Biological Science major with Biological Science concentration and Mathematical Biology and Mathematics minors

Thesis title: *Life Imitates Cartography: Deliberate Imperfections & Realism in a Cartographer's Journey*

Thesis adviser: Anne Marie Merline, Honors Program

**Aubrey Lawrence**, Business Administration major with Marketing concentration and Entrepreneurship and Innovation minor

Thesis title: *Examining The Negative Effects of Influencer Marketing on Consumers Purchase Intentions and Brand Image*

Thesis adviser: Kelly Martin, Marketing

**Boston Lee**, Statistics major and Philosophy major with General Philosophy concentration  
Thesis title: *The Relationship between Potential Financial Stress and Mental Health in the United States*

Thesis adviser: Joshua Keller, Statistics

**Megan Lems**, Fish, Wildlife and Conservation Biology with Wildlife Biology concentration  
Thesis title: *The Role of Migratory Birds in Disease Transmission*

Thesis adviser: Liba Pejchar, Fish, Wildlife & Conservation Biology

**Kristen Long**, Biomedical Sciences major and Health and Exercise Science major with Sports Medicine concentration

Thesis title: *Mock Grant Proposal for the Implications of SARS-CoV-2 Infection among Individuals with Metabolic Diseases*

Thesis adviser: Jennifer McLean, Microbiology, Immunology and Pathology

**Alyssa Loveless**, Health and Exercise Science major with Sports Medicine concentration and Biomedical Sciences minor

Thesis title: *Osteoporosis Prevention through Education and Exercise in College Aged Women*

Thesis adviser: Wendy DeYoung, Health and Exercise Science

**Brady Maghran**, Forest and Rangeland Stewardship major with Rangeland Conservation and Management concentration

Thesis title: *Native Seed Collection Through the Society of Ecological Restoration*

Thesis adviser: Jeremy Sueltenfuss, Forest & Rangeland Stewardship

**Nicole Maheu**, Biochemistry major with General Biochemistry concentration and Chemistry minor

Thesis title: *Suppression of Glucagon Secretion Shows Promise as a Potential Treatment Option for Type 2 Diabetes Mellitus*

Thesis adviser: Aaron Sholders, Biochemistry and Molecular Biology

**Atalie Manning**, Human Development and Family Studies major with Pre-Health Professions concentration

Thesis title: *Context and Evaluation of Communication and Object Planning Development in Infants and Down Syndrome*

Thesis adviser: Deborah Fidler, Human Development and Family Studies

**Stacia McKinney**, Microbiology major

Thesis title: *Trematodes in Aquatic Mollusk Intermediate Hosts Above and Below Wastewater Treatment Plants of Front Range Drainages*

Thesis adviser: Dan Preston, Fish, Wildlife and Conservation Biology

**Morgan Moss**, English major with Creative Writing concentration

Thesis title: *Young Adult Creative Fiction Novella*

Thesis adviser: Ricki Ginsberg, English

**Molly Moxness**, Philosophy major with Philosophy, Science and Technology concentration and Biomedical Sciences minor

Thesis title: *Life is More Than a Beating Heart: A Case for Upholding Brain Death as the Biological Death of a Person*

Thesis adviser: Moti Gorin, Philosophy

**Zachary Nistad**, Psychology major with Clinical/Counseling Psychology concentration

Thesis title: *Office Hours Podcast*

Thesis adviser: Nicole Vieira, Honors Program

**Samuel Nolledo**, Political Science major with Global Politics and Policy concentration and History major with General History concentration

Thesis title: *America in Transition: The Development of an American National Identity From 1812-1860*

Thesis adviser: Douglas Sheflin, History

**Brandon Paez**, Psychology major with Clinical/Counseling Psychology concentration

Thesis title: *The Pessimist's Guide to Optimism: The Glass is Half Full... Or, Is It?*

Thesis adviser: Pamela Vaughan Knaus, Honors Program

**Brenna Pavey**, International Studies major with European Studies concentration, Languages, Literatures and Cultures major with French concentration and Political Science minor

Thesis title: *Colorado State University Campus Tour in French*

Thesis adviser: Mariejo Hofmann, Languages, Literatures and Cultures

**Brandon Pietrs**, Business Administration major with Accounting and Finance concentrations

Thesis title: *Game Theory: Exploring Human Behavioral Impacts on US Financial Markets*

Thesis adviser: Jennifer Coats, Finance and Real Estate

**Benjamin Randall**, Journalism and Media Communication major and Leadership Studies minor

Thesis title: *The Nuisance of News: Why All News Seems "Bad"*

Thesis adviser: Katie Abrams, Journalism and Media Communication

**Samantha Randall**, Biochemistry major with Health and Medical Sciences concentration and Spanish minor

Thesis title: *Fibrodysplasia Ossificans Progressiva: Gene Therapy is the Goal...But How Do We Get There?*

Thesis adviser: Eric Ross, Biochemistry and Molecular Biology

**Molly Ranger**, Family and Consumer Sciences major with Family and Consumer Sciences concentration

Thesis title: *The Importance of Integrating Cultural Relevancy into Culinary Nutrition Curriculum*

Thesis adviser: Dawn Mallette, School of Education

**Adam Rehn**, Geography major

Thesis title: *Investigating the Link between Camellia Sinensis Cultivation and Deforestation in Southwestern Kenya: An Analysis of Tea Plantations and Forest Cover Near Kericho, Kenya Using Remote Sensing Data*

Thesis adviser: John Lindenbaum, Anthropology and Geography

**Logan Rowley**, Fish, Wildlife and Conservation Biology with Wildlife Biology and Fisheries and Aquatic Sciences concentrations

Thesis title: *The Effect of Pit-tags on the Survival of a Wild Population of Boreal Toads (Anaxyrus Boreas Boreas)*

Thesis adviser: Larissa Bailey, Fish, Wildlife and Conservation Biology

**Joshua Rudd**, Business Administration major with Supply Chain Management concentration and Economics Major

Thesis title: *Redeeming The Future: An Examination of the Student Debt Crisis, it's Current and Future Impacts, and Potential Solutions.*

Thesis adviser: Alexandra Bernasek, Economics

**Holly Ryan**, Political Science major with Global Politics and Policy concentration and Communication Studies major and Legal Studies minor

Thesis title: *The National Prayer Breakfast: How Christian Fundamentalists Infiltrated the American Presidency*

Thesis adviser: Courtenay Daum, Political Science

**Riley Sanders**, Political Science major with U.S. Government, Law and Policy concentration and Legal Studies minor

Thesis title: *Illegal Fossil Collection and Commerce*

Thesis adviser: Gina Robinson, College of Liberal Arts

**Ryan Schmidt**, Economics major and Legal Studies minor

Thesis title: *Substitution in Outdoor Recreation from Rocky Mountain National Park during the COVID-19 Pandemic*

Thesis adviser: Jude Bayham, Agricultural and Resource Economics

**Isaac Sloan**, Business Administration major with Marketing concentration

Thesis title: *Calculating the Embodied Energy Required for Solvolysis Recycling of Carbon Fiber through a Life-Cycle Assessment to Determine Potential Market Applications*

Thesis adviser: Jason Quinn, Mechanical Engineering

**Sierra Snyder**, Psychology major and Clinical/Counseling Psychology concentration

Thesis title: *An Alternative Literature Review: Different Therapeutic Approaches*

Thesis adviser: Karla Gingerich, Psychology

**Abigail Sorapuru**, Biomedical Sciences major

Thesis title: *Discussion of LGBTQ+ Based Films and Their Impact on Consumers*

Thesis adviser: Carl Burchardt, Communication Studies

**Nicole Stevenson**, Business Administration major with Information Systems concentration and Applied Management Account for Decision Marketing

Thesis title: *The Future of Privacy Systems and Storing Employee Biometric Data in the Cloud*

Thesis adviser: Margarita Lenk, Accounting

**Nathaniel Stock**, Civil Engineering major

Thesis title: *Senior Design Project: A Journey Into Transportation Design*

Thesis adviser: Christopher Thornton, Civil and Environmental Engineering

**Sophia Stromberg**, Nutrition and Food Science major with Nutrition Sciences concentration

Thesis title: *Nutritional Status and COVID-19 Disease Severity: An Analysis of Vitamin Levels and Fatty Acid Profiling in Patients Infected with SARS-CoV-2*

Thesis adviser: Elizabeth Ryan, Environmental and Radiological Health Sciences

**Emma Sudbeck**, Zoology major

Thesis title: *Fox Squirrel (*Sciurus Niger*) Distribution in Relation to Open vs Closed Trash Cans on Colorado State University's Campus*

Thesis adviser: Larissa Bailey, Fish, Wildlife and Conservation Biology

**Madeline Sykes**, Microbiology major

Thesis title: *Early Removal of the Infrapatellar Fat Pad Alters Pathogenesis of Osteoarthritis in the Dunkin Hartley Guinea Pig*

Thesis adviser: Kelly Santangelo, Microbiology, Immunology and Pathology

**Alexandra Taylor**, Mathematics major with General Mathematics concentration and Economics major and Global Environmental Sustainability minor

Thesis title: *Department of Agricultural and Resource Economics*

Thesis adviser: Andrew Seidl, Agricultural and Resource Economics

**Analise Tierney**, Equine Science major and Biomedical Sciences minor

Thesis title: *Gene Expression Comparisons in Cattle for Pulmonary Hypertension*

Thesis adviser: Stephen Coleman, Animal Sciences

**Ryan Trost**, Computer Science major with Computer Science concentration and Mathematics major with General Mathematics concentration

Thesis title: *Solving Partial Differential Equations with Machine Learning*

Thesis adviser: Wolfgang Bangerth, Mathematics

**Sinclair Vandervoort**, Human Development and Family Studies major with Leadership and Entrepreneurial Profession concentration and Youth Mentoring with Campus Connection certificate

Thesis title: *Applied Developmental Leadership Theory in Near-peer Mentoring Experiences*

Thesis adviser: Katie Gerst, Human Development and Family Studies

**Sydney Wayne**, Biological Science major with Biological Science concentration

Thesis title: *Phenotypic Plasticity in Reptiles: An Exploration and a Proposal*

Thesis adviser: Jennifer Neuwald, Biology

**Jack Whalen**, Biomedical Engineering major

Thesis title: *The COVID-19 Pandemic: Designing a Large-Scale Vaccine Production Facility*

Thesis adviser: John Sheehan, Chemical and Biological Engineering

**Alexeea Wilson**, Animal Science major and Biomedical Sciences minor

Thesis title: *An Exploration of Equine Laminitis and Founder*

Thesis adviser: Christianne Magee, Biomedical Sciences

**Amber Wilson**, Biochemistry & Molecular Biology major with General Biochemistry concentration and Biomedical Sciences major with Microbiology and Infectious Disease concentration and Chemistry and Molecular Biology minors

Thesis title: *Profiling microRNA Expression in the Equine Hindgut*

Thesis adviser: Stephen Coleman, Animal Science

**Eleanore Wright**, Business Administration major with Marketing concentration

Thesis title: *Young Life College: Website Design Development Project*

Thesis adviser: Arnold Robinson, Marketing

**Kirsten Yinger**, Biological Science major with Biological Science concentration

Thesis title: *A Case Study on a Volunteer Human-Dog Team Conducting Animal Assisted Therapies: The Benefits for the Volunteer, Dog, and Client*

Thesis adviser: Helen Holmquist-Johnson, School of Social Work

**Preston Young**, Business Administration major with Accounting concentration

Thesis title: *Vibrancy Skin Care Salon Business Plan*

Thesis adviser: Margarita Lenk, Accounting

**Cassandra Young**, Business Administration major with Supply Chain Management concentration

Thesis title: *Air Sport and Aviation Blog*

Thesis adviser: Denise Apodaca, School of Music, Theatre and Dance