

## Research Day 2019

## An Event during University of Northern Colorado's Academic Excellence Week

Highlighting and recognizing graduate and undergraduate student research throughout all disciplines at the University of Northern Colorado.

## April 11, 2019 University Center

Sponsored and coordinated by
Center for Honors, Scholars & Leadership
McNair Scholars Program
The Graduate School
Office of Undergraduate Research
Office of Research
Graduate Student Association

A full list of abstracts is available through the Grupio on line program: https://www.grupio.com/UNCOResearchDay2019

## **Acknowledgements**

The Center for Honors, Scholars and Leadership, the Office of Undergraduate Research, and the Graduate Student Association would like to extend their heartfelt thanks to the following individuals and groups who were instrumental in organizing and facilitating this year's Research Day:

Margaret McKeown Kelley, Center for HSL Admin. Assistant Sarah Zwetzig, Graduate Assistant, Center for HSL Esther Luce, Undergraduate Assistant, Center for HSL Ace Spitzer, Undergraduate Assistant, Center for HSL Summer Raines, Undergraduate Assistant, Center for HSL Isabel Martinez-Venegas, Undergraduate Assistant, Center for HSL Grace Davis, Undergraduate Assistant, Center for HSL Krista Caufman, Director, McNair Scholars Daniel Westerlind, Graduate Assistant, The Graduate School Angela Vaughn, Assistant Professor Curriculum and Instruction, First Year Seminars Rebecca Broghammer, Instructor, Honors Program Margaret Sebastian, Graduate Assistant Sara Schuhardt, Graduate Assistant for Office of Research Kristin Bovaird-Abbo, Faculty Fellow for Honors Program Elizabeth Shmikler, Graduate Assistant Deborah Romero, Director Office of Engagement Mitchell McGlaughlin, Professor, Biology, School of Biology Symposium Coordinator Janice Dickensheets, Faculty Fellow for Undergraduate Research Linda Black, Associate Provost, Dean of the Graduate School

Academic Excellence Week Poster and Program Cover Artwork created by Casey Ryder

## **Research Excellence Awards**

We would like to thank all of the faculty members and graduate students who assisted with the 2019 Research Excellence Award competition.

#### **Faculty Judges & Abstract Reviewers**

Fatimah Alebrahim - Adjunct Faculty, Applied Statistics and Research Methods

Margaret Berg - Associate Professor of Teacher Education Kristin Bovaird-Abbo - Associate Professor of English

Amie Cieminski – Assistant Professor of Educational Leadership

Rhonda Corman - Assistant Professor of Economics

Melissa Donley - Senior Lecturer on Communication Studies Darren llett - Assistant Professor, Information Literacy Librarian

Jeff Gilis - Lecturer of Nutrition

Jieun Lee - Assistant Professor of Geography, GIS, and Sustainability

Brianne Markowski - Assistant Professor, University Libraries

Jeanette McNeill - Professor of Nursing Mel Moore - Professor of Sociology

Kathie Records - Associate Professor of Nursing

Chelsie Romulo – Assistant Professor of Environmental and

Sustainability Studies

Mary Schuttler - Professor of Theatre Arts

Laura Stewart - Professor of Sport and Exercise Science

Katherine Sullivan - Assistant Professor of Nursing

Angela Vaughn – Asst. Prof of Curriculum & Inst., First Year Seminars

Isaac Wanasika- Associate Professor of Management

Michael Welsh - Professor of History

#### **Graduate Student Judges & Session Facilitators**

Emma Allen-Morgan - Sociology Otto Buchholz – Biomechanics

Raquel Busekrus - Sport and Exercise Science

Melynie Campbell – Music Education Brittany Dorn – Special Education Kerry Duck – Educational Psychology Victoria Flores – Sport & Exercise Science

Brian Fowler – Sport Management

Michael Graham – Counselor Education & Supervision

Rammi Hazzaa - Sport & Exercise Science

Matthew Koziol – Graduate Interdisciplinary Program Sandra Larson - Clinical Mental Health Counseling

Winsome Lewis - English

Miranda Maher - School Psychology Tatum Monaghan - Educational Studies Shane Murphy - Sport and Exercise Science

Erika Power – Nursing

Nathan Robey - Biomechanics

Jason Rose - Counselor Education and Supervision

Margaret Sebastian - Higher Education & Student Affairs Leadership

Cara Smith - Biological Education

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## Direct questions regarding Research Day and Academic Excellence Week to

Loree Crow, Director for Honors and Scholars
Office of Undergraduate Research
Center for Honors, Scholars and Leadership
University of Northern Colorado
Campus Box 13
Greeley, CO 80639
(970) 351-2940

honors@unco.edu www.unco.edu/honors

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Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation		
		ORAL PRE	ESENTATIONS					
	Session #1 9:00 AM - 9:45 AM (presenters check-in at 8:45AM)							
Aspen A								
Effectiveness of the People Power Planet Campaign	9:00 - 9:15 a.m.	Undergraduate Presentation	Sprague, Sara	Sociology	Moore, Melanie			
Green Spaces and Black Faces: An Analysis of Black Family Beliefs about Green/Wild Spaces	9:15 - 9:30 a.m.	Undergraduate Presentation	Monroe, Calesia	Sociology	Moore, Melanie			
Family Time and Recreational Delinquency	9:30 - 9:45 a.m.	Undergraduate Presentation	Pearson, Brooke	Sociology	Moore, Melanie			
		As	pen B					
Los inicios de la literatura española	9:00 - 9:15 a.m.	Undergraduate Presentation	Sanchez, Gabriela	Foreign Languages	Garza, Efrain			
La diversidad geográfica y cultural de España	9:15 - 9:30 a.m.	Undergraduate Presentation	Esquivel, Janette	Foreign Languages	Garza, Efrain			
Circadian Rhythm Disruptions	9:30 - 9:45 a.m.	Graduate Presentation	Fraley Wieburg, Kristy	Nursing	Sullivan, Katherine			
		As	spen C		T	T		
Pop Goes La Cultura: American Pop Culture's Perpetuation of Latino Paradigms and Stereotypes	9:00 - 9:15 a.m.	Undergraduate Presentation	Quinones Rivas, Adrian	Business	Saenz, Berlinda	Honors		
An Analysis of the Linguistic Influence of Guaraní on Paraguayan Spanish	9:15 - 9:30 a.m.	Undergraduate Presentation	Reich, Nathan	Foreign Languages	Ryan, John	Honors		
"I Dissent, Therefore, from this Legalization of Racism": A Legal Analysis of Korematsu v. United States	9:30 - 9:45 a.m.	Undergraduate Presentation	Sadler, Madelyn	Interdisciplinary Studies	Bovaird-Abbo, Kristin	Honors		
		Colu	mbine A		ı	ı		
Assessing Practitioner Practices and Perceptions Regarding HIV Among the Latinx Community in Rural Northern Colorado	9:00 - 9:15 a.m.	Graduate Presentation	Barraza, Sujeith	Public Health	Sharp, Teresa			
Community-based Toolkit: Providing Rural Practitioners with information and resources to improve HIV Care Access for Latinx Communities	9:15 - 9:30 a.m.	Graduate Presentation	Darrell, Emily	Public Health	Sharp, Teresa			
"Agents of Change": A Community Art Program to Build Confidence and Resiliency in Youth	9:30 - 9:45 a.m.	Graduate Presentation	Berry, Ashley	Public Health	Sharp, Teresa			

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
	RESEARCH EX	CELLENCE AWA	RD PRESENTATIONS: Columb	bine B		
UNCO ROTC Nutrition Program: Nutrient Analysis and Potential Health Risks	9:00 - 9:15 a.m.	Undergraduate Presentation	Meline, Carissa; Burns, Madison	Nutrition & Dietetics	Kage, Katie	Research Excellence Award Finalist
The Relationship Between Emoji Identification Accuracy and Self-Reported Emotional Intelligence in College Students	9:15 - 9:30 a.m.	Undergraduate Presentation	O'Brian, Jessica	Audiology & Speech- Language Sciences	Murza, Kimberly	Research Excellence Award Finalist, Honors
Effect of Cannabidiol and delta-9- Tetrahydrocannabinol Concentration on Breast Cancer Cell Viability	9:30 - 9:45 a.m.	Undergraduate Presentation	Agyemang, Dorothy	Biological Sciences	Pullen, Nicholas	Research Excellence Award Finalist, Honors
		Sp	ruce A	•	•	T
Nutrition for Fitness and Athletic Performance Class Research Reviews	9:00 - 9:45 a.m.	Undergraduate Presentation	Battersby, Anna; Engelkins, Mackenzie; Ezeamii, Sofia	Nutrition & Dietetics	Gould, Susan	
		Sp	ruce B			
Colorado Chicana/o Community Art Forms	9:00 - 9:45 a.m.	Undergraduate Presentation	Sandoval- Gutierrez, Jasmine; Caparachini, Ydrenni; Guijarro Marquez, Alondra; Renteria Gonzalez, Miriam; Carranza Arroyo, Alondra; Morales, Edgar; Amaro Martinez, Ashley; Patterson, David; Bitz, Shianne; Ramirez, Allison	Mexican American Studies	Falcon, Priscilla	
		Sp	ruce B			
The History of Nothing	9:00 - 9:15 a.m.	Undergraduate Presentation	Stover, Katie	Mathematics	Levin, Oscar	
Historical Implications Upon the Development of Division Within the Classroom	9:15 - 9:30 a.m.	Undergraduate Presentation	Mildenberger, Maggie	Mathematics	Levin, Oscar	
A Brief History of the Fundamental Theorem of Arithmetic	9:30 - 9:45 a.m.	Undergraduate Presentation	Franco, Lorraine	Mathematics	Levin, Oscar	
		ORAL PRE	ESENTATIONS			
	Session #2 1	0:00 AM - 10:45	AM (presenters check-in at 9:4	15AM)		
		As	spen A			
Masculinity in Chinese Literature	10:00 - 10:15 a.m.	Undergraduate Presentation	Negash, Sahel	Asian Studies	Low, Michelle	
Theme of Retribution in Traditional Chinese Stories	10:15 - 10:30 a.m.	Undergraduate Presentation	Delay, Miranda	Asian Studies	Low, Michelle	Research Excellence Award Finalist

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation		
The Misrepresentation of Women in Chinese History	10:30 - 10:45 a.m.	Undergraduate Presentation	Chavez, Kathia	Asian Studies	Low, Michelle			
Aspen B								
Brand legitimacy in eSport	10:00 - 10:15 a.m.	Graduate Presentation	Garcia Ramos, Jesus; Paek, Bomin	Sport & Exercise	Oja, Brent			
A look at Sport Management Doctoral Programs and the Organizational Environment with Person-Environment Fit Theory	10:15 - 10:30 a.m.	Graduate Presentation	Brannigan, Kyle; Oja, Brent; Martyn, Jay	Sport & Exercise	Oja, Brent			
Out of left field? An estimation of the effect of bullpenning on team performance	10:30 - 10:45 a.m.	Graduate Presentation	Jung, Hoyoon; Mullen, Regan	Sport & Exercise	Oja, Brent			
		As	pen C					
The Impact of First Language (L1) Transfer On Second Language (L2) Learning	10:00 - 10:15 a.m.	Undergraduate Presentation	Reich, Nathan	Foreign Languages	Del Carpio Ovando, Karla	Honors		
Abatement Approximations: Using Econometrics to Estimate Cost of Asbestos Abatement	10:15 - 10:30 a.m.	Undergraduate Presentation	Mayfield, Kori	Economics	Senbet, Dawit	Honors		
Arthur Ashe, Muhammad Ali, and Black Masculinity: Defining What it Means to be a Black Activist and Athlete during the Civil Rights Movement	10:30 - 10:45 a.m.	Undergraduate Presentation	McBride, Joshua	Africana Studies	Boyce, Travis	Honors		
		Colu	mbine A					
Strategies to Increase Condom Use Among Women of Color	10:00 - 10:15 a.m.	Graduate Presentation	Walker, Leslie	Public Health	Sharp, Teresa			
Resilience and physical activity among women living with chronic pain	10:15 - 10:45 a.m.	Graduate Presentation	Davis, Lauren; Brittain, Danielle; Moser, Erin	Public Health	Sharp, Teresa			
	RESEARCH EXC	CELLENCE AWA	RD PRESENTATIONS: Columb	oine B				
The Interaction Of People With Mental Illnesses And Coercive Interrogation: The Capability Of Jurors To Consider The Totality Of The Circumstances	10:00 - 10:15 a.m.	Undergraduate Presentation	Derby, Kathryn	Psychology	Woody, William	Research Excellence Award Finalist, Honors		
Student Motivation in Education: An Assessment and Intervention in Real-Time	10:15 - 10:30 a.m.	Undergraduate Presentation	North, Maddison	Psychology	Phillips, Michael	Research Excellence Award Finalist, Honors		
A Qualitative Analysis of Therapeutic Alliance from the Perspective of Adults with Autism Spectrum Disorder	10:30 - 10:45 a.m.	Undergraduate Presentation	Monington, Jewel	Audiology & speech- language	Murza, Kimberly	Research Excellence Award Finalist, Honors		

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		Sp	ruce A			
Advanced Nutrition Presentation – Breast Milk and the Human Gut Microbiome	10:00 - 11:00 a.m.	Undergraduate Presentation	Silva, Alexander; Meline, Carissa	Nutrition & Dietetics	Clark, Alena	
Advanced Nutrition Presentation – Breastfeeding vs. Formula Feeding and the Gut Microbiome	10:00 - 11:00 a.m.	Undergraduate Presentation	Engelkins, Mackenzie; Burns, Madison; Vassallo, Meg; Ezeamii, Sofia	Nutrition & Dietetics	Clark, Alena	
Advanced Nutrition Presentation – Maternal High Fat Diet and Inflammation	10:00 - 11:00 a.m.	Undergraduate Presentation	Diebold, Lauren; Ortiz Alvarado, Maximiliano; Weeber, Emily	Nutrition & Dietetics	Clark, Alena	
Advanced Nutrition Presentation – Mediterranean Diet & Alzheimer's Disease	10:00 - 11:00 a.m.	Undergraduate Presentation	Denardo, Samantha; Alberghini, Alma; Anderson, Lindsey	Nutrition & Dietetics	Clark, Alena	
		Sp	ruce B			
Are They the Future? Or, A Shadow of the Present? [¿Son el futuro? O ¿Una sombra del presente?]	10:00 - 12:00 a.m.	Undergraduate Presentation	Cardenas Alfaro, Erika	Foreign Languages	Bernales Albites, Enrique	
Parallels and Differences: The social and political environments of Hispanic and Latin immigrants from the 1930's to the present	10:00 - 12:00 a.m.	Graduate Presentation	Erickson, Charlie	Foreign Languages	Bernales Albites, Enrique	
The Abuse of the humble [El abuso del humilde]	10:00 - 12:00 a.m.	Undergraduate Presentation	Esquivel, Janette	Foreign Languages	Bernales Albites, Enrique	
Gender Roles In Warma Kuyay [Los roles de género en "Warma Kuyay"]	10:00 - 12:00 a.m.	Undergraduate Presentation	Lopez, Naomy	Foreign Languages	Bernales Albites, Enrique	
The effects of Spanish Colonization on Peruvian Literature Los efectos de la colonización española en la literatura peruana	10:00 - 12:00 a.m.	Undergraduate Presentation	Hernandez, Miriam	Foreign Languages	Bernales Albites, Enrique	
Society issues in the 50's in Peru [Problemas de la sociedad en Perú en la década de 1950]	10:00 - 12:00 a.m.	Undergraduate Presentation	Nunez Ayala, Reyna	Foreign Languages	Bernales Albites, Enrique	
Colonialism in Indigenous Lands (Colonialismo en Tierras Indígenas)	10:00 - 12:00 a.m.	Undergraduate Presentation	Rogers, Emma	Foreign Languages	Bernales Albites, Enrique	
The social and economic unrest of Peru in the 1950s [La inestabilidad social y económica en el Perú de la década de 1950]	10:00 - 12:00 a.m.	Undergraduate Presentation	Sanchez, Gabriela	Foreign Languages	Bernales Albites, Enrique	

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Spruce C								
Reclaiming Heritage: Core and Periphery in Cultural Heritage Exchange	10:00 - 10:30 a.m.	Undergraduate Presentation	Applied Anthropology Students	Anthropology	Kimball, Michael	Community Engaged Scholars		
		ORAL PR	ESENTATIONS					
	Session #3 11	1:00 AM - 11:45 A	AM (presenters check-in at 10:4	45AM)				
		As	spen A					
Music is My Weapon: Fela Kuti and the Afrobeat Movement	11:00 - 11:15 a.m.	Graduate Presentation	Nieto, Mario	Music	Yamprai, Jittapim			
"The exotic Orient" in America: Arthur Foote's "Five Poems after Rubaiyat Omar Khayyam"	11:15 - 11:30 a.m.	Graduate Presentation	Shayani, Golriz	Music	Yamprai, Jittapim			
Behind the Land of Smiles: People's Songs and Their Fight Against the Thai Coup	11:30 - 11:45 a.m.	Graduate Presentation	Kuankachorn, Athita	Music	Yamprai, Jittapim			
Significant Compositional Techniques in Béla Bartók's Piano Music	11:45 - 12:00 a.m.	Graduate Presentation	Gularnupong, Karn	Music	Luttmann, Stephen			
		As	pen B					
An Empirical Analysis of Student Debt on Future Life Choices	11:00 - 11:30 a.m.	Undergraduate Presentation	Luke, Emily; Gottbehuet, Cora; Seely, Taylor; Aiona, Harmony	Economics	Wanasika, Isaac			
		Aspen C (Round	dtable Presentation)					
France Post-Charlie Hebdo (2015)	11:00 - 11:45 p.m.	Undergraduate Presentation	Sauble-Otto, Lorie; Engstrom, Cheyenne; Witchard, Tiffany; Bugg, Mary; Nowak, Rayanne; Largent-Woods, Austin; Bucklew, Amelia	Foreign Languages	Sauble-Otto, Lorie			
		Colu	mbine A					
Sexual health disparities: knowledge, access to information, and sexual risk behavior	11:00 - 11:30 a.m.	Graduate Presentation	Kelly, Brianna; Grose, Rose	Public Health	Sharp, Teresa			
Training Module for Creating a Culture of Responsible Drinking at UNC	11:30 - 11:45 p.m.	Undergraduate Presentation	Harrington, Elisabeth	Public Health	Hall, Kelly			

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	RESEARCH EXCELLENCE AWARD PRESENTATIONS: Columbine B									
Theme of Retribution in Traditional Chinese Stories	11:00 - 11:15 a.m.	Undergraduate Presentation	Delay, Miranda	Asian Studies	Low, Michelle	Research Excellence Award Finalist				
Ancestral Pueblo Pottery: Cataloguing, Curation, Mount Making, and more	11:15 - 11:30 a.m.	Undergraduate Presentation	Jennings, Elizabeth	Anthropology	Creekmore, Andrew	Research Excellence Award Finalist, Honors				
The "NEET-Freak"	11:30 - 11:45 a.m.	Undergraduate Presentation	Marcial, Joshua	Asian Studies	Low, Michelle	Research Excellence Award Finalist				
		Sp	ruce A	1	•	•				
Development of a Sports Nutrition Education Curriculum for High School Athletes	11:00 - 12:00 a.m.	Graduate Presentation	Alvidrez, Leticia	Nutrition & Dietetics	Gould, Susan					
Medicinal Cannabis for Appetite Stimulation – Non-Cannabis - Containing Edible Recipe Reformulation and Sensory Evaluation	11:00 - 12:00 p.m.	Graduate Presentation	Curry, Bailee	Nutrition & Dietetics	Gould, Susan					
The Effects of Early Enteral Nutrition in Critically III Patients Receiving Vasopressor Therapy	11:00 - 12:00 p.m.	Graduate Presentation	Caton, Erika	Nutrition & Dietetics	Gould, Susan					
An Analysis of MyPlate Food Group Intake in Children with an Autism Spectrum Disorder	11:00 - 12:00 p.m.	Graduate Presentation	Hsueh, Esther	Nutrition & Dietetics	Withrow, Nicole	Research Excellence Award Finalist				
	Spruc	e B *Continu	ed from previous session							
Are They the Future? Or, A Shadow of the Present? [¿Son el futuro? O ¿Una sombra del presente?]	10:00 - 12:00 a.m.	Undergraduate Presentation	Cardenas Alfaro, Erika	Foreign Languages	Bernales Albites, Enrique					
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		Sp	ruce C			
			Robirds, Anastasia; Shelton, Preston; Kriescher, Dylan; Sprague, Rachel; Canfield, Lillian; North, Maddison; Shrake, Mackenzie; Smith,			
Real-time assessment of marijuana use in the college environment: Preliminary findings	11:00 - 12:00 a.m.	Undergraduate Presentation	Megan; Pellegrino, Alexa;	Povobology	Phillips, Michael	
conege environment. Freinminary findings	11.00 - 12.00 a.m.	riesenduon	Heronema, Kaili	Psychology	Fillips, Michael	

#### LUNCH BREAK Noon - 1:00 PM

	ORAL PRESENTATIONS								
	Session #4 1	l:00 PM - 1:45 PI	M (presenters check-in at 12:4	5PM)					
		As	spen A						
Revisiting the Anti-Japanese Songs During the Second Sino-Japanese War and Reflection on its Effect in Modern Society in China	1:00 - 1:15 p.m.	Graduate Presentation	Zhang, Ye	Music	Yamprai, Jittapim				
A Cry of Freedom in Chinese Rock Music	1:15 - 1:30 p.m.	Graduate Presentation	Tian, Siyu	Music	Yamprai, Jittapim				
Post-Ottoman Musical Influences in Jazz since the 1950s and Armenian Jazz Bands in New York City since 1975	1:30 - 1:45 p.m.	Graduate Presentation	Suwannakit, Sopon	Music	Suwannakit, Sopon				
		As	spen C						
Resistance exercise and doxorubicin treatment: Effects on antioxidant enzyme expression in type II muscle	1:00 - 1:30 p.m.	Graduate Presentation	Sharif, Salaheddin	Sport & Exercise	Sharif, Salaheddin				
Exploring Language Construction and the Meaning of "Success" in Cognitive Behavior Theory and Shamanic Therapeutic Mechanism recovery settings	1:30 - 1:45 p.m.	Graduate Presentation	Pulling, Ashleigh	Sociology	Newman, Harmony				

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
		Colu	mbine A			
Curcumin: Whole Foods Contain Bioactive Compounds that may Reduce Symptoms of Enteral Tube Feeding Intolerance and Cachexia in Patients with Head and Neck Cancer	1:00 - 1:15 p.m.	Graduate Presentation	Barnhart, Shelley	Nutrition & Dietetics	Gould, Susan	
Preventing Type 2 Diabetes in Rural Colorado Communitites	1:15 - 1:30 p.m.	Graduate Presentation	Abdelsalam, Yasmin	Nutrition & Dietetics	Gould, Susan	
Effect of Motivational Interviewing on Type 2 Diabetes Self-Management Clinical Outcomes	1:30 - 1:45 p.m.	Graduate Presentation	Schmidt, Kristin	Nutrition & Dietetics	Gould, Susan	
	RESEARCH EX	CELLENCE AWA	RD PRESENTATIONS: Columb	oine B		
An Analysis of MyPlate Food Group Intake in Children with an Autism Spectrum Disorder	1:00 - 1:15 p.m.	Graduate Presentation	Hsueh, Esther	Nutrition & Dietetics	Withrow, Nicole	Research Excellence Award Finalist
Achieving Stable Symmetry Indices of Walking Mechanics	1:15 - 1:30 p.m.	Graduate Presentation	Murphy, Shane; Muller, Haley	Sport & Exercise	Smith, Jeremy	Research Excellence Award Finalist
Impacts of Spruce Beetle Disturbance on Macrolichen Communities in Northwestern Colorado	1:30 - 1:45 p.m.	Graduate Presentation	Freundlich, Anna	Biological Sciences	Holt, Emily	Research Excellence Award Finalist
		Sp	ruce A			
Exploring the Influence of School-Based Sexuality Education Settings on LGBTQ+ Sexual Identity Development	1:00 - 1:15 p.m.	Graduate Presentation	Guyer, Lauren	Sociology	Newman, Harmony	
Evaluating Effective Supervision Strategies of the Colorado Pretrial Risk Assessment	1:15 - 1:30 p.m.	Graduate Presentation	Azari, Anthony	Criminal Justice	Ward, Kyle	
Global Owl Project - Conservation GIS	1:30 - 1:45 p.m.	Undergraduate Presentation	Ingalls, Jaymie	Environment & Sustainability	Romulo, Chelsie	
		Sp	ruce B		T	•
The History of Pi	1:00 - 1:15 p.m.	Undergraduate Presentation	Noble, Lauren	Education	Levin, Oscar	
The Development of Mathematics throughout History	1:15 - 1:30 p.m.	Undergraduate Presentation	Gurney, Acadia	Mathematics	Levin, Oscar	
The Mathematics of Music Theory	1:30 - 1:45 p.m.	Undergraduate Presentation	Haines, Luna	Mathematics	Levin, Oscar	

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Spruce C								
South Korea's Education and it's Students	1:00 - 1:15 p.m.	Undergraduate Presentation	Rodriguez, Bianca	Asian Studies	Low, Michelle			
Sincerity and Pop Performance in Jun Togawa's Suki Suki Daisuki	1:15 - 1:30 p.m.	Undergraduate Presentation	Bibbey, Tyler	Asian Studies	Holman, Donald			
China's Work to Return to Supremacy	1:30 - 1:45 p.m.	Undergraduate Presentation	Nieft, Katie	Asian Studies	Low, Michelle			
		ORAL PRE	ESENTATIONS					
Session #5 2:00 PM	/I - 2:45 PM (present	ers check-in at	1:45PM) *Begins at 1:45 as	continuation of previ	ous hour			
		As	pen A					
François-Joseph Gossec's 1790 Te Deum and the Political Ideals of the Early French Revolution*	1:45 - 2:15 p.m.	Graduate Presentation	Gassner, Robert	Music	Bellman, Jonathan			
Stephen Heller Composes Jean Paul: The Blumen-, Frucht-, und Dornenstücke, Op. 82	2:15 - 2:45 p.m.	Graduate Presentation	Alexander, Nicholas	Music	Bellman, Jonathan			
		Aspen C (Round	Itable Presentation)					
I identify as tired: Autoethnography as professional development for graduate students	2:00 - 2:45 p.m.	Graduate Presentation	Kimm, Abigail; Geiman, Jennifer	Counseling				
		Colu	mbine A					
Advanced Nutrition Presentation – Sugar and Alzheimer's Disease	2:00 - 2:15 p.m.	Undergraduate Presentation	Brunner, Leah; Roca, Reis; Donovan, Shannon	Nutrition & Dietetics	Gerweck, Catherine			
Advanced Nutrition Presentation – Breast Milk and Allergies	2:15 - 2:30 p.m.	Undergraduate Presentation	Martinez, Dominique; Condos, Marissa; Mbise, Margaret	Nutrition & Dietetics	Gerweck, Catherine			
	RESEARCH EXC	CELLENCE AWA	RD PRESENTATIONS: Columb	oine B				
Understanding undergraduates' informal learning experiences at a regional zoo	2:00 - 2:15 p.m.	Graduate Presentation	Heim, Ashley	Biological Sciences	Holt, Emily	Research Excellence Award Finalist		
Scrub Envy: Investigating Sources of Self- efficacy and Identity in Anatomy and Physiology Students	2:15 - 2:30 p.m.	Graduate Presentation	Royse, Emily	Biological Sciences	Holt, Emily	Research Excellence Award Finalist		
Wage dispersion and team performance: An investigation of the National Basketball Association	2:30 - 2:45 p.m.	Graduate Presentation	Fowler, Brian	Sport & Exercise	Morse, Alan	Research Excellence Award Finalist		

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation		
Spruce A								
The Effect of Assistive Technologies on Special Educators: Role of Special Educators in the use of Assistive Technology in an Inclusive setting in India	2:00 - 2:30 p.m.	Graduate Presentation	Ghosh, Ekta	Education		Community Engaged Scholar		
Exploring the Accuracy of the Contrastive Analysis Hypothesis in Learning Chinese as a Second Language	2:30 - 2:45 p.m.	Undergraduate Presentation	Fu, Qidu	Foreign Languages	Del Carpio Ovando, Karla	Community Engaged Scholar		
		Sp	ruce B					
Mathematics Content Knowledge Preparedness of Secondary Preservice Teachers	2:00 - 2:30 p.m.	Graduate Presentation	Krieschel, Jenna; Bentz, Lida	Education	Powers, Robert			
		Sp	ruce C			_		
Embracing Lynching History: Using XXXTENTACION's "Look At Me!" Music Video to Engage with a Clouded and Omitted Lynching History	2:00 - 2:15 p.m.	Undergraduate Presentation	Hernandez, Timothy	Africana Studies	Boyce, Travis	McNair Scholar		
The Unspoken Nature of Lynching	2:15 - 2:45 p.m.	Undergraduate Presentation	Ogunmodede, Oluwatobi	Africana Studies	Boyce, Travis			
		ORAL PRE	SENTATIONS					
	Session #6	3:00 PM - 3:45 P	M (presenters check-in at 2:45	PM)				
		As	pen A					
Alive or Dead, Were They Well-Dressed? Clothing and Identity in Golden Age British Detective Fiction	3:00 - 3:15 p.m.	Graduate Presentation	Hammer, Rachel	English	Cornish, Sarah			
The Significance of Uniforms and Clothing Within Game of Thrones	3:15 - 3:30 p.m.	Undergraduate Presentation	Evans, Grayson	English	Bovaird-Abbo, Kristin			

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
		Sp	ruce A			
How do Community Health Centers Serve the Needs of Northern Coloradans? Reflections and Findings from Project HealthViews	3:00 - 4:00 p.m.	Undergraduate Presentation	Becker, Monique; Berenson, Caitlyn; Grajeda Guevara, Irasema; Green, Kiana; Greenberg, Samuel; Guzman, Kimberly; Hoang, Vivian; Jaeger, Natalie; Liddle, Hayley; Limeneh, Kalkidan; Maya, Eduardo; Molz, Courtney; Ringus, Benjamin; Robbins, Bonnie; Schwartz, Theresa; Stier, Cheyenne; Styers, Madlyn	Anthropology	Duncan Johnson, Whitney	Community Engaged Scholar
		Sp	ruce B			
Best Strategies for Promoting Pro- Environmental Behavior	3:00 - 3:15 p.m.	Undergraduate Presentation	Jensen, Ava	Interdisciplinary Studies	Matchett, Nancy	
The Lives of Aryaus Sand and Jesper Vespin	3:15 - 3:45 p.m.	Undergraduate Presentation	Davis, Jesse; Ricardo, August	Theatre Arts	Bovaird-Abbo, Kristin	
		Sp	ruce C		1	
Identity Based Education: Empowering Diversity, Educating All	3:00 - 3:30 p.m.	Undergraduate Presentation	Hernandez, Timothy	Education	Kraver, Jeraldine	McNair Scholar
Expanding Diversity: How We Engage Students With Texts That Authentically Prepare Them for the Diverse World	3:30 - 3:45 p.m.	Undergraduate Presentation	Hernandez, Timothy RD PRESENTATIONS: Columb	Education	Kraver, Jeraldine	McNair Scholar
	RESEARCH EX	I	ND FRESENTATIONS, COIUMIL	nile B	ı	I
Is Contemporary Music a Solution?: A New Strategy in Cultural Conservation of Traditional Music in The Mainland of Southeast Asia	3:00 - 3:15 p.m.	Graduate Presentation	Patarateeranon, Tachinee	Music	Yamprai, Jittapim	Research Excellence Award Finalist
A Sip of "Lemonade": A Critical Analysis of Beyoncé's Lemonade Album Through the Lens of BlackLivesMatter	3:15 - 3:30 p.m.	Graduate Presentation	Bryant, Melonie	Music	Yamprai, Jittapim	Research Excellence Award Finalist
1948 Accra Riots: Impact on Kwame Nkrumah and the formation of the Convention People's Party	3:30 - 3:45 p.m.	Graduate Presentation	Malley, Trevor	History	Weis, Robert	Research Excellence Award Finalist

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation			
	SCHOOL	. OF BIOLOGY G	RADUATE PRESENTATIONS						
Longs Peak Ballroom									
Biology Session #1 8:30 - 10:05am									
Assessing the Influences of Habitat Structure on Bird Song Propagation	8:30 - 8:45 a.m.	Graduate Presentation	Hardt, Braelei	Biological Sciences	Benedict, Lauryn				
Cell line specific cytotoxicity in Argentine Racer and the Sonoran Lyre Snake venoms	8:45 - 9:00 a.m.	Graduate Presentation	Harvey, Tanner	Biological Sciences	Mackessy, Stephen				
Course-Based Undergraduate Research Experiences and the Development of Science Identity	9:00 - 9:10 a.m.	Graduate Presentation	Buchanan, Alaina	Biological Sciences	Fisher, Ginger				
Merlin and Expanded regulate proliferation in the somatic cyst stem cells of the Drosophila testis niche	9:10 - 9:25 a.m.	Graduate Presentation	Johnson, Bryan	Biological Sciences	Leatherman, Judith				
The effects of a CRISPR/Cas9 IL-6 knock out in 4T1 mammary carcinoma cells on myeloid derived suppressor cells (MDSCs) and Th17/Th22 cells	9:25 - 9:35 a.m.	Graduate Presentation	Rase, Viva	Biological Sciences	Haughian, James				
Where Are Students Learning About Climate Change Concepts?	9:35 - 9:50 a.m.	Graduate Presentation	Romano, Alicia	Biological Sciences	Holt, Emily				
Reconsidering Diet: Limited Facultative Omnivory and Cannibalism in Ctenosaura similis, the Spiny-Tailed Iguana	9:50 - 10:05 a.m.	Graduate Presentation	Nash, Ann-Elizabeth	Biological Sciences	Mackessy, Stephen				
		Break - 10	:05 - 10:20am						
	E	Biology Session	#2 10:20 - 11:50am						
Elucidating the Susceptibility and Type I IFN Response in Primary Cell Lines to Zika Virus	10:20 - 10:35 a.m.	Graduate Presentation	Petty, Douglas	Biological Sciences	Hawkinson, Ann				
A food-web analysis approach to quantify bat activity patterns in mountain pine beetle (Dendroctonus ponderosae) affected forests of the Front Range of Colorado	10:35 - 10:45 a.m.	Graduate Presentation	Bevan, Amanda	Biological Sciences	Adams, Rick				
Cheating the system: Plant growth hormone involved in aphid hijacking of mycorrhiza induced resistance	10:45 - 11:00 a.m.	Graduate Presentation	Olson, Drew	Biological Sciences	Gomez, Susana				
Does population density affect female singing behavior and breeding ecology of canyon wrens (Catherpes mexicanus)?	11:00 - 11:10 a.m.	Graduate Presentation	Dargis, Lorraine	Biological Sciences	Benedict, Lauryn				

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Transforming Growth Factor Beta-1 - Implications on Mast Cells, Their Memory, and Their Importance in Cancer	11:10 - 11:25 a.m.	Graduate Presentation	Lyons, David	Biological Sciences	Pullen, Nicholas	
Physiological venom resistance of Colorado rodents to rattlesnake venoms	11:25 - 11:35 a.m.	Graduate Presentation	Balchan, Neil; Mackessy, Stephen	Biological Sciences	Mackessy, Stephen	
Taking a Step Back: Investigating Flaviviral Disease Using a Unique Model System	11:35 - 11:50 a.m.	Graduate Presentation	Sherman, Tyler	Biological Sciences	Hawkinson, Ann	
		LUNCH BREA	K 11:50 - 12:45 PM			
		Biology Session	#3 12:45 - 2:05pm			
Berberine as a potential therapy for mitigating subclinical rheumatoid arthritis pathology	12:45 - 1:00 p.m.	Graduate Presentation	Vita, Alexandra	Biological Sciences	Pullen, Nicholas	
Rac and the Creepy Crawlers of the Eye	1:00 - 1:10 p.m.	Graduate Presentation	Murry, Zvi	Biological Sciences	James, Andrea	
Local Seeds, Less Problems?: An Analysis of the Genetic and Ecological Variability within Seeds Used for Restoration	1:10 - 1:25 p.m.	Graduate Presentation	Schumacher, Emily	Biological Sciences	McGlaughlin, Mitchell	
Characterization of the Mediodorsal Thalamic Input to Layer V Pyramidal Cells of the Mouse Medial Prefrontal Cortex in Vitro	1:25 - 1:40 p.m.	Graduate Presentation	Mohamed, Nesrien	Biological Sciences	Thomas, Mark	
Effect of Fish Oil Supplementation on Progesterone Synthesis in the Bovine Following Intrauterine Infusion of PGF2a	1:40 - 1:50 p.m.	Graduate Presentation	Krum, Brian	Biological Sciences	Burns, Patrick	Research Excellence Award Finalist
The effects of urban landscape characteristics on avian diversity and abundance in Weld County, Colorado	1:50 - 2:05 p.m.	Graduate Presentation	Sanchez, Karina	Biological Sciences	Benedict, Lauryn	
	_	Break - 2 Biology Session	1:05 - 2:20pm 1 #4	_	_	
Characterization of RNA and protein expression in Layer V pyramidal cell subtypes in the developing mouse medial prefrontal cortex	2:20 - 2:35 p.m.	Graduate Presentation	Christensen, Rebekah	Biological Sciences	Thomas, Mark	
Differences between Douglas-fir and lodgepole pine defense mechanisms following bark beetle attack	2:35 - 2:45 p.m.	Graduate Presentation	Walker, Robert	Biological Sciences	Franklin, Scott	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Aryl hydrocarbon receptor activation does not alter the number of myeloid-derived suppressor cells in cholera toxin-immunized mice	2:45 - 3:00 p.m.	Graduate Presentation	King, Aspen	Biological Sciences	DeKrey, Gregory	
Snakes on a Plain: Biochemical Ecology and Venom Variation in America's Most Wide- Ranging Rattlesnake (Crotalus viridis)	3:00 - 3:15 p.m.	Graduate Presentation	Smith, Cara	Biological Sciences	Mackessy, Stephen	
The function of the BMP pathway cofactor Schnurri in the Cyst Stem Cells of the D. melanogaster testis niche	3:15 - 3:30 p.m.	Graduate Presentation	Koretko, Jade	Biological Sciences	Leatherman, Judith	
		POSTER SESSI	ON 1: 10 A.M Noon			
		GRADUATE F	PRESENTATIONS			
		Mt Evans and P	ike Peak Ballrooms			
Should You Respect Cultures or Ethics?	10:00 - 12:00 a.m.	Graduate Presentation	Aljobaily, Hend	Applied Statistics & Research Methods	Lahman, Maria	
Comparing the Performance of ESL and English-Native Speaking Students in an Introductory Level Statistics Course	10:00 - 12:00 a.m.	Graduate Presentation	Aljobaily, Hend; Brown, Austin; Whitehead, Bryce; Wagya, Kofi	Applied Statistics & Research Methods	Merchant, William	Research Excellence Award Finalist
Measuring Gentrification: A Data Driven Approach	10:00 - 12:00 a.m.	Graduate Presentation	Aljobaily, Hend; Oduro, Michael; Wagya, Kofi; Stier, Steven	Applied Statistics & Research Methods	Yu, Han	
Effects of Mixture Distributions on Phase I and Phase II Performance of Shewhart Style Control Charts	10:00 - 12:00 a.m.	Graduate Presentation	Brown, Austin; Whitehead, Bryce	Applied Statistics & Research Methods	Brown, Austin	
Longitudinal Logistic Analysis of Rare Events with Time-Dependent Covariates: Application to Marijuana-Alcohol Co-Use	10:00 - 12:00 a.m.	Graduate Presentation	Werdel, Justin	ASRM	Lalonde, Trent	
The Participation of Conscientious Objectors in Biological Warfare Research: A Family Narrative	10:00 - 12:00 a.m.	Graduate Presentation	De Oliveira, Becky	ASRM	Lahman, Maria	
Patient Engagement in Speech Pathology	10:00 - 12:00 a.m.	Graduate Presentation	Steckelberg, Alexa	Audiology & speech- language	Hanks, Julie	
Disruptions to circadian core clock genes may enhance liver fibrosis in mice fed with a high-fat diet	10:00 - 12:00 a.m.	Graduate Presentation	Wu, Tsung-Yen; Aljobaily, Nouf; Weaver, Olyvia	Biological Sciences	Han, Yuyan	Research Excellence Award Finalist, Community Engaged Scholar

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Child Suicide in Colorado: A Growing Concern	10:00 - 12:00 a.m.	Graduate Presentation	Kershaw, Sean; Gorman, McKayla; Simonson, Adam	Counseling	Wright, Stephen	
Substance Addiction: The relationship to becoming a sexual predator	10:00 - 12:00 a.m.	Graduate Presentation	Garcia, Elizabeth; Munoz, Sarah	Counseling	Wright, Stephen	
Adverse Childhood Experiences and Outcomes on Adult Physical and Mental Health	10:00 - 12:00 a.m.	Graduate Presentation	Barthelemy, Kady; Moore, Marissa; Wagya, Kofi	Counseling	Wright, Stephen	Research Excellence Award Finalist
Legal and Ethical Considerations for Hospitalizing Suicidal Youth	10:00 - 12:00 a.m.	Graduate Presentation	Burrow, Nate	Counseling		
The Olweus Bullying Prevention Program in the United States: An Updated Systematic Review	10:00 - 12:00 a.m.	Graduate Presentation	Slepicka, Jessie	Criminal Justice	Ward, Kyle	Research Excellence Award Finalist
The Role of Genetic Counseling in Patients with a Family History of Inflammatory Bowel Disease	10:00 - 12:00 a.m.	Graduate Presentation	Warren, Julie	Nursing	Romero, Michaela	
Cost analysis of a critical care ground transport team	10:00 - 12:00 a.m.	Graduate Presentation	Clark, Gregory	Nursing	Aldridge, Michael	
Assessing the Use of Music Intervention for Pain Control in the Post Anesthesia Care Unit	10:00 - 12:00 a.m.	Graduate Presentation	Martin, Sam	Nursing	Patterson, Marcia	
Nutrition and Weight Status of WIC and non- WIC participants during eligibility and after eligibility terminates after 5 years of age: A review	10:00 - 12:00 a.m.	Graduate Presentation	O'Neill, Emily	Nutrition & Dietetics	Withrow, Nicole	
Assessing the Impact of Community Engagement in a Summer Athletic Bridge Program	10:00 - 12:00 a.m.	Graduate Presentation	Lafferty, Mel; Tackett, Brandy	Social Science		Research Excellence Award Finalist, Community Engaged Scholar
Lactate Response During Acute Exercise in Cancer Survivors Undergoing Exercise Rehabilitation	10:00 - 12:00 a.m.	Graduate Presentation	Harman, Nicholas	Sport & Exercise	Hayward, Reid	
Exercise Reduces Proportions of Tumor Resident Myeloid-Derived Suppressor Cells	10:00 - 12:00 a.m.	Graduate Presentation	Garritson, Jacob	Sport & Exercise	Garritson, Jacob	Research Excellence Award Finalist
Chronic Cannabis Use and Circulating Bio- Markers of Neural Health, Stress, and Inflammation in Physically Active Individuals	10:00 - 12:00 a.m.	Graduate Presentation	Lisano, Jonathon	Sport & Exercise	Stewart, Laura	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation			
Effects of Two Creatine Monohydrate Feeding Protocols on Doxorubicin-Induced Skeletal Muscle Dysfunction	10:00 - 12:00 a.m.	Graduate Presentation	Torok, Zoltan	Sport & Exercise	Hydock, David	Research Excellence Award Finalist			
Cancer Survivor Muscular Strength Comparison to Apparently Healthy Population Normative Data	10:00 - 12:00 a.m.	Graduate Presentation	Krynski, Luke	Sport & Exercise	Krynski, Luke	Research Excellence Award Finalist			
Effects of the Anticancer Drug Doxorubicin and Dietary Creatine Supplementation on Myogenic Regulatory Factor Expression	10:00 - 12:00 a.m.	Graduate Presentation	Busekrus, Raquel	Sport & Exercise	Hydock, David				
Assessment of Concussion Recovery Using A Dynamic Stability Task	10:00 - 12:00 a.m.	Graduate Presentation	Buchholz, Kurt	Sport & Exercise	Heise, Gary				
The relationship of basic psychological need satisfaction and before school physical activity in a Children's Mileage Club	10:00 - 12:00 a.m.	Graduate Presentation	Chavarria Soto, Maria del Mar; Wittenberg, Megan	Sport & Exercise	Stellino, Megan	Research Excellence Award Finalist			
POSTER SESSION 1: 10 A.M Noon									
UNDERGRADUATE PRESENTATIONS									
		Mt Evans and P	ike Peak Ballrooms			•			
World Clothing & House Stark	10:00 - 12:00 a.m.	Undergraduate Presentation	Archuleta, Landon	Art & Design	Bovaird-Abbo, Kristin				
Teaching Math Vocabulary Through Storybooks	10:00 - 12:00 a.m.	Undergraduate Presentation	Volzke, Claire	Audiology & speech- language	Hanks, Julie	Honors			
Drug Dilemmas	10:00 - 12:00 a.m.	Undergraduate Presentation	Rogers, Kayla; De Leonardis, Dante; Dabney, William; Shaffer, Eric	Business	Krahnke, Keiko				
Enzymatic Ring-Opening Polymerization in a Custom-Designed Sulfonium Ionic Liquid	10:00 - 12:00 a.m.	Undergraduate Presentation	Jindarat, Chanida	Chemistry	Zhao, Hua				
Initiating a New Perspective: The Prevalence, Perceptions, & Attitudes of Hazing Across Student Organizations	10:00 - 12:00 a.m.	Undergraduate Presentation	Fuselier, Jordan	Criminal Justice	Evans, Mary	McNair Scholar			
Dark Secrets from Behind the Cell Bars: A Critical Analysis Into Post-Prison Rehabilitation, Prison Rape Culture, and the Unethical Profit of Inmate Administrationc	10:00 - 12:00 a.m.	Undergraduate Presentation	Herrera Marquez, Rachel	Criminal Justice	Mitchell, Cynthia				
Ethics in the Economy: An Analysis of Prevalent Correlations	10:00 - 12:00 a.m.	Undergraduate Presentation	Chavez, Ryan	Economics	Corman, Rhonda				
Why is the education system not educating us?	10:00 - 12:00 a.m.	Undergraduate Presentation	Kritzinger, Michael	Economics	Corman, Rhonda				

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Budding Cities: Rising Food Production from Urban Gardening	10:00 - 12:00 a.m.	Undergraduate Presentation	Skinner, Olivia	Economics	Corman, Rhonda	
Why tuition is increasing and is there a demand for students to go to school?	10:00 - 12:00 a.m.	Undergraduate Presentation	Rodriquez, Jordan	Economics	Corman, Rhonda	
Salary Justification Throughout the National Hockey League	10:00 - 12:00 a.m.	Undergraduate Presentation	Weber, Tyler	Economics	Corman, Rhonda	
Legalizing Illicit Drugs: Analyzing the Legalization of Marijuana	10:00 - 12:00 a.m.	Undergraduate Presentation	Aberbook, Andrew	Economics	Corman, Rhonda	
Financial Literacy: Income Inequality Amongst Race and Demographics	10:00 - 12:00 a.m.	Undergraduate Presentation	Coker, Kristopher	Economics	Corman, Rhonda	
Gentrification in Urban Areas	10:00 - 12:00 a.m.	Undergraduate Presentation	Grado, Zachary	Economics	Corman, Rhonda	
Determinants of BMI	10:00 - 12:00 a.m.	Undergraduate Presentation	Mistrot, Henry	Economics	Corman, Rhonda	
Economic Phenomenon: Obesity	10:00 - 12:00 a.m.	Undergraduate Presentation	Bodenhorn, Chase	Economics	Corman, Rhonda	
Determinates of Donation sizes	10:00 - 12:00 a.m.	Undergraduate Presentation	Douglas, Peter	Economics	Corman, Rhonda	Community Engaged Scholar
The Underlying Issues from Labor Market Discrimination	10:00 - 12:00 a.m.	Undergraduate Presentation	Leal, Romario	Economics	Corman, Rhonda	
First-Generation Students: The Power of Parent Relationships	10:00 - 12:00 a.m.	Undergraduate Presentation	De La O Ojeda, Maribel	Education	Mitchell, Cynthia	
Valar Morghulis: How the Funeral Practices & Burial Practices of History inspired A Song of Ice & Fire & Game of Thrones	10:00 - 12:00 a.m.	Undergraduate Presentation	Ruck, Augustus	English	Bovaird-Abbo, Kristin	Community Engaged Scholar
The Differences in Editions In J.R.R. Tolkien's Lord of the Rings	10:00 - 12:00 a.m.	Undergraduate Presentation	Hayes, Ethan	English	Bovaird-Abbo, Kristin	
Dragons in Pop Culture: How Daenerys Stormborn has impacted Artistic Fans and Society	10:00 - 12:00 a.m.	Undergraduate Presentation	Kelly, Sophia	English	Bovaird-Abbo, Kristin	Honors
Leather book binding: Why, where and how?	10:00 - 12:00 a.m.	Undergraduate Presentation	Archuleta, Landon	English	Bovaird-Abbo, Kristin	
Religion in Game of Thrones: Perspective on Religious Government & Societal Conflict	10:00 - 12:00 a.m.	Undergraduate Presentation	Johnson, Davis	English	Bovaird-Abbo, Kristin	
Forgeries Impact on Manuscripts	10:00 - 12:00 a.m.	Undergraduate Presentation	Broome, Jessica	English	Bovaird-Abbo, Kristin	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Bookbinding: An Important Aspect to the History of the Book	10:00 - 12:00 a.m.	Undergraduate Presentation	Jeude, Katrina	English	Bovaird-Abbo, Kristin	
Scribes: Unsung Heroes of the Middle Ages	10:00 - 12:00 a.m.	Undergraduate Presentation	Keihl, Mikal	English	Bovaird-Abbo, Kristin	
An Analysis of a Bold Character, Tyrion Lannister, through the exploration of Journal Teaching Strategies	10:00 - 12:00 a.m.	Undergraduate Presentation	Pyell-Campbell, Jennifer	English	Bovaird-Abbo, Kristin	
Brienne of Tarth: Truth or Trope	10:00 - 12:00 a.m.	Undergraduate Presentation	Walker, Brandon	English	Bovaird-Abbo, Kristin	
Based on a True Story: The Portrayal of Women in Popular Medieval Fiction	10:00 - 12:00 a.m.	Undergraduate Presentation	Rohrer, Kenlie	English	Bovaird-Abbo, Kristin	
Looking Forward, Looking Backward, Looking Through: Postmodern Book Experimentation	10:00 - 12:00 a.m.	Undergraduate Presentation	Duggan, Luke	English	Bovaird-Abbo, Kristin	
Identifying and Modeling River Channel Change with Remote Sensing	10:00 - 12:00 a.m.	Undergraduate Presentation	Rogerson, Joshua	Geography	Salo, Jessica	
Quantifying Historic Channel Change/Migration	10:00 - 12:00 a.m.	Undergraduate Presentation	Haas, Stephen	Geography	Salo, Jessica	
A Literary Analysis of the Aftercare of Children involved in Sex Trafficking	10:00 - 12:00 a.m.	Undergraduate Presentation	DeLuna, Nora	Human Services	Mitchell, Cynthia	
Greeley Multicultural Festival: College Corner	10:00 - 12:00 a.m.	Undergraduate Presentation	Avalos, Abigail	Interdisciplinary Studies	Crow, Loree	Honors, Community Engaged Scholar
Global Change Campaign Sex Trafficking Awareness	10:00 - 12:00 a.m.	Undergraduate Presentation	Jenkins, Matthew; Howard, Tanner; Trujillo, Rachel; Atkins, Hanna; Martin, William; Chea, Dieudonne	Leadership Studies	Ortis, Liane	
Northern Colorado Mental Health and Veterans	10:00 - 12:00 a.m.	Undergraduate Presentation	Bahena, Cinthia; Montoya, Anthony; Dowell, Colby; Kramer, Katelyn; Van Wyhe, Marissa; Elias, Brandon	Leadership Studies	Ortis, Liane	
The Hunger Games: Food Insecurity in America	10:00 - 12:00 a.m.	Undergraduate Presentation	Gibson, Mallory; Avalos, Abigail; Kosinski, Tristan; Mojica, Arianna	Leadership Studies	Ortis, Liane	
Soundtrack to The World of Game of Thrones	10:00 - 12:00 a.m.	Undergraduate Presentation	Ross, Rachel	Music	Bovaird-Abbo, Kristin	
Me, Myself and I: Individualism and Society	10:00 - 12:00 a.m.	Undergraduate Presentation	Lopez Hernandez, Gisselle	Political Science	Mitchell, Cynthia	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Perceived effectiveness of active music therapy for Alzheimer's language deficits	10:00 - 12:00 a.m.	Undergraduate Presentation	Reed, Alana	Psychology	Ross, Rosann	Honors
Pre-test Processing Differences of Test Anxious Students	10:00 - 12:00 a.m.	Undergraduate Presentation	Garcia, Michelle	Psychology	Allen, Michael	Honors
Female Friendships Developing Strong Female Leaders	10:00 - 12:00 a.m.	Undergraduate Presentation	Snell, Ashley	Psychology	Bovaird-Abbo, Kristin	Honors
The prejudices of redlining	10:00 - 12:00 a.m.	Undergraduate Presentation	Diawara, Fatoumata	Sociology	Mitchell, Cynthia	
		POSTER SESSI	ON 2: 1 P.M 3 P.M.			
		GRADUATE F	PRESENTATIONS			
		Mt Evans and P	ike Peak Ballrooms	1	•	
"Missing Data in Longitudinal Studies, how much data can be missing for our research to be relevant?"	1:00 - 3:00 p.m.	Graduate Presentation	Haskowitz, Yael	Applied Statistics & Research Methods		
Abandoning Deficit Models of Teachers: A Step Towards Relational Ethics in Mathematics Teacher Education Research	1:00 - 3:00 p.m.	Graduate Presentation	Morgan, Michelle	ASRM	Lahman, Maria	
Extended High-Frequency Automated Békésy Audiometry	1:00 - 3:00 p.m.	Graduate Presentation	Ranshaw, Katie	Audiology & speech- language		
Combining Electroanalytical Tools and Molecular-Based Assays to Understand the Impact of Environmental Contaminants on the Dopamine System	1:00 - 3:00 p.m.	Graduate Presentation	Reiser, Kristofer; Wilson, Patrick	Chemistry	Apawu, Aaron	
Exploring Substance Use as a Form of Deliberate Self-Harm	1:00 - 3:00 p.m.	Graduate Presentation	May, Mackenzie; Cople, Sydney	Counseling	Wright, Stephen	
Parenting Competency Model	1:00 - 3:00 p.m.	Graduate Presentation	Turner, Susannah	Counseling		
Validation of Sustainability Culture Instruments	1:00 - 3:00 p.m.	Graduate Presentation	Rockwell, Angela	Environment & Sustainability	Paek, Suehyeon	
Provider Comfort Level Caring for Transgender Individuals	1:00 - 3:00 p.m.	Graduate Presentation	Fendley, Robbie	Nursing	Deters, Julie	
Assessing Disaster Preparedness in the Community in St. Kitts and Nevis: An Interprofessional Mixed Methods Approach	1:00 - 3:00 p.m.	Graduate Presentation	Hijmans, Kyler; Matthew, Stephanie; Hood, Tiffany; Gaul, Raiden; Leahy, Nancy	Nursing	Snyder, Audrey	
Screening Adolescents for Depression in Primary Care	1:00 - 3:00 p.m.	Graduate Presentation	DiFerdinando, Colleen	Nursing	Romero, Michaela	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
An Ethical Consideration of Interjurisdictional Televideoconferencing and its Relation to Client Termination and Abandonment	1:00 - 3:00 p.m.	Graduate Presentation	Martell, Jordan	Psychology	Wright, Stephen	
The Influence of Footwear on Loading Rate and Joint Kinematics during Walking	1:00 - 3:00 p.m.	Graduate Presentation	Boncella, Katie	Sport & Exercise	Heise, Gary	
		POSTER SESSI	ON 2: 1 P.M 3 P.M.			
	ι	JNDERGRADUA	TE PRESENTATIONS			
		Mt Evans and P	ike Peak Ballrooms			
GIS Applied Underwater Archaeology: Mapping Artifacts Within The Roman Port of Sanisera	1:00 - 3:00 p.m.	Undergraduate Presentation	Myers, Logan	Anthropology	Zia, Ather	
Fashion in Westeros: Comparing the Novel, Television Show, and Medieval History	1:00 - 3:00 p.m.	Undergraduate Presentation	Jacobsen, Agathe	Art & Design	Bovaird-Abbo, Kristin	Honors
Effects of Fish Oil Supplementation on Corpus Luteum Function in the Bovine	1:00 - 3:00 p.m.	Undergraduate Presentation	Shelrud, Anika; Clifford, Garrett	Biological Sciences	Burns, Patrick	Research Excellence Award Finalist
Survey of Understory Vascular Plant Communities in the face of Spruce Beetle Disturbance	1:00 - 3:00 p.m.	Undergraduate Presentation	Sobczak, Julia	Biological Sciences	Holt, Emily	Honors
Relative Activity of Bats Around Natural Gas Wells in Northern Colorado	1:00 - 3:00 p.m.	Undergraduate Presentation	Horgen, Cassandra; Adams, Rick	Biological Sciences	Adams, Rick	Research Excellence Award Finalist
Local Adaptation and Its Effect on Phenotypic Plasticity of Grindelia squarrosa	1:00 - 3:00 p.m.	Undergraduate Presentation	Hawson, Kieran; Marzulla, Morgan; Thomas, Ryan	Biological Sciences	Schneider, Gwen	Research Excellence Award Finalist
Characterization of serine proteases from Prairie Rattlesnake (Crotalus viridis viridis) venom: potential medical applications	1:00 - 3:00 p.m.	Undergraduate Presentation	Lopez, Keira	Biological Sciences	Mackessy, Stephen	
An Assessment of 2,3,7,8-Tetrachlorodibenzo- p-dioxin/ Cholera-Toxin Dosing and Activating the Aryl Hydrocarbon Receptor: an Immunological Approach	1:00 - 3:00 p.m.	Undergraduate Presentation	Aspromonte, Isabella	Biological Sciences	DeKrey, Gregory	Honors
The Ethical Issues Related to Beekeeping and Honey Production	1:00 - 3:00 p.m.	Undergraduate Presentation	Aves, Becca; Short, Evan; Vathanavarin, Molly; Sullivan, John; Harmon, Spencer	Business	Krahnke, Keiko	
The use of analogies in Thailand and United States high school chemistry	1:00 - 3:00 p.m.	Undergraduate Presentation	Sangworn, Sadanun	Chemistry	Brown, Corina	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Dry Ice Separation of Duct Tape from Surfaces and Recovering Latent Fingerprints	1:00 - 3:00 p.m.	Undergraduate Presentation	Hoang, Vivian; Selman, Jazlyn	Chemistry	Pringle, David	Honors
Phosphonium-Based Ionic Liquid as 'Benign' Solvent for Enzymatic Polymerization	1:00 - 3:00 p.m.	Undergraduate Presentation	Kanpadee, Naphatsawan	Chemistry	Zhao, Hua	Research Excellence Award Finalist
Exploring how parents maintain relationships with children from behind bars: An analysis of incarcerated parents in the "Reading for a Change" Program in Colorado	1:00 - 3:00 p.m.	Undergraduate Presentation	Rascon, Nadia; Hernandez, Miriam; Tauvinkl, Olivia; Garcia, Shania; Wegen, Madison; Candelaria, Rachel	Criminal Justice	Ward, Kyle	Research Excellence Award Finalist, Community Engaged Scholar
Identifying the impact of incarceration on parenting: An examination of incarcerated parents in the "Reading for a Change" program in Colorado	1:00 - 3:00 p.m.	Undergraduate Presentation	Shrake, Mackenzie; Ross, Caitlin; Baker, Hannah; Olin, Nathan; Qualkenbush, Samantha	Criminal Justice	Ward, Kyle	Community Engaged Scholar
Perceptions of Police Self- Legitimacy in the Rocky Mountain Region of the United States	1:00 - 3:00 p.m.	Undergraduate Presentation	Olin, Nathan	Criminal Justice	Ward, Kyle	Honors
Convicting the Innocent	1:00 - 3:00 p.m.	Undergraduate Presentation	Cordova, Alyssa	Criminal Justice	Mitchell, Cynthia	
Racism in the Criminal Justice System: Why it Does Matter	1:00 - 3:00 p.m.	Undergraduate Presentation	Halterman, Justina	Criminal Justice	Mitchell, Cynthia	
Short-term Topographic Changes at the Overlook Crater Lava Lake, Kilauea Volcano, Hawaii Revealed Through Multi-temporal Terrestrial LiDAR Scanning	1:00 - 3:00 p.m.	Undergraduate Presentation	Nelson, Katie	Earth Sciences	Anderson, Steven	McNair Scholar
Economic Cash Cow: The impact of the number of cattle on the economy by state	1:00 - 3:00 p.m.	Undergraduate Presentation	Hobby, Brianna	Economics	Corman, Rhonda	
Prison Inmate Work Programs and Recidivism- An Economic Approach	1:00 - 3:00 p.m.	Undergraduate Presentation	Wann, Thomas	Economics	Corman, Rhonda	
Depreciation of Human Capital for Left-Behind Children in Rural China	1:00 - 3:00 p.m.	Undergraduate Presentation	Hoch, Nathan	Economics	Corman, Rhonda	
Gotta Catch 'Em All: The Inflation of Rewards in Video Games	1:00 - 3:00 p.m.	Undergraduate Presentation	Borah, Shane	Economics	Corman, Rhonda	
What Works: Prospect Theory in the Corporate Workplace	1:00 - 3:00 p.m.	Undergraduate Presentation	Lundebjerg, Barbara	Economics	Corman, Rhonda	Honors
Game Theory in Reality Television	1:00 - 3:00 p.m.	Undergraduate Presentation	Mayfield, Kori	Economics	Corman, Rhonda	Honors

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Funding Efforts to Control Aquatic Invasive Species: A Systematic Review with Applications	1:00 - 3:00 p.m.	Undergraduate Presentation	Slutzky, Collin	Economics	Eiswerth, Mark	Honors, McNair Scholar
Liquidity Trap: Consumer Debt in Younger Households	1:00 - 3:00 p.m.	Undergraduate Presentation	Cruz-Contreras, Nayelli	Economics	Corman, Rhonda	
Examining Monopoly Theory in the Religious Marketplace	1:00 - 3:00 p.m.	Undergraduate Presentation	Ferebee, Peyton	Economics	Corman, Rhonda	
Why Cities Experience Higher Growth Rates Than Others	1:00 - 3:00 p.m.	Undergraduate Presentation	Leinen, Addison	Economics	Corman, Rhonda	
The Effects of a Rising Minimum Wage on Employment	1:00 - 3:00 p.m.	Undergraduate Presentation	Lockette, Madeline	Economics	Corman, Rhonda	
Potential Economic Impacts of Migration caused by Climate Change	1:00 - 3:00 p.m.	Undergraduate Presentation	Rodriguez, Scott	Economics	Corman, Rhonda	
Universal Basic Income in America	1:00 - 3:00 p.m.	Undergraduate Presentation	Stelzner, William	Economics	Corman, Rhonda	
Homelessness in the United States	1:00 - 3:00 p.m.	Undergraduate Presentation	Taggart, Cameron	Economics	Corman, Rhonda	
Supporting First-Year Undeclared Student Success with UNIV-101	1:00 - 3:00 p.m.	Undergraduate Presentation	Baker, Amanda; Pickenpaugh, Emili; Yoast, Summer	Education	Vaughan, Angela	Developing Scholars Award Finalist
A Journal from Westeros	1:00 - 3:00 p.m.	Undergraduate Presentation	Gee, William	English	Bovaird-Abbo, Kristin	
Representation of disability in A Game of Thrones	1:00 - 3:00 p.m.	Undergraduate Presentation	Arndt, Cory	English	Bovaird-Abbo, Kristin	Community Engaged Scholar
Food in the World of Westeros	1:00 - 3:00 p.m.	Undergraduate Presentation	Scrivner, Shelby	English	Bovaird-Abbo, Kristin	
Blood Poems	1:00 - 3:00 p.m.	Undergraduate Presentation	Huber, Austin	English	Bovaird-Abbo, Kristin	
History of Paradise Lost	1:00 - 3:00 p.m.	Undergraduate Presentation	Huber, Austin	English	Bovaird-Abbo, Kristin	
History of John Milton's Paradise Lost	1:00 - 3:00 p.m.	Undergraduate Presentation	Fenton, Mark	English	Bovaird-Abbo, Kristin	
A Game of Thrones: Dothraki Symbolism and Influence	1:00 - 3:00 p.m.	Undergraduate Presentation	Charles, Alexandra	English	Bovaird-Abbo, Kristin	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Omens of Death: Ravens in A Game of Thrones	1:00 - 3:00 p.m.	Undergraduate Presentation	Largent-Woods, Austin	English	Bovaird-Abbo, Kristin	
Bound with Human Skin: The Sinister Side of Books	1:00 - 3:00 p.m.	Undergraduate Presentation	Harbert, Mary	English	Bovaird-Abbo, Kristin	Research Excellence Award Finalist
Vellum: Creating the Pages of the Past and Future	1:00 - 3:00 p.m.	Undergraduate Presentation	Rees, Seth	English	Bovaird-Abbo, Kristin	
The Biography of John Webster's play "The Duchess of Malfi"	1:00 - 3:00 p.m.	Undergraduate Presentation	Pringle, Caitlin	English	Bovaird-Abbo, Kristin	
A Picture's Worth: The Visual Prowess of the Graphic Novel as an platform of Literacy	1:00 - 3:00 p.m.	Undergraduate Presentation	Wilkerson, Dorian	English	Bovaird-Abbo, Kristin	
Racist publishers are the cause for the lack of Diverse Authors	1:00 - 3:00 p.m.	Undergraduate Presentation	Walker, Tajanee	English	Bovaird-Abbo, Kristin	
The Beasts of Diplomacy: Animals in the Christian Medieval Manuscripts	1:00 - 3:00 p.m.	Undergraduate Presentation	Grishina, Liudmila	English	Bovaird-Abbo, Kristin	
Are Books Really Good For Us?	1:00 - 3:00 p.m.	Undergraduate Presentation	Hunt, Holly	English	Bovaird-Abbo, Kristin	Research Excellence Award Finalist
To Be, or Not To Be: The Existentialism of Hamlet as a Literary Text	1:00 - 3:00 p.m.	Undergraduate Presentation	Wiggins, Joshua	English	Bovaird-Abbo, Kristin	Research Excellence Award Finalist, Honors
How the Woodcuts from The Divine Comedy Helped Shape 500 Years of Art	1:00 - 3:00 p.m.	Undergraduate Presentation	Wikum, Taylor	English	Bovaird-Abbo, Kristin	
Edges - A Different Way of Looking at Books	1:00 - 3:00 p.m.	Undergraduate Presentation	Charlton, Heather	English	Bovaird-Abbo, Kristin	
Calligraphy: Medieval to Modern	1:00 - 3:00 p.m.	Undergraduate Presentation	Eulenstein, Amy	English	Bovaird-Abbo, Kristin	
Viserys Targaryen, Arya Stark, and The Hound: <i>Game of Thron</i> es Characters are Suffering from PTSD and No One is Talking about It	1:00 - 3:00 p.m.	Undergraduate Presentation	Walker, Tajanee	English	Bovaird-Abbo, Kristin	
City of Greeley Tree Planting Program: Share the Shade	1:00 - 3:00 p.m.	Undergraduate Presentation	Hawkins, Erin; Neville, Sidney; Jackson, Ben	Environment & Sustainability	Romulo, Chelsie	Community Engaged Scholar

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Sustainability Curriculum for 7th Graders of Fred Tjardes School of Innovation	1:00 - 3:00 p.m.	Undergraduate Presentation	Fleming, Natalie; Trujillo, Kennedy; Steck, Macenzi	Environment & Sustainability	Romulo, Chelsie	Community Engaged Scholar
Zero Waste Plan for the Fred Tjardes School of Innovation	1:00 - 3:00 p.m.	Undergraduate Presentation	Lynch, Delia; Keefer, Haden; Lutz, Erik	Environment & Sustainability	Romulo, Chelsie	Community Engaged Scholar
Greeley Glass Recycling Outreach Program	1:00 - 3:00 p.m.	Undergraduate Presentation	Dussault, Dyani; Garten, Zachary; Stefan, Makaela	Environment & Sustainability	Romulo, Chelsie	Honors (Dussault)
Mapping glass recycling for the City of Greeley	1:00 - 3:00 p.m.	Undergraduate Presentation	Camann, Indiana; Weir, Matthew; West, Nicholas	Environment & Sustainability	Romulo, Chelsie	Community Engaged Scholar
Middle South Platte River Alliance Stakeholder Outreach Plan	1:00 - 3:00 p.m.	Undergraduate Presentation	Lahmayer-Burrola, Katara; Rapport, Anatoly; McManus, Amy	Environment & Sustainability	Romulo, Chelsie	Community Engaged Scholar
Languages are friends!	1:00 - 3:00 p.m.	Undergraduate Presentation	VanderMeer, Debra; Puchino, Samantha; Dillehay, Kimberley; Emerick, Arianna; Martinez, Symone; Wall, Madeline; Ortiz, Selene; Singer, Jordann; Shymanski, Keara; Real, Sophia	Foreign Languages	Del Carpio Ovando, Karla	
Revitalizing and promoting languages through bilingual education!	1:00 - 3:00 p.m.	Undergraduate Presentation	Viramontes, Emily; Taylor, Dillon; Blood-Smyth, Madelynne; Baylon Trejo, Liz; Arguello, Jennie; Quinteros, Elissa	Foreign Languages	Del Carpio Ovando, Karla	
Women, Power, and Rape in HBO's Game of Thrones	1:00 - 3:00 p.m.	Undergraduate Presentation	Sullivan, Alison	Gender Studies	Bovaird-Abbo, Kristin	
Ex GI Becomes Blonde Beauty: The Relationship Between Christine Jorgensen and the Press in the 1950s	1:00 - 3:00 p.m.	Undergraduate Presentation	Esparza, Giovanni	History	Clinefelter, Joan	Research Excellence Award Finalist
Medieval heraldry, the history and symbolism	1:00 - 3:00 p.m.	Undergraduate Presentation	Vaughan, Edmund	History	Bovaird-Abbo, Kristin	Honors
A Musical Comparison of Two Sisters	1:00 - 3:00 p.m.	Undergraduate Presentation	Haskins, Kathryn	Music	Bovaird-Abbo, Kristin	Developing Scholars Award Finalist, Honors
Benefits of Public School Lunch Policies that Promote Healthier Eating Habits for Students in the U.S.	1:00 - 3:00 p.m.	Undergraduate Presentation	Paredez, Mia	Nutrition & Dietetics	Mitchell, Cynthia	Developing Scholars Award Finalist

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Actual vs. Perceived Body Composition and How It Impacts Body Image in NCAA Division I College Athletes	1:00 - 3:00 p.m.	Undergraduate Presentation	Sirus, Joel; Cavuoti, Bridget	Nutrition & Dietetics	Gilis, Jeffrey	Research Excellence Award Finalist, Honors (Cavuoti)
Confusion No More: Convention Has a Moral Utility in the Moral Normative Structure	1:00 - 3:00 p.m.	Undergraduate Presentation	Rubio, Jorge	Philosophy	Ramsey, John	Research Excellence Award Finalist. McNair Scholar
The Relation of Stellar Metallicity to Properties of Hot Jupiter Exoplanets	1:00 - 3:00 p.m.	Undergraduate Presentation	Bennington, Alec	Physics	Kuehn, Charles	
Biomimicry: The Goliath Project	1:00 - 3:00 p.m.	Undergraduate Presentation	Ensley, Robert	Physics	Semak, Matthew	
Minimizing Pressure Changes within a High- altitude Balloon Payload	1:00 - 3:00 p.m.	Undergraduate Presentation	Stottlemyer, Rydell; Smith, Brian	Physics	Semak, Matthew	
Classifying Candidates for Lambda Boötis Stars	1:00 - 3:00 p.m.	Undergraduate Presentation	French, Jordan	Physics	Kuehn, Charles	
Predicting Stasis and Cladogenesis in Ecosystems	1:00 - 3:00 p.m.	Undergraduate Presentation	Fry, Jacob	Physics	Semak, Matthew	
Chaos and Randomness in an Electric Circuit	1:00 - 3:00 p.m.	Undergraduate Presentation	Avina, Juan	Physics	Semak, Matthew	
Calculating Corrections to the Equation of State for Diatomic Oxygen	1:00 - 3:00 p.m.	Undergraduate Presentation	Blair, Noah	Physics	Semak, Matthew	
Identifying and Classifying Variable Stars	1:00 - 3:00 p.m.	Undergraduate Presentation	Herrera, Daniel	Physics	Kuehn, Charles	
Imaging and Analysis of Hydrodynamic Quantum Analogs	1:00 - 3:00 p.m.	Undergraduate Presentation	Orback, Clayton	Physics	Chaloupka, Jan	Honors
The Relationship between Snapchat Use and College Students' Proclivity to Vote in the 2018 United States Midterm Elections	1:00 - 3:00 p.m.	Undergraduate Presentation	Canipe, Christopher	Political Science	Prelog, Andrew	Honors
Does Body-Scanning Meditation Impact the Ability to Experience the Rubber Hand Illusion?	1:00 - 3:00 p.m.	Undergraduate Presentation	Ananea, Danielle	Psychology	Darling, Ryan	McNair Scholar
Status vs. Stigma: Game of Thrones Character Case Studies	1:00 - 3:00 p.m.	Undergraduate Presentation	Mehrhoff, Lauren	Psychology	Bovaird-Abbo, Kristin	Honors

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Veterans and Horses: Theoretical Guidelines for a Holistic Practice	1:00 - 3:00 p.m.	Undergraduate Presentation	Edelen, Savannah	Psychology	Ross, Rosann	Honors
Effects of shooting performance on the estimated size of a basketball hoop	1:00 - 3:00 p.m.	Undergraduate Presentation	Reed, Alana; Maday, Margaret; Katona, Hunter; Ezeli, Chuk-Davis; Belzile Rolland, Gabriel	Psychology	Granrud, Carl	
Emotional Regulation: A Causational Study Assessing Social and Academic Success	1:00 - 3:00 p.m.	Undergraduate Presentation	McVicker, Devon	Psychology	Crow, Loree	Honors
Professional-Professional or Sexy- Professional: How Gender Role Beliefs, Power, and Sex Differences Influence Students' Perceptions of Office Hours	1:00 - 3:00 p.m.	Undergraduate Presentation	Borroto, Ariana	Psychology	Kole, James	Research Excellence Award Finalist, McNair Scholar
Playing games to learn genetics: Does practicing spatial reasoning through games alongside genetics instruction improve learning?	1:00 - 3:00 p.m.	Undergraduate Presentation	Garcia, Arianna	Psychology	Royse, Emily	McNair Scholar
Disaster Management of the 2013 Floods: A Participatory Study of Colorado Community Organizations	1:00 - 3:00 p.m.	Undergraduate Presentation	Michel-Fuller, Malaika	Social Science	Gilbert, Elizabeth	Research Excellence Award Finalist, Honors, McNair Scholar, Community Engaged Scholar
Gender Roles in the World of Game of Thrones	1:00 - 3:00 p.m.	Undergraduate Presentation	Fritzler, Shaelyn	Sociology	Bovaird-Abbo, Kristin	Developing Scholars Award Finalist
Examining the Impact of Sexual Assault Definitions on the Reporting Process of College Student's	1:00 - 3:00 p.m.	Undergraduate Presentation	Kunitzer, Meagan	Sociology	Beals, Rebecca	McNair Scholar
Campus Culture, Police Violence, and Racial Battle Fatigue: A Critical Race Examination of Black American College Students	1:00 - 3:00 p.m.	Undergraduate Presentation	Brown-Smith, Torrence	Sociology	Nelson, Kyle	Research Excellence Award Finalist, McNair Scholar
Determining college-aged cross-country runners' coaching cue preference between temporal, spatial, and imagery cues	1:00 - 3:00 p.m.	Undergraduate Presentation	Smith, Matthew	Sport & Exercise	Nichols, Brett	McNair Scholar
Influences That May Affect Flow Among Division I Collegiate Wrestlers	1:00 - 3:00 p.m.	Undergraduate Presentation	Salazar, Cody	Sport & Exercise	Brustad, Robert	Research Excellence Award Finalist, McNair Scholar

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation			
Moral Motivation: Examining the relationship between self-determined and controlled regulation and good and poor sport behavior	1:00 - 3:00 p.m.	Undergraduate Presentation	Hyland, Nicholas; McCarver, Zachary	Sport & Exercise	Stellino, Megan	Research Excellence Award Finalist			
BIOLOGY POSTER SESSION 3:30 PM - 4:30 PM									
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Dye Exclusion by Adult Stem Cells in Drosophila Melanogaster Testis	3:30 - 4:30 p.m.	Undergraduate Presentation	Ahmed, Mohamoud	Biological Sciences	Leatherman, Judith				
Confirming Interleukin-6 Knockout in the 4T1 Breast Cancer Cell Model	3:30 - 4:30 p.m.	Undergraduate Presentation	Aljobaily, Nouf	Biological Sciences	Haughian, James				
Identification of cadherin dynamics during choroid fissure closure in the zebrafish eye	3:30 - 4:30 p.m.	Undergraduate Presentation	Bernard, Rebecca	Biological Sciences	James, Andrea				
Investigating Viral Replication Kinetics in Primary Cell Culture Experimentally Infected with ZIKA	3:30 - 4:30 p.m.	Undergraduate Presentation	Cain, Mikaela	Biological Sciences	Hawkinson, Ann				
Gene Isolation from Pseudomonas putida for the Development of an Anticancer Drug Delivery System	3:30 - 4:30 p.m.	Undergraduate Presentation	Davenport, Jordan	Biological Sciences	Hawkinson, Ann				
Aphid Feeding Preference on Medicago Nodulation Signaling Pathway Two Mutant	3:30 - 4:30 p.m.	Undergraduate Presentation	Duong, Tri; Mickens, Mauresa; Wang, Xinrui	Biological Sciences	Gomez, Susana				
In vitro Activation of Cannabinoid Prodrugs Using Transfected HEK Cells	3:30 - 4:30 p.m.	Undergraduate Presentation	Hansen, Connor	Biological Sciences	Hawkinson, Ann				
Local Adaptation and Its Effect on Phenotypic Plasticity of Grindelia squarrosa	3:30 - 4:30 p.m.	Undergraduate Presentation	Hawson, Kieran; Marzulla, Morgan; Thomas, Ryan	Biological Sciences	Schneider, Gwen	Developing Scholars Award Finalist			
Difference in Volume of Coarse Woody Debris in Colorado Pinus Ponderosa Stands from 1994 to Present	3:30 - 4:30 p.m.	Undergraduate Presentation	Holscher, Kirsten	Biological Sciences	Franklin, Scott				
Relative Activity of Bats Around Natural Gas Wells in Northern Colorado	3:30 - 4:30 p.m.	Undergraduate Presentation	Horgen, Cassandra; Adams, Rick	Biological Sciences	Adams, Rick	Research Excellence Award Finalist			
Sagebrush Restoration in Western Colorado: An Examination of Functional Types Along an Elevation Gradient	3:30 - 4:30 p.m.	Undergraduate Presentation	Larino, Abigail	Biological Sciences	Schneider, Gwen				
Metagenomic Analysis of Viral Representatives from Freshwater Sources in Northern Colorado	3:30 - 4:30 p.m.	Undergraduate Presentation	Lempka, Jacob; Mudroch, Casey	Biological Sciences	Fisher, Ginger				

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Using Fluorescent Staining to determine N- cadherin's Localization In Choroid Fissure Development in Zebrafish	3:30 - 4:30 p.m.	Undergraduate Presentation	Marchese, Charlie	Biological Sciences	James, Andrea	
The Role of the JNK Pathway in the Cyst Stem Cells in the Testis of Drosophila melanogaster	3:30 - 4:30 p.m.	Undergraduate Presentation	Miller, Sierra; Samuelson, Kaylah	Biological Sciences	Leatherman, Judith	
The Effects of Two Root Endosymbioses and Aphid Feeding on the Plant Species Medicago trancatula	3:30 - 4:30 p.m.	Undergraduate Presentation	Mudroch, Casey; Lempka, Jacob	Biological Sciences	Gomez, Susana	
Expression of the immune defense protein S100A9 after aryl hydrocarbon receptor (AhR) activation in mice and human cells	3:30 - 4:30 p.m.	Undergraduate Presentation	Ortiz, Linda; Jones, Fred	Biological Sciences	DeKrey, Gregory	
Detecting Virus Antigen in Brainstem Tissues Using Immunofluorescence	3:30 - 4:30 p.m.	Undergraduate Presentation	Pardue, Jessica	Biological Sciences	Hawkinson, Ann	
Pressure and the Brain: Neurological Effects on Zebrafish	3:30 - 4:30 p.m.	Undergraduate Presentation	Patton, Katherine	Biological Sciences	James, Andrea	
p190RhoGAP may be required to regulate eye size in zebrafish	3:30 - 4:30 p.m.	Undergraduate Presentation	Pollart, Jessica	Biological Sciences	James, Andrea	
Remnants of Preservation Past in UNC's Zoology Museum	3:30 - 4:30 p.m.	Undergraduate Presentation	Richmond, Alexi	Biological Sciences	Benedict, Lauryn	
Does Macrophage Colony Stimulating Factor (M-CSF) play a role in recruiting pro-tumor Myeloid-derived Suppressor Cells (MDSCs) to breast cancers?	3:30 - 4:30 p.m.	Undergraduate Presentation	Rushanika, Shukuru; Rase, Viva; Pullen, Nicholas	Biological Sciences	Haughian, James	Honors (Rushanika)
Movement of Choroid Fissure Cells: An in vivo analysis investigating if these cells have a predetermined differentiation pathway prior to fusion.		Undergraduate Presentation	Selz, Brandon	Biological Sciences	James, Andrea	McNair Scholar
Effects of Fish Oil Supplementation on Corpus Luteum Function in the Bovine	3:30 - 4:30 p.m.	Undergraduate Presentation	Shelrud, Anika; Clifford, Garrett	Biological Sciences	Burns, Patrick	Research Excellence Award Finalist
In Vivo analysis of choroid fissure spatiotemporal morphogenesis during zebrafish development	3:30 - 4:30 p.m.	Undergraduate Presentation	Smothers, Leanna	Biological Sciences	James, Andrea	

Presentation Title	Time	Status	Presenter(s)	Primary Discipline	Faculty Sponsor	Designation
Intraspecific Variability of Photosynthetic Parameters in Grindelia squarrosa and Implication for Restoration Protocol	3:30 - 4:30 p.m.	Undergraduate Presentation	Thomas, Ryan; Marzulla, Morgan; Hawson, Kieran	Biological Sciences	Schneider, Gwen	
Development of An Anticancer Drug Delivery System Using a Lactobacillus plantarum Gene	3:30 - 4:30 p.m.	Undergraduate Presentation	Voris, Morgan	Biological Sciences	Hawkinson, Ann	
The genetic reality of seed zones: An analysis of genetic variation within Artemisia tridentate seeds used for restoration		Undergraduate Presentation	Waltman, Cassandra	Biological Sciences	McGlaughlin, Mitchell	
Popular Health Fads Encountered and Utilized by Undergraduate Students	3:30 - 4:30 p.m.	Undergraduate Presentation	Wong, Emily	Biological Sciences	Royse, Emily	
Quantification of infiltrating Mast cells in interleukin-6 knockout tumors	3:30 - 4:30 p.m.	Undergraduate Presentation	Woodyard, Jasmine	Biological Sciences	Pullen, Nicholas	
Disruptions to circadian core clock genes may enhance liver fibrosis in mice fed with a high-fat diet	3:30 - 4:30 p.m.	Graduate Presentation	Wu, Tsung-Yen; Aljobaily, Nouf; Weaver, Olyvia	Biological Sciences		Research Excellence Award Finalist, Community Engaged Scholar

### **University Center Map**

UC Second Floor

Parking Lot

Columbine B
Research
Excellence
Awards

Aspen C Aspen B Aspen A

Spruce C Spruce B Spruce A

Volunteer Check-in Presenter and Faculty Advisor Check-in

REA and Judge Check-in Longs Peak
Ballroom
Graduate
Biology
Sessions

Mt. Evans/Pikes Peak
Ballrooms
Poster Presentations