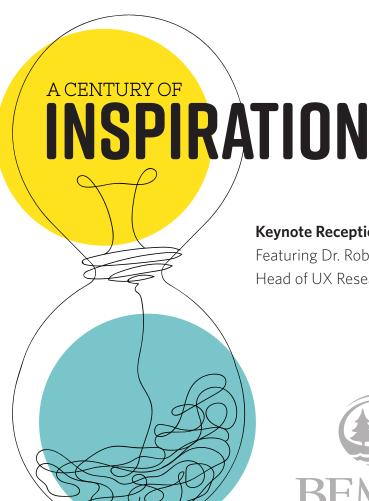
Wednesday, April 4

STUDENT A CHIEVE MENT CONFERENCE



Keynote Reception

Featuring Dr. Robert Youmans, Head of UX Research Sciences at YouTube







Dr. Faith Hensrud, President, Bemidji State University

Welcome to the 2018 Annual Student Scholarship and Creative Achievement Conference.

This day of discovery marks another milestone of success in the intellectual development and personal growth of our students. It is testament to BSU's ongoing mission of teaching, exploration, and reflection—all crucial to fulfilling our vision of preparing students to lead inspired lives.

This annual event presents the culmination of learning and accomplishment as demonstrated through the scholarship of discovery, creativity, and application. The conference reflects student success made possible by the university's rigorous, engaging academic environment and a highly interactive relationship between students and faculty.

Students' endeavors, and the dedicated faculty who teach and encourage them, bring honor to the university. The presentations, posters, and performances that are shared signify learning across the disciplines taught at Bemidji State. They also invite all who witness these works to gain new understanding of subjects both vital and fascinating



Dr. Travis Ricks, Chair, Student Achievement Conference

Welcome to Bemidji State University's 19th Annual Student Achievement Conference!

This event is an opportunity for Bemidji State University students to present their academic work to the community. The presentations vary in format and come from many different academic disciplines, but all are a celebration of academic inquiry and rigor. These presentations are advancements in education, science, and humanities happening at Bemidji State University. The student presenters, with the help of their faculty mentors, have done something marvelous and I am grateful to welcome you to this event!

Thank you for coming and please enjoy this day of scholarly celebration.

Keynote Speaker

DR. ROBERT YOUMANS

Dr. Robert J. Youmans is a cognitive psychologist who heads YouTube's User Experience Research Sciences (UXRS) team. Prior to joining Google, Rob was the Director of the Creative Design and User Experience (CDUX) laboratory at George Mason University (2011-2014), and an Assistant Professor of Applied Cognition at California State University, Northridge (2007-2011). Rob earned his Ph.D. in Cognitive Psychology with a doctoral minor in Industrial Design at the University of Illinois at Chicago (2007) for his research on links between physical prototyping and creative design. His M.A. degree in Experimental Psychology was awarded in 2003 by Wake Forest University for his research investigating human decision-making.



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Conference Faculty Sponsors

Rucha Ambikar
Erika Bailey-Johnson
Lora Bertelsen
Dragoljub Bilanovic
Valica Boudry
Anna Carlson
Kristina Cirks
Patrick Donnay
John Ellis
Angela Fournier
Todd Frauenholtz

Mark Fulton
Andrew Hafs
Michael Hamann
Faith Hensrud
Brian Hiller
Kathryn Klement
Richard Koch
Elizabeth Kujava
Kelly La Venture
Holly LaFerriere
Kate Larson

Douglas Leif Michael Lund Keith Marek Francois Neville Carla Norris-Raynbird Jenna O'Dell Curtis Olson Jay Passa Katie Peterson Travis Ricks Miriam Rios-Sanchez Carol Ann Russell
Cornelia Santos
Halbana Tarmizi
Dave Towley
Jeffrey Ueland
Mark Wallert
Valerie Wallingford
Miriam Webber
Jim White
Tamara Worner
Li Zhou

Conference Volunteer Assignments

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Angie Gora Tamera Mayer Patty Hartshorn Shannon Reyes

Registration located in Memorial Hall front lobby.



A special thank you to:

Sabrina Erickson (SAC Administrative Assistant)
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Tamera Mayer

Shannon Reyes

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Funding provided by:

Bemidji State University Office of Academic Affairs

Presentation Schedule (by time)

8:30 - 9:00 AM

ROOM	PRESENTER(S)	SPUNSUK	IIILE
Beaux Arts	Levi Espeseth, Noah Harstad, Micheal Newton, Timothy Roehrich	Curtis Olson	Trombone Quartet Performance

10:30 - 10:45 AM

ROOM	PRESENTER(S)	SPONSOR	TITLE
HS 103	Charity Ridlon	Todd Frauenholtz	Growing Letters: The Five Representations of Algebra
HS 113	Andrew Hanson, Loan Thi Kim Huynh, Rebecca Soukup, Sam Wasnuk	Kelly La Venture	Discovering Karvakko, P. A.'s Brand Awareness with Potential Government Clients
HS 214	Isaiah Fofanah, Nicholas Weidell, Chadwick Williams, Kali Wood	Angela Fournier	Determine Your Level of Empathy: Development of the Empathy Test
HS 228	Ashley Locklear	Cornelia Santos	The Application of Indigenous Ecological Knowledge (IEK) at Different Organizational/Institutional Levels
HS 229	Aaron Breitenfeld	John Ellis	The War of Regulation and Its Deeper Meaning
HS 230	Tess Heyer, Naomi Johnson, Michael Junker, Peyton Mills, Scott Smethers	Faith Hensrud	President's Student Commission: Peer Mentorship
HS 231	Bailey Barthel, Ashley Herdering, Nicole Jensen	Rucha Ambikar	Religion in Culture
HS 233	Anthony Orttel	Mark Fulton	Winter Feeding Behavior of the North American Porcupine in Northwest Minnesota
HS 245	Brandon Coleman, Jarek Straub, Joseph Vatnsdal	Halbana Tarmizi	The Delusion of Social Media Security
HS 247	Rachel Helin, Megan Frider, Ethan Apel	Elizabeth Kujava	Justice-involved Youth: Influence of Parenting, Extracurricular Participation, and Evidence-Based Practices
HS 248A	Clair Anliker, Claire Baumgartner, Beth Simons	Michael Hamann	Cloning of Focal Adhesion Proteins to Identify TCL/Rho Interactors
HS 248B	Randy Hoff, Catelyn LaCour, Tanner Schmitz	Brian Hiller	Artificial Waterfowl Cavity Nesting Structures and their Value in Beltrami County
HS 249	Westin Henkels	Patrick Donnay	The Ideological Dimensions of Viewing and Sharing of Fake News

10:50 - 11:05 AM

ROOM	PRESENTER(S)	SPONSOR	TITLE
HS 103	Abrianna Mellesmoen	Jenna O'Dell	Tug-of-War: One Math Problem Challenges Multiple Abilities
HS 113	Braden Devescovi, Erin Johnson, Rachael Norton, Andrew Walock	Kelly La Venture	Rural Market Research for Pinnacle Marketing Group
HS 214	Kaitlyn Bjerketvedt, Linsay Maddern, Nathan Roggenbuck	Angela Fournier	Social Sensation-Seeking Tendencies
HS 228	Jonathan Barcenas, Jordan Lutz	Anna Carlson	BSU Solar Photovoltaic Potential
HS 229	Ethan Bolton	Rucha Ambikar	Disappointed Optimism of the Russian Revolution
HS 230	Matthew Splittstoser	Valerie Wallingford	Are BSU Students Actively Involved in Student Clubs and Organizations: Why or Why Not?
HS 233	Aaron Breitenfeld, Casey Fails	Mark Fulton	Measuring the Height and Trunk Diameter of White Pines in Northern Minnesota
HS 245	Henry Pendleton	Elizabeth Kujava	Police Misconduct and Use of Body Cameras
HS 247	Christopher Baranoski, Jacob Harper, Hank Steffen	Halbana Tarmizi	Effects of Transferring Between Four Year Institutions
HS 248A	Jeffery Erickson, Marcus Mahliaire, Emily Westemeier	Michael Hamann	Detecting the Role of TCL in Metastatic Melanoma
HS 248B	Grant Stuefen	Brian Hiller	Deer Spotlight Surveys
HS 249	Richard Furlong	Patrick Donnay	Analyzing the Differentiation Among State Medical Marijuana Policies
			by Examining Lobbying Efforts and State Policy Trends

11:10 - 11:25 AM

11.10 - 11.23 AN	•		
ROOM	PRESENTER(S)	SPONSOR	TITLE
HS 103	Christopher Hart, Kyle Huepenbecker	Tamara Worner	Pascal's Triangle: Properties, Patterns, and Practicality
HS 113	Kyle Bushman, Lowell Laudert, Michael Schumacher	Douglas Leif	Fish House Rentals Through BSU Rec Center
HS 214	Peter Gable, Kaitlyn Gundersen, Kayla Kollar - Burkholder	Angela Fournier	Development of an Instrument to Measure Human-Computer Interaction
HS 228	Anna Haynes, Jordan Lutz	Erika Bailey-Johnson	Waste Reduction in Dining Services
HS 229	Phoebe Fero	John Ellis	The Native American "Savage": More Christian than Their Anglo-European Persecutors
HS 230	Breanna Baker, Cailey Birchem, Kierra Dalby,	Jay Passa	CARE Training: A Bystander Intervention Program
	Abigail Deitchler, Autumn Huju		



Presentation Schedule (by time)

11:10 - 11:25 AN	(CONTINUED)
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Ashley Abear

ROOM	PRESENTER(S)	SPONSOR	IIILE
HS 231	Arica Mahliaire	Kristina Cirks	Everyday Discrimination in Northern Minnesota
HS 233	Ryan McBrady	Mark Fulton	Study on Effective Management Methods of Leafy Spurge
HS 245	Isaac Johnson, Coleton Lynch, Colton Swanson	Halbana Tarmizi	Exploring Link between Extracurricular and Living On Campus
HS 247	Jocelyn Anderson	Patrick Donnay	Evaluating Theories of Income Polarization in the United States
HS 248A	Claire Baumgartner, Beth Simons	Michael Hamann	IT IS ALIVE! Live-Cell Imaging of TCL and its deltaN Mutant
HS 248B	Erik Ziegler	Brian Hiller	Difference in Predator Sightings Based on Bait Type in Hobson Memorial Forest

Elizabeth Kujava

11:30 - 11:45 AM

HS 249

ROOM	PRESENTER(S)	SPONSOR	TITLE
HS 113	Daniel Billett, William Schneiderhan, Jameson White	Kelly La Venture	Characteristics of Individuals Who Book Immersive Ecotourism Experiences
HS 214	Zoe Myrman, Tessa Tindell	Kathryn Klement	Seduced by Violence; A Look into the Domestic Violence Portrayed in Popular Media
HS 228	Shannon McNamara	Jeffrey Ueland	Redefining Wolf Habitat Selection
HS 229	Joshua Pavek	John Ellis	FDR: America's Savior
HS 230	Madeline Treuer	Faith Hensrud	Facing Diversity at BSU: A Photographic Collaboration
HS 231	Harley Brake Walker	Travis Ricks	The Influence of Light and Dark Colored Uniforms on Individuals Memory and Attitude of Police Competence
HS 233	Kaija Roy	Mark Fulton	Summer Light and Temperature in a Small Lake
HS 245	Alyssa Allen, Kallie Hoplin, Emily Howard	Halbana Tarmizi	Management in the Workplace
HS 247	Austin Dalland	Elizabeth Kujava	Law Enforcement Officer Stress and Substance Abuse
HS 248A	Trevor Chastek, Sharmila Nowrang	Michael Hamann	TCL Modulation of Vesicular Trafficking in HeLa Cells
HS 248B	Amanda Kooiker	Mark Wallert	Evaluating the Na+-H+ Exchanger Isoform 1 (NHE1) in Non-small Cell Lung Cancer
HS 249	Opalina Peralta	Patrick Donnay	How do Native American Candidates Win Elections in Non-Native Districts?

Juvenile Anti-Social Behaviors and Adult Criminal Offending

1:00 - 1:15 PM

ROOM	PRESENTER(S)	SPONSOR	TITLE
HS 113	Charles Wilson	Rucha Ambikar	Finding Correlations Between Family Dynamic and Childrens Acedemic Success
HS 214	Jessie Fuhrman	Travis Ricks	The Implicit Influences of Gender Stereotypes on Face Recognition and the Creation of False Memories
HS 229	Arica Mahliaire	Kristina Cirks	Cultivation - A Reading of Collected Creative Non-Fiction
HS 231	Caylin Coen	Kate Larson	How Would Mental Illness Look if Seen
HS 233	Haley Rasmussen	Mark Fulton	Companion Planting for Sustainable Farming
HS 245	Mitschke Quinntin	Elizabeth Kujava	Fitness, Nutrition, and Law Enforcement Officer Stress
HS 247	Madison Filipiak, Torri Jean, Cassandra Moffitt	Halbana Tarmizi	Chasing the Elusive Ideal Group Project
HS 248A	Drake Sime, Benjamin Wilander	Michael Hamann	Detection of Palmitoylation of TCL via Click Chemistry
HS 248B	Courtney Clark	Brian Hiller	Animal Use in Post-fire Areas via Camera Traps in Shenandoah National Park, VA
HS 249	Joshua Pavek	Patrick Donnay	Tweets from the Bully Pulpit: President Trump's Twitter Habits and Popularity

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Presentation Schedule (by time)

1:20 -	1:35	PM
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ROOM	PRESENTER(S)	SPONSOR	TITLE
HS 113	Derek Ambrosie, Kirk Bryan	Dave Towley	TADMobile Upgrade Project
HS 214	Peter Gable, Kathryn Long, Lauren Proels	Angela Fournier	Horse, Dog, or None: An Experimental Investigation of Animal-Assisted Learning
HS 229	Melanie Howick-Erickson	Carol Ann Russell	My Poetry
HS 231	Anthony McCartney	Rucha Ambikar	What Effects Does the TRIO Program Have on Students' Grade Performance?
HS 233	James Cramton	Mark Fulton	Genetic Characterization of Size and Structure in Quaking Aspen Clones
HS 245	Katlyn Adair, Jessica Hegg, Kaerstin Quinlan	Halbana Tarmizi	Open Textbooks at Bemidji State University
HS 247	Hailee Saxton	Patrick Donnay	Examining the Strategies of Formation and Action Among Social Movements:
			A Comparison of the Civil Rights Movement and Black Lives Matter
HS 248A	Benjamin Wilander	Michael Hamann	Detection of Novel Rho GAP/GTPase Selectivities Using In Vitro Split-luciferase Assays
HS 248B	Casey Den Ouden	Michael Lund	Redesigning Fish Tracking
HS 249	Rvan Enger	Elizabeth Kuiava	Criminal Self-Image and Pretrial Supervision

1:40:00 PM - 1:55:00 PM

1:40:00 PM - 1:55:00 PM				
	ROOM	PRESENTER(S)	SPONSOR	TITLE
	HS 113	Colton Tretsven, Jacob Ylitalo	Dave Towley	Applied Project Management: Admissions Office Arcade Cabinet
	HS 214	Daniela Maltais	Angela Fournier	Culture in Context: Effect of Feedback on Writing Performance of International Students
	HS 229	Kylie DeGrote	Miriam Webber	Soviet Socialist Realism and Modern Art
	HS 231	Cassandra Larson	Rucha Ambikar	Holistic and Alternative Medicine
	HS 245	Charles Field, Sean Hunter, Daniel Sontowski	Halbana Tarmizi	Working While Studying? Correlation Between Working and Students' GPA
	HS 247	Daniel Billett, Adam Lovick	Halbana Tarmizi	College Students Engagement on Social Media
	HS 248A	Kyle Bagnell	Mark Wallert	Signalling Effect of Proline Rich Tyrosine Kinase 2 Activity on the Na+-H+ Exchanger Isoform 1 Regulation
	HS 248B	Clarice Wallert	Mark Wallert	CHP2: A Potential Therapeutic Target for Treatment of Non-Small Cell Lung Cancer
	HS 249	AmiJo Wadena	Patrick Donnay	Beyond the Movement: State Action in Addressing Campus Sexual Violence



Student Poster Presentations 11:30 a.m. - 1 p.m.

RUCHA AMBIKAR - UPPER MEMORIAL HALL

PRESENTER(S) Joseph Scanlan Sean Salfer

Gavin Lewis Mirthe Schuurmans

Daniel Scharfenberg Bailey Diedrich, Kaitlyn Hughes

Deuchester Mogeni

William Christiansen

TITLE

American Sports Culture Conservatives Across the Globe

From Australopithecus to Homo Sapiens

Happiness Compared

How the Fall of Communism in Yugoslavia Lead to a Rise in Ethnic Nationalism and a Push for Independence/Aautonomy

Myths and Legends of Shapeshifting in Cultures

Souls Throughout Cultures

The Native American Ojibwe Preservation of Natural Resources

ERIKA BAILEY-JOHNSON — UPPER MEMORIAL HALL

PRESENTER(S) Nitzana Flores, Anna Haynes, Skye Iwanski, Camilla Prosise

TITLE

Arts of the Farth Festival

LORA BERTELSENR — UPPER MEMORIAL HALL

PRESENTER(S)

TITLE

Mental Health Advisory Board

Peter Gable, Kathryn Long, Donelle Omer, Elizabeth Thurlow DRAGOLJUB BILANOVIC — UPPER MEMORIAL HALL

PRESENTER(S)

Adrianna Burrows, Samuel Downhour, Annika Kussow, Jacob Shaughnessy, Colton Sveningson Cultivation of Microalgae with Nitrifiers for Increase in Biomass

Xiyuan Cao, Gurgen Grigoryants, Minrui Zhu

Alysha Brooks, Madison DelCastillo, Alicia Gohmann Markus Babris, Parker Janicke, Matthew Perry, Parker Rhodes

Aili Kultala, Ryan Lundgren, Jesse Takkinen

Ian Anderson, Lukas Engel, Emily Rapp, Colton Sveningson Ryan Hagerty, Emily Tribby, Jacob Urban

Chance Bitzer, Myles Fitzgerald, Yolana Kaml

Edward Neidviecky, Alyssa Pajari, Haley Simonson

Calvin Andrews, Derek Boese, Floyd Jourdain

Matthew Bownes, Christian Johnson, Sagyan Khadka, Kenneth Morris

Tanner Beck, Nicholas Myre, Mathieu Vezies

Jacob Dahl, Austin Dreher, Alex Moreno

TITLE

Deforestation of the Amazon Forest

Effects of Commercial and Individual Fishing in the Ocean Effects of De-icing Chemicals on Surface Water Environmental Impact Assessment of Bemidji Brewing

Environmental Impacts of Dams Environmental Impacts of Fracking

Invasive Species: The Creatures Taking Over Our Waters

Our Water Needs To Be Saved

Realistic Methods of Indoor Air Pollution Reduction via Energy Conservation

Reduction of Greenhouse Gases by Replacing Fossil Fuels with Alternative Energy Sources

Should We Stop the Whining and Start the Mining?

The Complexity of Recognizing, Reversing, and Monitoring our Overfishing Problem

VALICA BOUDRY — UPPER MEMORIAL HALL

PRESENTER(S)

TITLE

The Northern Student: News by Students, for Students

ANGELA FOURNIER — UPPER MEMORIAL HALL

Hannah Cook, Adam Grobove, Kaylee Johnson, Stacey Kaslon

PRESENTER(S) Chadwick Williams TITLE

Pet Partners: An Investigation of Animal-Assisted Activity

MARK FULTON — LOWER MEMORIAL HALL

PRESENTER(S) Tyler Bryan Patrick Subialka

TITLE

Rhizosphaera pini on Balsam Fir

White-Tailed Deer (Odocoileus virginianus) Population Estimation Using Scent Tracking Stations in Bemidii, MN

20

18 Student Achievement Conferen	ce

Student Poster Presentations 11:30 a.m. - 1 p.m.

ANDREW HAFS - LOWER MEMORIAL HALL

Joshua Janecek, Hunter Weidenborner

Benjamin Erb, Benjamin Miller Emily Larson, Kayla Morey

TITLE

Burbot Activity in Relation to Light Penetration on Lake Bemidji, Minnesota

Fecundity of Female Walleyes in the Red Lakes, Minnesota

Growth Rate and Hatch Date of Age-O Fishes on Leech Lake, Minnesota Before Zebra Mussel Establishment

KATHRYN KLEMENT — UPPER MEMORIAL HALL

PRESENTER(S) Kaitlyn Bjerketvedt, Chadwick Williams TITLE

Rape Myths and Their Place in Society

RICHARD KOCH - LOWER MEMORIAL HALL

PRESENTER(S)

PRESENTER(S)

Nikolus Preston Steven Ess

TITLE

Spatial Variation of Macroinvertebrates in a Bog Lake in NorthCentral Minnesota

Understanding Factors that Influence Wild Rice Production

KELLY LA VENTURE — UPPER MEMORIAL HALL

Luke Gillund, Will Pappenfus, Thor Swanson

Gurgen Grigoryants, Cody Sorenson

Alex Abrahamson, Brandi Roggenkamp

Kaitlyn Guertin Wilson, Emily Westemeier

PRESENTER(S)

TITLE

The Effects of Fishing Organizations and Their Members' Lives

HOLLY LAFERRIERE — LOWER MEMORIAL HALL

PRESENTER(S)

TITLE

Characterization and Isolation of the Mycobacteriophage KleverKiS

Characterization of Mycobacteriophage Mirai

KEITH MAREK - LOWER MEMORIAL HALL

PRESENTER(S)

Peter Bovold, Austin MacRae

Andrea Bunich, Hyzong Lor

Mitchell Annis, Zachary Baker

TITLE

Caffeine and Magnesium Levels in Bigelow Green Tea and Black Tea

DisposeRX - A Disposal Method for Unused Medication

Determination of Iron and Bisphenol A Levels in Beer Determination of Iron and Malic Acid in Wine

FRANCOIS NEVILLE — UPPER MEMORIAL HALL

Michael Farber, Roman Martushev, Jack Stigman

PRESENTER(S)

TITLE

Analyzing Airfare Pricing

CARLA NORRIS-RAYNBIRD — UPPER MEMORIAL HALL

Sara Achen, Drew Boehne, Karl Gorecki, Maria Ochoa Castillo

Kenneth Bentley, Alyssa Dervie, Yolana Kaml, James Lincoln

PRESENTER(S) Sandi Krueger

TITLE

How To Be An Activist

Social Causes and Effects of Mercury Bioaccumulation in Northern Regions

Waste-management and Technology

KATIE PETERSON - LOWER MEMORIAL HALL

PRESENTER(S)

Victoria Adams, Andrea Bunich

Zachary Baker

Hyzong Lor, Benjamin Wilander

Nathaniel Larson, Austin MacRae

Amanda Tran

TITLE

Detection of Hydrogen Sulfide using a Fluorescent Based Probe

Detection of Hydrogen Sulfide with a Coumarin-based Fluorescent Probe

Synthesis of Gadolinium-TREN-HIS-MAM for Phosphate Capture and Release

Synthesis of Gd-complexes for the Recycling of Phosphate

Synthesis of Gd-DETA-MAM to Capture Phosphates in Freshwater



Student Poster Presentations 11:30 a.m. - 1 p.m.

TRAVIS RICKS - UPPER MEMORIAL HALL

PRESENTER(S)

Javmi Nelson

Harley Waller, Eric Bovold, Kayla Kollar-Burkholder, Madeline Halfmann Matthan Altiser. Michael Sveine. Carolyn Schneider. Allie Mechtel. Elizabeth Pouliot

Peter Gable, Hailey Hensel, Alanna McLean, Alexander Nistler

TITLE

Does A Nap Affect Insight Problem Solving Performance?

Facial Recognition

Object Recognition Processes

The Human Visual System: Overcoming Ambiguity through Color

MIRIAM RIOS-SANCHEZ — UPPER MEMORIAL HALL

PRESENTER(S)

Mirabel Tamukong

Joshua Jones

TITLE

Designing a Monitoring Network for Hydorchemical Characterization of Aquifers on the Upper-Lower Red

Lake Watershed

Hydrodynamic Characterization of Glacial Aquifers from Red Lake Nation

JEFFREY UELAND - UPPER MEMORIAL HALL

PRESENTER(S) Cassie Block

Alexander Nistler

Matthew Wang Harold Stanius Samuel Rausch Noah Swanson Chloe Smith

Nicholas Powers

Ashley Ramm Alexander Elness McKenzie Ingram Tristan Roehrig Jacob Kaden Hunter Miller Tyler Besser

Brandon Dahring Tanner Pletschett Ellen Frondorf Ryan Ness Ciara McCarty

Victoria Drake

Sarah Christiansen Joseph Riley Brandon Ertl Crystal Sucher Megan Severson Tyler Boyer Emily Raisbeck

Annika Bollesen

TITLE

A Spatial Analysis of Moose Populations and Habitat in Northern Minnesota

A Spatial Analysis of Tornado Activity and Lanscape in Minnesota

A Spatial and Temporal Analysis of Macroinvertebrate Assemblages in Lake Bemidji

A Spatial and Temporal Analysis of Population Change of Dabbling Ducks from 1997 to Present Data (2015) A Spatial and Temporal Analysis of the Relationship Between Gray Wolf and Elk Populations in Montana

A Spatial Examination of Near-Term Changes in Climate Patterns in Northeast Minnesota

A Time Series Analysis of Post-secondary Enrollment An Examination in Sea Otter Population Changes Over Time

An Examination of Change in Whitetail Buck Harvest Rates in Zone 300 Before and After the Implementation of

the "4 Points on One Side" Rule

An Examination of Change Over Time: Bobcat Populations in Minnesota An Examination of Extreme Weather Events on Breeding Waterfowl

An Examination of Factors in Purple Martin Nesting Success in Bemidji, Minnesota An Examination of Income and Hunting and Fishing Activity in the United States

An Examination of the Historical Spatial Distribution of Wild Turkey Populations in Minnesota An Examination of the Relationship Between Public Land and Recreation in the United States An Examination of the Relationship in the Distribution Between Large Mammals and the Distribution of

Phalaris arundinacea (reed canarygrass) in Minnesota

An Examination of the Spatial Distribution of Aquatic Invasive Species in the Midwestern United States An Examination of the Spatial Distribution of Commodity Distribution and Prices in Minnesota An Examination of Waterfowl Hunting and Populations in Key United States Flyways Assessing Post-Fire Oak and Pine Regeneration in Shenandoah National Park

Assessing Sentinel-2B derived NDVI and Forest Stand Characteristics Criteria for Modeling Quaking Aspen Health/

Mortality in Northern Minnesota Ecoregions

Change in Harvest Distribution of Minnesota Banded Wood Ducks from 1991-2016

Comparing Time Series Models of Influenza Incidence

Extreme Lows in Monarch Butterfly Populations: Reversing the Trend

Factors Causing Minnesota Lake Levels to Change

Important Pollinator at Risk; A Spatial Analysis of the Rusty Patched Bumble Bee (Bombus affinis) Habitat in Minnesota

Minnesota State Parks Visitor Use and Household Income Predicting U.S. Recessions: Time Series Analysis Property Tax Trends in the State of Wisconsin

Wild Horse Population Control in the Western United States



Student Poster Presentations 11:30 a.m. - 1 p.m.

MARK WALLERT - LOWER MEMORIAL HALL

PRESENTER(S) Hunter Hames, Daniela Maltais

Alaina Larson

Savannah Corradi

Stephanie Hanowski

Ashley Stiglich

JIM WHITE - UPPER MEMORIAL HALL

PRESENTER(S)

Mikayla Larson

LI ZHOU - UPPER MEMORIAL HALL PRESENTER(S)

Stephanie Berndt, Kaitlyn Bjerketvedt, Nathan Roggenbuck Daniela Maltais, Danielle Nelson, Chadwick Williams, Kali Wood

Joseph Allen, Corinne Harper, Michael Sveine

TITLE

An Investigation of NHE1-Dependent Stress Fiber Formation and Migration

Can Less Be More:? Investigating Potential Relationships between Chemotherapy Drugs and NHE1 Inhibitors in Ovarian

Cancer Treatment

Evaluating Na+-H+ Exchanger Isoform 1 (NHE1) as a Therapeutic Target in Ovarian Cancer Evaluating Cell Proliferation and Migration through the Inhibition of Palmitoylation and NHE1

Evaluating the Role of the Na+-H+ Exchanger Isoform 1 (NHE1) in Lysophosphatidic Acid and Urokinase-type

Plasminogen Activator Stimulation of Ovarian Cancer Cells

TITLE

Mental Health Challenges in Division II Collegiate Athletes

TITLE

An Analysis of Sleepwalking Using EEG

EEG Biofeedback: Promising Approach for Understanding and Treating ADHD

Implications of EEG Use in Coma Patients

TECHNOLOGY ART & DESIGN SPONSORED BY MITCHELL BLESSING — MEMORIAL 260

PRESENTER(S)

Rilev Pettit

Logan Pettit

Havley Riebe Emily Kolhof

Shae Neuschwander

Seth Larson

CeCelia Schultz

Wyatt Wehking

Kristin Knudson

Carlee Waschek

OIL PAINTING CLASS SPONSORED BY NATALIA HIMMIRSKA — OUTSIDE MEMORIAL 260

PRESENTER(S)

Delanev Crowl

Luna Harbor

Amanda Novacek

Jacob Numendahl

Lauren Reid

Naomi Schiller

Mirte Schumans

Lauren Stock

Amy Stokes

Madina Usamanova

Brett Wallin



Alex Abrahamson Sara Achen	11:10 AM 11:30 AM	HS 249	1
Sara Achen	11:30 AM		Juvenile Anti-Social Behaviors and Adult Criminal Offending
		Lower Memorial	Characterization of Mycobacteriophage Mirai
Madina Adain	11:30 AM	Upper Memorial	Social Causes and Effects of Mercury Bioaccumulation in Northern Regions
Katlyn Adair	1:20 PM	HS 245	Open Textbooks at Bemidji State University
Victoria Adams	11:30 AM	Lower Memorial	Detection of Hydrogen Sulfide using a Fluorescent Based Probe
Alyssa Allen	11:30 AM	HS 245	Management in the Workplace
Joseph Allen	11:30 AM	Upper Memorial	Implications of EEG Use in Coma Patients
Matthan Altiser	11:30 AM	Upper Memorial	Object Recognition Processes
Derek Ambrosie	1:20 PM	HS 113	TADMobile Upgrade Project
Ian Anderson	11:30 AM	Upper Memorial	Environmental Impacts of Dams
Jocelyn Anderson	11:10 AM	HS 247	Evaluating Theories of Income Polarization in the United States
Calvin Andrews	11:30 AM	Upper Memorial	Realistic Methods of Indoor Air Pollution Reduction via Energy Conservation
Clair Anliker	10:30 AM	HS 248A	Cloning of Focal Adhesion Proteins to Identify TCL/Rho Interactors
Mitchell Annis	11:30 AM	Lower Memorial	DisposeRX - A Disposal Method for Unused Medication
Ethan Apel	10:30 AM	HS 247	Justice-involved Youth: Influence of Parenting, Extracurricular Participation, and Evidence-Based Practices
Markus Babris	11:30 AM	Upper Memorial	Effects of De-icing Chemicals on Surface Water
Kyle Bagnell	1:40 PM	HS 248A	Signalling Effect of Proline Rich Tyrosine Kinase 2 Activity on the Na+-H+ Exchanger Isoform 1 Regulation
Breanna Baker	11:10 AM	HS 230	CARE Training: A Bystander Intervention Program
Zachary Baker	11:30 AM	Lower Memorial	Detection of Hydrogen Sulfide with a Coumarin-based Fluorescent Probe
Zachary Baker	11:30 AM	Lower Memorial	DisposeRX - A Disposal Method for Unused Medication
Christopher Baranoski	10:50 AM	HS 247	Effects of Transferring Between Four Year Institutions
Jonathan Barcenas	10:50 AM	HS 228	BSU Solar Photovoltaic Potential
Bailey Barthel	10:30 AM	HS 231	Religion in Culture
Claire Baumgartner	10:30 AM	HS 248A	Cloning of Focal Adhesion Proteins to Identify TCL/Rho Interactors
Claire Baumgartner	11:10 AM	HS 248A	IT IS ALIVE! Live-Cell Imaging of TCL and its deltaN Mutant
Tanner Beck	11:30 AM	Upper Memorial	Should We Stop the Whining and Start the Mining?
Kenneth Bentley	11:30 AM	Upper Memorial	Waste-management and Technology
Stephanie Berndt	11:30 AM	Upper Memorial	An Analysis of Sleepwalking Using EEG
Tyler Besser	11:30 AM	Upper Memorial	An Examination of the Relationship in the Distribution Between Large Mammals and the Distribution of
			Phalaris arundinacea (reed canarygrass) in Minnesota
Daniel Billett	11:30 AM	HS 113	Characteristics of Individuals Who Book Immersive Ecotourism Experiences
Daniel Billett	1:40 PM	HS 247	College Students Engagement on Social Media
Cailey Birchem	11:10 AM	HS 230	CARE Training: A Bystander Intervention Program
Chance Bitzer	11:30 AM	Upper Memorial	Invasive Species: The Creatures Taking Over Our Waters
Kaitlyn Bjerketvedt	10:50 AM	HS 214	Social Sensation-Seeking Tendencies
Kaitlyn Bjerketvedt	11:30 AM	Upper Memorial	An Analysis of Sleepwalking Using EEG
Kaitlyn Bjerketvedt	11:30 AM	Upper Memorial	Rape Myths and Their Place in Society
Cassie Block	11:30 AM	Upper Memorial	A Spatial Analysis of Moose Populations and Habitat in Northern Minnesota
Drew Boehne	11:30 AM	Upper Memorial	Social Causes and Effects of Mercury Bioaccumulation in Northern Regions
Derek Boese	11:30 AM	Upper Memorial	Realistic Methods of Indoor Air Pollution Reduction via Energy Conservation
Annika Bollesen	11:30 AM	Upper Memorial	Wild Horse Population Control in the Western United States



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NAME	TIME	ROOM	TITLE
Ethan Bolton	10:50 AM	HS 229	Disappointed Optimism of the Russian Revolution
Eric Bovold	11:30 AM	Upper Memorial	Facial Recognition
Peter Bovold	11:30 AM	Lower Memorial	Caffeine and Magnesium Levels in Bigelow Green Tea and Black Tea
Matthew Bownes	11:30 AM	Upper Memorial	Reduction of Greenhouse Gases by Replacing Fossil Fuels with Alternative Energy Sources
Tyler Boyer	11:30 AM	Upper Memorial	Predicting U.S. Recessions: Time Series Analysis
Harley Brake Walker	11:30 AM	HS 231	The Influence of Light and Dark Colored Uniforms on Individuals Memory and Attitude of Police Competence
Aaron Breitenfeld	10:30 AM	HS 229	The War of Regulation and Its Deeper Meaning.
Aaron Breitenfeld	10:50 AM	HS 233	Measuring the Height and Trunk Diameter of White Pines in Northern Minnesota
Alysha Brooks	11:30 AM	Upper Memorial	Effects of Commercial and Individual Fishing in the Ocean
Kirk Bryan	1:20 PM	HS 113	TADMobile Upgrade Project
Tyler Bryan	11:30 AM	Lower Memorial	Rhizosphaera pini on Balsam Fir
Andrea Bunich	11:30 AM	Lower Memorial	Detection of Hydrogen Sulfide using a Fluorescent Based Probe
Andrea Bunich	11:30 AM	Lower Memorial	Determination of Iron and Malic Acid in Wine
Adrianna Burrows	11:30 AM	Upper Memorial	Cultivation of Microalgae with Nitrifiers for Increase in Biomass
Kyle Bushman	11:10 AM	HS 113	Fish House Rentals Through BSU Rec Center
Xiyuan Cao	11:30 AM	Upper Memorial	Deforestation of the Amazon Forest
Trevor Chastek	11:30 AM	HS 248A	TCL Modulation of Vesicular Trafficking in HeLa Cells
Sarah Christiansen	11:30 AM	Upper Memorial	Comparing Time Series Models of Influenza Incidence
William Christiansen	11:30 AM	Upper Memorial	The Native American Ojibwe Preservation of Natural Resources
Courtney Clark	1:00 PM	HS 248B	Animal Use in Post-fire Areas via Camera Traps in Shenandoah National Park, VA
Caylin Coen	1:00 PM	HS 231	How Would Mental Illness Look if Seen
Brandon Coleman	10:30 AM	HS 245	The Delusion of Social Media Security
Hannah Cook	11:30 AM	Upper Memorial	The Northern Student: News by Students, for Students.
Savannah Corradi	11:30 AM	Lower Memorial	Evaluating Na+-H+ Exchanger Isoform 1 (NHE1) as a Therapeutic Target in Ovarian Cancer
James Cramton	1:20: PM	HS 233	Genetic Characterization of Size and Structure in Quaking Aspen Clones
Jacob Dahl	11:30 AM	Upper Memorial	The Complexity of Recognizing, Reversing, and Monitoring our Overfishing Problem
Brandon Dahring	11:30 AM	Upper Memorial	An Examination of the Spatial Distribution of Commodity Distribution and Prices in Minnesota
Kierra Dalby	11:10 AM	HS 230	CARE Training: A Bystander Intervention Program
Austin Dalland	11:30 AM	HS 247	Law Enforcement Officer Stress and Substance Abuse
Kylie DeGrote	1:40 PM	HS 229	Soviet Socialist Realism and Modern Art
Abigail Deitchler	11:10 AM	HS 230	CARE Training: A Bystander Intervention Program
Madison DelCastillo	11:30 AM	Upper Memorial	Effects of Commercial and Individual Fishing in the Ocean
Casey Den Ouden	1:20 PM	HS 248B	Redesigning Fish Tracking
Alyssa Dervie	11:30 AM	Upper Memorial	Waste-management and Technology
Braden Devescovi	10:50 AM	HS 113	Rural Market Research for Pinnacle Marketing Group
Bailey Diedrich	11:30 AM	Upper Memorial	Myths and Legends of Shapeshifting in Cultures
Samuel Downhour	11:30 AM	Upper Memorial	Cultivation of Microalgae with Nitrifiers for Increase in Biomass
Victoria Drake	11:30 AM	Upper Memorial	An Examination of the Spatial Distribution of Aquatic Invasive Species in the Midwestern United States
Austin Dreher	11:30 AM	Upper Memorial	The Complexity of Recognizing, Reversing, and Monitoring our Overfishing Problem
Alexander Elness	11:30 AM	Upper Memorial	An Examination of Extreme Weather Events on Breeding Waterfowl
Lukas Engel	11:30 AM	Upper Memorial	Environmental Impacts of Dams



NAME	TIME	ROOM	TITLE
Ryan Enger	1:20 PM	HS 249	Criminal Self-Image and Pretrial Supervision
Benjamin Erb	11:30 AM	Lower Memorial	Fecundity of Female Walleyes in the Red Lakes, Minnesota
Jeffery Erickson	10:50 AM	HS 248A	Detecting the Role of TCL in Metastatic Melanoma
Brandon Ertl	11:30 AM	Upper Memorial	Factors Causing Minnesota Lake Levels to Change
Levi Espeseth	8:30 AM	Beaux Arts	Trombone Quartet Performance
Steven Ess	11:30 AM	Lower Memorial	Understanding Factors that Influence Wild Rice Production
Casey Fails	10:50 AM	HS 233	Measuring the Height and Trunk Diameter of White Pines in Northern Minnesota
Michael Farber	11:30 AM	Upper Memorial	Analyzing Airfare Pricing
Phoebe Fero	11:10 AM	HS 229	The Native American "Savage": More Christian than Their Anglo-European Persecutors
Charles Field	1:40 PM	HS 245	Working While Studying? Correlation Between Working and Students' GPA
Madison Filipiak	1:00 PM	HS 247	Chasing the Elusive Ideal Group Project
Myles Fitzgerald	11:30 AM	Upper Memorial	Invasive Species: The Creatures Taking Over Our Waters
Nitzana Flores	11:30 AM	Upper Memorial	Arts of the Earth Festival
Isaiah Fofanah	10:30 AM	HS 214	Determine Your Level of Empathy: Development of the Empathy Test
Megan Frider	10:30 AM	HS 247	Justice-involved Youth: Influence of Parenting, Extracurricular Participation, and Evidence-Based Practices
Ellen Frondorf	11:30 AM	Upper Memorial	Assessing Post-Fire Oak and Pine Regeneration in Shenandoah National Park
Jessie Fuhrman	1:00 PM	HS 214	The Implicit Influences of Gender Stereotypes on Face Recognition and the Creation of False Memories
Richard Furlong	10:50 AM	HS 249	Analyzing the Differentiation Among State Medical Marijuana Policies by Examining Lobbying Efforts and State
			Policy Trends
Peter Gable	11:10 AM	HS 214	Development of an Instrument to Measure Human-Computer Interaction
Peter Gable	11:30 AM	Upper Memorial	Mental Health Advisory Board
Peter Gable	11:30 AM	Upper Memorial	The Human Visual System: Overcoming Ambiguity through Color
Peter Gable	1:20 PM	HS 214	Horse, Dog, or None: An Experimental Investigation of Animal-Assisted Learning
Luke Gillund	11:30 AM	Upper Memorial	The Effects of Fishing Organizations and Their Members' Lives
Alicia Gohmann	11:30 AM	Upper Memorial	Effects of Commercial and Individual Fishing in the Ocean
Karl Gorecki	11:30 AM	Upper Memorial	Social Causes and Effects of Mercury Bioaccumulation in Northern Regions
Gurgen Grigoryants	11:30 AM	Lower Memorial	Characterization and Isolation of the Mycobacteriophage KleverKiS
Gurgen Grigoryants	11:30 AM	Upper Memorial	Deforestation of the Amazon Forest
Adam Grobove	11:30 AM	Upper Memorial	The Northern Student: News by Students, for Students.
Kaitlyn Guertin Wilson	11:30 AM	Lower Memorial	Determination of Iron and Bisphenol A Levels in Beer
Kaitlyn Gundersen	11:10 AM	HS 214	Development of an Instrument to Measure Human-Computer Interaction
Ryan Hagerty	11:30 AM	Upper Memorial	Environmental Impacts of Fracking
Madeline Halfmann	11:30 AM	Upper Memorial	Facial Recognition
Hunter Hames	11:30 AM	Lower Memorial	An Investigation of NHE1-Dependent Stress Fiber Formation and Migration
Stephanie Hanowski	11:30 AM	Lower Memorial	Evaluating Cell Proliferation and Migration through the Inhibition of Palmitoylation and NHE1
Claire Hansen	11:30 AM	Upper Memorial	A Spatial and Temporal Analysis of Macroinvertebrate Assemblages in Lake Bemidji
Andrew Hanson	10:30 AM	HS 113	Discovering Karvakko, P. A.'s Brand Awareness with Potential Government Clients
Corinne Harper	11:30 AM	Upper Memorial	Implications of EEG Use in Coma Patients
Jacob Harper	10:50 AM	HS 247	Effects of Transferring Between Four Year Institutions
Noah Harstad	8:30 AM	Beaux Arts	Trombone Quartet Performance
Christopher Hart	11:10 AM	HS 103	Pascal's Triangle: Properties, Patterns, and Practicality

NAME	TIME	ROOM	TITLE
Anna Haynes	11:10 AM	HS 228	Waste Reduction in Dining Services
Anna Haynes	11:30 AM	Upper Memorial	Arts of the Earth Festival
Jessica Hegg	1:20 PM	HS 245	Open Textbooks at Bemidji State University
Rachel Helin	10:30 AM	HS 247	Justice-involved Youth: Influence of Parenting, Extracurricular Participation, and Evidence-Based Practices
Westin Henkels	10:30 AM	HS 249	The Ideological Dimensions of Viewing and Sharing of Fake News
Hailey Hensel	11:30 AM	Upper Memorial	The Human Visual System: Overcoming Ambiguity through Color
Ashley Herdering	10:30 AM	HS 231	Religion in Culture
Tess Heyer	10:30 AM	HS 230	President's Student Commission: Peer Mentorship
Randy Hoff	10:30 AM	HS 248B	Artificial Waterfowl Cavity Nesting Structures and their Value in Beltrami County
Kallie Hoplin	11:30 AM	HS 245	Management in the Workplace
Emily Howard	11:30 AM	HS 245	Management in the Workplace
Melanie Howick-Erickson	1:20 PM	HS 229	My Poetry
Kyle Huepenbecker	11:10 AM	HS 103	Pascal's Triangle: Properties, Patterns, and Practicality
Kaitlyn Hughes	11:30 AM	Upper Memorial	Myths and Legends of Shapeshifting in Cultures
Autumn Huju	11:10 AM	HS 230	CARE Training: A Bystander Intervention Program
Sean Hunter	1:40 PM	HS 245	Working While Studying? Correlation Between Working and Students' GPA
Loan Thi Kim Huynh	10:30 AM	HS 113	Discovering Karvakko, P. A.'s Brand Awareness with Potential Government Clients
McKenzie Ingram	11:30 AM	Upper Memorial	An Examination of Factors in Purple Martin Nesting Success in Bemidji, Minnesota
Skye Iwanski	11:30 AM	Upper Memorial	Arts of the Earth Festival
Joshua Janecek	11:30 AM	Lower Memorial	Burbot Activity in Relation to Light Penetration on Lake Bemidji, Minnesota
Parker Janicke	11:30 AM	Upper Memorial	Effects of De-icing Chemicals on Surface Water
Torri Jean	1:00 PM	HS 247	Chasing the Elusive Ideal Group Project
Nicole Jensen	10:30 AM	HS 231	Religion in Culture
Christian Johnson	11:30 AM	Upper Memorial	Reduction of Greenhouse Gases by Replacing Fossil Fuels with Alternative Energy Sources
Erin Johnson	10:50 AM	HS 113	Rural Market Research for Pinnacle Marketing Group
Isaac Johnson	11:10 AM	HS 245	Exploring Link between Extracurricular and Living On Campus
Kaylee Johnson	11:30 AM	Upper Memorial	The Northern Student: News by Students, for Students.
Naomi Johnson	10:30 AM	HS 230	President's Student Commission: Peer Mentorship
Joshua Jones	11:30 AM	Upper Memorial	Hydrodynamic Characterization of Glacial Aquifers from Red Lake Nation
Floyd Jourdain	11:30 AM	Upper Memorial	Realistic Methods of Indoor Air Pollution Reduction via Energy Conservation
Michael Junker	10:30 AM	HS 230	President's Student Commission: Peer Mentorship
Jacob Kaden	11:30 AM	Upper Memorial	An Examination of the Historical Spatial Distribution of Wild Turkey Populations in Minnesota
Yolana Kaml	11:30 AM	Upper Memorial	Invasive Species: The Creatures Taking Over Our Waters
Yolana Kaml	11:30 AM	Upper Memorial	Waste-management and Technology
Stacey Kaslon	11:30 AM	Upper Memorial	The Northern Student: News by Students, for Students.
Sagyan Khadka	11:30 AM	Upper Memorial	Reduction of Greenhouse Gases by Replacing Fossil Fuels with Alternative Energy Sources
Kayla Kollar-Burkholder	11:10 AM	HS 214	Development of an Instrument to Measure Human-Computer Interaction
Kayla Kollar-Burkholder	11:30 AM	Upper Memorial	Facial Recognition
Amanda Kooiker	11:30 AM	HS 248B	Evaluating the Na+-H+ Exchanger Isoform 1 (NHE1) in Non-small Cell Lung Cancer
Sandi Krueger	11:30 AM	Upper Memorial	How To Be An Activist
Aili Kultala	11:30 AM	Upper Memorial	Environmental Impact Assessment of Bemidji Brewing
Annika Kussow	11:30 AM	Upper Memorial	Cultivation of Microalgae with Nitrifiers for Increase in Biomass



NAME	TIME	ROOM	TITLE
Catelyn LaCour	10:30 AM	HS 248B	Artificial Waterfowl Cavity Nesting Structures and their Value in Beltrami County
Nathaniel Larson	11:30 AM	Lower Memorial	Synthesis of Gd-complexes for the Recycling of Phosphate
Alaina Larson	11:30 AM	Lower Memorial	Can Less Be More:? Investigating Potential Relationships between Chemotherapy Drugs and NHE1 Inhibitors in
			Ovarian Cancer Treatment
Cassandra Larson	1:40 PM	HS 231	Holistic and Alternative Medicine
Emily Larson	11:30 AM	Lower Memorial	Growth Rate and Hatch Date of Age-O Fishes on Leech Lake, Minnesota Before Zebra Mussel Establishment
Mikayla Larson	11:30 AM	Upper Memorial	Mental Health Challenges in Division II Collegiate Athletes
Lowell Laudert	11:10 AM	HS 113	Fish House Rentals Through BSU Rec Center
Gavin Lewis	11:30 AM	Upper Memorial	From Australopithecus to Homo Sapiens
James Lincoln	11:30 AM	Upper Memorial	Waste-management and Technology
Ashley Locklear	10:30 AM	HS 228	The Application of Indigenous Ecological Knowledge (IEK) at Different Organizational/Institutional Levels
Kathryn Long	11:30 AM	Upper Memorial	Mental Health Advisory Board
Kathryn Long	1:20 PM	HS 214	Horse, Dog, or None: An Experimental Investigation of Animal-Assisted Learning
Hyzong Lor	11:30 AM	Lower Memorial	Determination of Iron and Malic Acid in Wine
Hyzong Lor	11:30 AM	Lower Memorial	Synthesis of Gadolinium-TREN-HIS-MAM for Phosphate Capture and Release
Adam Lovick	1:40 PM	HS 247	College Students Engagement on Social Media
Ryan Lundgren	11:30 AM	Upper Memorial	Environmental Impact Assessment of Bemidji Brewing
Jordan Lutz	10:50 AM	HS 228	BSU Solar Photovoltaic Potential
Jordan Lutz	11:10 AM	HS 228	Waste Reduction in Dining Services
Coleton Lynch	11:10 AM	HS 245	Exploring Link between Extracurricular and Living On Campus
Austin MacRae	11:30 AM	Lower Memorial	Caffeine and Magnesium Levels in Bigelow Green Tea and Black Tea
Austin MacRae	11:30 AM	Lower Memorial	Synthesis of Gd-complexes for the Recycling of Phosphate
Linsay Maddern	10:50 AM	HS 214	Social Sensation-Seeking Tendencies
Arica Mahliaire	11:10 AM	HS 231	Everyday Discrimination in Northern Minnesota
Arica Mahliaire	1:00 PM	HS 229	Cultivation - A Reading of Collected Creative Non-Fiction
Marcus Mahliaire	10:50 AM	HS 248A	Detecting the Role of TCL in Metastatic Melanoma
Daniela Maltais	11:30 AM	Lower Memorial	An Investigation of NHE1-Dependent Stress Fiber Formation and Migration
Daniela Maltais	11:30 AM	Upper Memorial	EEG Biofeedback: Promising Approach for Understanding and Treating ADHD
Daniela Maltais	1:40 PM	HS 214	Culture in Context: Effect of Feedback on Writing Performance of International Students
Roman Martushev	11:30 AM	Upper Memorial	Analyzing Airfare Pricing
Ryan McBrady	11:10 AM	HS 233	Study on Effective Management Methods of Leafy Spurge
Anthony McCartney	1:20 PM	HS 231	What Effects Does the TRIO Program Have on Students' Grade Performance?
Ciara McCarty	11:30 AM	Upper Memorial	Change in Harvest Distribution of Minnesota Banded Wood Ducks from 1991-2016
Alanna McLean	11:30 AM	Upper Memorial	The Human Visual System: Overcoming Ambiguity through Color
Shannon McNamara	11:30 AM	HS 228	Redefining Wolf Habitat Selection
Allie Mechtel	11:30 AM	Upper Memorial	Object Recognition Processes
Abrianna Mellesmoen	10:50 AM	HS 103	Tug-of-War: One Math Problem Challenges Multiple Abilities
Benjamin Miller	11:30 AM	Lower Memorial	Fecundity of Female Walleyes in the Red Lakes, Minnesota
Hunter Miller	11:30 AM	Upper Memorial	An Examination of the Relationship Between Public Land and Recreation in the United States.
Peyton Mills	10:30 AM	HS 230	President's Student Commission: Peer Mentorship
Cassandra Moffitt	1:00 PM	HS 247	Chasing the Elusive Ideal Group Project

NAME	TIME	ROOM	TITLE
Deuchester Mogeni	11:30 AM	Upper Memorial	Souls Throughout Cultures
Alex Moreno	11:30 AM	Upper Memorial	The Complexity of Recognizing, Reversing, and Monitoring our Overfishing Problem
Kayla Morey	11:30 AM	Lower Memorial	Growth Rate and Hatch Date of Age-0 Fishes on Leech Lake, Minnesota Before Zebra Mussel Establishment
Kenneth Morris	11:30 AM	Upper Memorial	Reduction of Greenhouse Gases by Replacing Fossil Fuels with Alternative Energy Sources
Nicholas Myre	11:30 AM	Upper Memorial	Should We Stop the Whining and Start the Mining?
Zoe Myrman	11:30 AM	HS 214	Seduced by Violence; A Look into the Domestic Violence Portrayed in Popular Media
Edward Neidviecky	11:30 AM	Upper Memorial	Our Water Needs To Be Saved
Danielle Nelson	11:30 AM	Upper Memorial	EEG Biofeedback: Promising Approach for Understanding and Treating ADHD
Jaymi Nelson	11:30 AM	Upper Memorial	Does A Nap Affect Insight Problem Solving Performance?
Ryan Ness	11:30 AM	Upper Memorial	Assessing Sentinel-2B derived NDVI and Forest Stand Characteristics Criteria for Modeling Quaking Aspen
			Health/Mortality in Northern Minnesota Ecoregions
Micheal Newton	8:30 AM	Beaux Arts	Trombone Quartet Performance
Alexander Nistler	11:30 AM	Upper Memorial	A Spatial Analysis of Tornado Activity and Lanscape in Minnesota
Alexander Nistler	11:30 AM	Upper Memorial	The Human Visual System: Overcoming Ambiguity through Color
Rachael Norton	10:50 AM	HS 113	Rural Market Research for Pinnacle Marketing Group
Sharmila Nowrang	11:30 AM	HS 248A	TCL Modulation of Vesicular Trafficking in HeLa Cells
Maria Ochoa Castillo	11:30 AM	Upper Memorial	Social Causes and Effects of Mercury Bioaccumulation in Northern Regions
Donelle Omer	11:30 AM	Upper Memorial	Mental Health Advisory Board
Anthony Orttel	10:30 AM	HS 233	Winter Feeding Behavior of the North American Porcupine in Northwest Minnesota
Alyssa Pajari	11:30 AM	Upper Memorial	Our Water Needs To Be Saved
Will Pappenfus	11:30 AM	Upper Memorial	The Effects of Fishing Organizations and Their Members' Lives
Joshua Pavek	11:30 AM	HS 229	FDR: America's Savior
Joshua Pavek	1:00 PM	HS 249	Tweets from the Bully Pulpit: President Trump's Twitter Habits and Popularity
Henry Pendleton	10:50 AM	HS 245	Police Misconduct and Use of Body Cameras
Opalina Peralta	11:30 AM	HS 249	How do Native American Candidates Win Elections in Non-Native Districts?
Matthew Perry	11:30 AM	Upper Memorial	Effects of De-icing Chemicals on Surface Water
Tanner Pletschett	11:30 AM	Upper Memorial	An Examination of Waterfowl Hunting and Populations in Key United States Flyways
Elizabeth Pouliot	11:30 AM	Upper Memorial	Object Recognition Processes
Nicholas Powers	11:30 AM	Upper Memorial	An Examination of Change in Whitetail Buck Harvest Rates in Zone 300 Before and After the Implementation of
			the "4 Points on One Side" Rule
Nikolus Preston	11:30 AM	Lower Memorial	Spatial Variation of Macroinvertebrates in a Bog Lake in NorthCentral Minnesota
Lauren Proels	1:20 PM	HS 214	Horse, Dog, or None: An Experimental Investigation of Animal-Assisted Learning
Camilla Prosise	11:30 AM	Upper Memorial	Arts of the Earth Festival
Kaerstin Quinlan	1:20 PM	HS 245	Open Textbooks at Bemidji State University
Mitschke Quinntin	1:00 PM	HS 245	Fitness, Nutrition, and Law Enforcement Officer Stress
Emily Raisbeck	11:30 AM	Upper Memorial	Property Tax Trends in the State of Wisconsin.
Ashley Ramm	11:30 AM	Upper Memorial	An Examination of Change Over Time: Bobcat Populations in Minnesota
Emily Rapp	11:30 AM	Upper Memorial	Environmental Impacts of Dams
Haley Rasmussen	1:00 PM	HS 233	Companion Planting for Sustainable Farming
Samuel Rausch	11:30 AM	Upper Memorial	A Spatial Examination of Near-Term Changes in Climate Patterns in Northeast Minnesota
Parker Rhodes	11:30 AM	Upper Memorial	Effects of De-icing Chemicals on Surface Water
Charity Ridlon	10:30 AM	HS 103	Growing Letters: The Five Representations of Algebra



NAME	TIME	ROOM	TITLE
Joseph Riley	11:30 AM	Upper Memorial	Extreme Lows in Monarch Butterfly Populations: Reversing the Trend
Timothy Roehrich	8:30 AM	Beaux Arts	Trombone Quartet Performance
Tristan Roehrig	11:30 AM	Upper Memorial	An Examination of Income and Hunting and Fishing Activity in the United States
Nathan Roggenbuck	10:50 AM	HS 214	Social Sensation-Seeking Tendencies
Nathan Roggenbuck	11:30 AM	Upper Memorial	An Analysis of Sleepwalking Using EEG
Brandi Roggenkamp	11:30 AM	Lower Memorial	Characterization of Mycobacteriophage Mirai
Kaija Roy	11:30 AM	HS 233	Summer Light and Temperature in a Small Lake
Sean Salfer	11:30 AM	Upper Memorial	Conservatives Across the Globe
Hailee Saxton	1:20 PM	HS 247	Examining the Strategies of Formation and Action Among Social Movements:
			A Comparison of the Civil Rights Movement and Black Lives Matter
Joseph Scanlan	11:30 AM	Upper Memorial	American Sports Culture
Daniel Scharfenberg	11:30 AM	Upper Memorial	How the Fall of Communism in Yugoslavia Lead to a Rise in Ethnic Nationalism and a
			Push for Independence/Aautonomy
Tanner Schmitz	10:30 AM	HS 248B	Artificial Waterfowl Cavity Nesting Structures and their Value in Beltrami County
Carolyn Schneider	11:30 AM	Upper Memorial	Object Recognition Processes
William Schneiderhan	11:30 AM	HS 113	Characteristics of Individuals Who Book Immersive Ecotourism Experiences
Michael Schumacher	11:10 AM	HS 113	Fish House Rentals Through BSU Rec Center
Mirthe Schuurmans	11:30 AM	Upper Memorial	Happiness Compared
Megan Severson	11:30 AM	Upper Memorial	Minnesota State Parks Visitor Use and Household Income
Jacob Shaughnessy	11:30 AM	Upper Memorial	Cultivation of Microalgae with Nitrifiers for Increase in Biomass
Drake Sime	1:00 PM	HS 248A	Detection of Palmitoylation of TCL via Click Chemistry
Beth Simons	10:30 AM	HS 248A	Cloning of Focal Adhesion Proteins to Identify TCL/Rho Interactors
Beth Simons	11:10 AM	HS 248A	IT IS ALIVE! Live-Cell Imaging of TCL and its deltaN Mutant
Haley Simonson	11:30 AM	Upper Memorial	Our Water Needs To Be Saved
Scott Smethers	10:30 AM	HS 230	President's Student Commission: Peer Mentorship
Chloe Smith	11:30 AM	Upper Memorial	An Examination in Sea Otter Population Changes Over Time
Daniel Sontowski	1:40 PM	HS 245	Working While Studying? Correlation Between Working and Students' GPA
Cody Sorenson	11:30 AM	Lower Memorial	Characterization and Isolation of the Mycobacteriophage KleverKiS
Rebecca Soukup	10:30 AM	HS 113	Discovering Karvakko, P. A.'s Brand Awareness with Potential Government Clients
Matthew Splittstoser	10:50 AM	HS 230	Are BSU Students Actively Involved in Student Clubs and Organizations: Why or Why Not?
Harold Stanius	11:30 AM	Upper Memorial	A Spatial and Temporal Analysis of the Relationship Between Gray Wolf and Elk Populations in Montana
Hank Steffen	10:50 AM	HS 247	Effects of Transferring Between Four Year Institutions
Ashley Stiglich	11:30 AM	Lower Memorial	Evaluating the Role of the Na+-H+ Exchanger Isoform 1 (NHE1) in Lysophosphatidic Acid and Urokinase-type
)			Plasminogen Activator Stimulation of Ovarian Cancer Cells
Jack Stigman	11:30 AM	Upper Memorial	Analyzing Airfare Pricing
Jarek Straub	10:30 AM	HS 245	The Delusion of Social Media Security
Grant Stuefen	10:50 AM	HS 248B	Deer Spotlight Surveys
Patrick Subialka	11:30 AM	Lower Memorial	White-Tailed Deer (Odocoileus virginianus) Population Estimation Using Scent Tracking Stations in Bemidji, M
Crystal Sucher	11:30 AM	Upper Memorial	Important Pollinator at Risk; A Spatial Analysis of the Rusty Patched Bumble Bee (Bombus affinis) Habitat in Minnesota
Michael Sveine	11:30 AM	Upper Memorial	Implications of EEG Use in Coma Patients
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NAME	TIME	ROOM	TITLE
Michael Sveine	11:30 AM	Upper Memorial	Object Recognition Processes
Colton Sveningson	11:30 AM	Upper Memorial	Cultivation of Microalgae with Nitrifiers for Increase in Biomass
Colton Sveningson	11:30 AM	Upper Memorial	Environmental Impacts of Dams
Colton Swanson	11:10 AM	HS 245	Exploring Link between Extracurricular and Living On Campus
Noah Swanson	11:30 AM	Upper Memorial	A Time Series Analysis of Post-secondary Enrollment.
Thor Swanson	11:30 AM	Upper Memorial	The Effects of Fishing Organizations and Their Members' Lives
Jesse Takkinen	11:30 AM	Upper Memorial	Environmental Impact Assessment of Bemidji Brewing
Mirabel Tamukong	11:30 AM	Upper Memorial	Designing a Monitoring Network for Hydorchemical Characterization of Aquifers on the
			Upper-Lower Red Lake Watershed
Elizabeth Thurlow	11:30 AM	Upper Memorial	Mental Health Advisory Board
Tessa Tindell	11:30 AM	HS 214	Seduced by Violence; A Look into the Domestic Violence Portrayed in Popular Media
Amanda Tran	11:30 AM	Lower Memorial	Synthesis of Gd-DETA-MAM to Capture Phosphates in Freshwater.
Colton Tretsven	1:40 PM	HS 113	Applied Project Management: Admissions Office Arcade Cabinet
Madeline Treuer	11:30 AM	HS 230	Facing Diversity at BSU: A Photographic Collaboration
Emily Tribby	11:30 AM	Upper Memorial	Environmental Impacts of Fracking
Jacob Urban	11:30 AM	Upper Memorial	Environmental Impacts of Fracking
Joseph Vatnsdal	10:30 AM	HS 245	The Delusion of Social Media Security
Mathieu Vezies	11:30 AM	Upper Memorial	Should We Stop the Whining and Start the Mining?
AmiJo Wadena	1:40 PM	HS 249	Beyond the Movement: State Action in Addressing Campus Sexual Violence
Harley Waller	11:30 AM	Upper Memorial	Facial Recognition
Clarice Wallert	1:40 PM	HS 248B	CHP2: A Potential Therapeutic Target for Treatment of Non-Small Cell Lung Cancer
Andrew Walock	10:50 AM	HS 113	Rural Market Research for Pinnacle Marketing Group
Matthew Wang	11:30 AM	Upper Memorial	A Spatial and Temporal Analysis of Population Change of Dabbling Ducks from 1997 to Present Data (2015)
Sam Wasnuk	10:30 AM	HS 113	Discovering Karvakko, P. A.'s Brand Awareness with Potential Government Clients
Nicholas Weidell	10:30 AM	HS 214	Determine Your Level of Empathy: Development of the Empathy Test
Hunter Weidenborner	11:30 AM	Lower Memorial	Burbot Activity in Relation to Light Penetration on Lake Bemidji, Minnesota
Emily Westemeier	10:50 AM	HS 248A	Detecting the Role of TCL in Metastatic Melanoma
Emily Westemeier	11:30 AM	Lower Memorial	Determination of Iron and Bisphenol A Levels in Beer
Jameson White	11:30 AM	HS 113	Characteristics of Individuals Who Book Immersive Ecotourism Experiences
Benjamin Wilander	11:30 AM	Lower Memorial	Synthesis of Gadolinium-TREN-HIS-MAM for Phosphate Capture and Release
Benjamin Wilander	1:00 PM	HS 248A	Detection of Palmitoylation of TCL via Click Chemistry
Benjamin Wilander	1:20 PM	HS 248A	Detection of Novel Rho GAP/GTPase Selectivities Using In Vitro Split-luciferase Assays
Chadwick Williams	10:30 AM	HS 214	Determine Your Level of Empathy: Development of the Empathy Test
Chadwick Williams	11:30 AM	Upper Memorial	EEG Biofeedback: Promising Approach for Understanding and Treating ADHD
Chadwick Williams	11:30 AM	Upper Memorial	Pet Partners: An Investigation of Animal-Assisted Activity
Chadwick Williams	11:30 AM	Upper Memorial	Rape Myths and Their Place in Society
Charles Wilson	1:00 PM	HS 113	Finding Correlations Between Family Dynamic and Childrens Acedemic Success
Kali Wood	10:30 AM	HS 214	Determine Your Level of Empathy: Development of the Empathy Test
Kali Wood	11:30 AM	Upper Memorial	EEG Biofeedback: Promising Approach for Understanding and Treating ADHD
Jacob Ylitalo	1:40 PM	HS 113	Applied Project Management: Admissions Office Arcade Cabinet
Minrui Zhu	11:30 AM	Upper Memorial	Deforestation of the Amazon Forest
Erik Ziegler	11:10 AM	HS 248B	Difference in Predator Sightings Based on Bait Type in Hobson Memorial Forest

Registration located in Memorial Hall front lobby.

Conference Schedule - April 4, 2018

TIME	EVENT	LOCATION	
8:30 - 9:00 a.m.	Keynote Breakfast Buffet	Beaux Arts, Main Ballroom	
9 - 10:15 a.m.	Keynote Address: Dr. Robert Youmans	Beaux Arts, Main Ballroom	IC
10:30 - 11:45 a.m.	Student Presentations - Morning Sessions Session 1: 10:30-10:45 a.m. 5 Minute Break Session 2: 10:50-11:05 a.m. 5 Minute Break Session 3: 11:10-11:25 a.m. 5 Minute Break Session 4: 11:30-11:45 a.m.	Hagg-Sauer Hall	OPEN TO THE PUBLIC
10:30 - 11:30 a.m.	Emeriti Social	David Park House INVITATION ON	LY
11:00 a.m 1:30 p.m.	Frybread Taco Sale	American Indian Resource Center Hosted by The Council of Indian Students	
11:30 a.m 1:00 p.m.	Poster Presentations Invitational displays from Design, Fine Arts & Music	Memorial Hall - Main Floor	OPEN TO THE PUBLIC
1:00 p.m 1:55 p.m.	Student Presentation - Afternoon Sessions Session 5: 1:00-1:15 p.m. 5 Minute Break Session 6: 1:20-1:35 p.m. 5 Minute Break Session 7: 1:40-1:55 p.m.	Hagg-Sauer Hall	OPEN TO