WEDNESDAY, APRIL 2, 2025

GREATE INNOVATE INSPIRE

Share your academic research or creative work with campus



HUNDREDS OF PROJECTS, INFINITE INSPIRATION

STUDENTIACHIEVEMENT 2025





STUDENT ACHIEVEMENT CONFERENCE – APRIL 2, 2025 CREATE, INNOVATE, INSPIRE

SCHEDULE OF EVENTS

9:30 to 10 a.m. Breakfast- Pastries, Potatoes, Bacon, Sausage, Eggs, Coffee, & Decaf, Hot Tea

10 to 11 a.m. Opening Ceremony-Keynote speaker Gary Johnson

https://minnstate.zoom.us/j/94595166627

11 to 12 p.m. Oral Presentations

12 to 1pm Lunch-Fried bread taco available for purchase @AIRC

1 to 2 p.m. Poster Presentations

2 to 3:30 p.m. Oral Presentations (Cont.)

The Online Poster Session will be available the entire day of the

conference via https://app.gather.town/app/YNznZh3EZ21s2AL5/BSU%20SAC%202025

Passcode: BSUSAC2025

OPFNING CFRFMONY

10 a.m. - 11 a.m.

- Bemidji State University's Land Acknowledgment
- Welcome Song: Nathaniel McDonald
- Welcome Video: Dr. John Hoffman, President
- 2025 Student Achievement Conference Poem:
- "An Artist's Eye" Eddie Anderson
- Keynote Speaker: Gary Johnson, Former CEO & General Manager, Paul Bunyan Communication https://minnstate.zoom.us/j/94595166627
- Closing Remarks: Dr. Travis Ricks

KEYNOTE SPEAKER GARY JOHNSON

Gary Johnson recently retired after a 36-year career in technology and telecommunications. He spent his entire career with Paul Bunyan Communications, Minnesota's largest not-for-profit broadband cooperative, where he started as a computer programmer. Gary held various technical and leadership roles leading up to his last 12 years as CEO, always focusing on the people and the technology enabling Internet, digital video, and broadband innovation.

Paul Bunyan Communications has received national recognition for their early adoption of fiber optics technology, aggressive rollout of the GigaZone – their advanced all-fiber multiple gigabit network, and their commitment to the rural communities they serve.

In addition to numerous roles with the cooperative, Gary was active in a number of local, state, and national industry organizations, serving in a variety of governance and leadership capacities. He continues his volunteer service to a number of local community organizations, including the United Way of Bemidji Area, Sanford Health of Northern Minnesota, and the Bemidji Rotary Club.

His commitment to both community and industry led to a number of awards and recognition including Minnesota State University Moorhead's Distinguished Alumni Award, NTCA – The Rural Broadband Association's Lifetime Achievement Award, Twin Cities Business magazine's 100 People to Know, and Rotary International's District Rotarian of the Year.

Gary is married to Denise, his wife of 35 years. They have three adult



An Artist's Eye

By Eddie Anderson

Perspective. (Noun.)

: A mental view or prospect.

The distance from a canvas, lambskin.

The muse of your someday-soon magnum opus, beautiful.

The reason you ever decided to write, politics.

Form. (Noun.)

: The shape and structure of something as distinguished from its material.

The rhythmic structure of a poem, heartbeat.

The placements in a still-life, artificial.

The marble skin of a stone-cold Roman, Venus.

Distance. (Noun.)

: An extent of space measured other than linearly.

The narrator speaking in dulcet tones, unreliable.

The calculation of ratio, golden.

The view of your television screen, fear.

Tone. (Noun.)

: Color quality or value.

The vulnerability of skin, crimson.

The multitudes of hatred, black.

The blues in the sky and sea, overwhelming.

Creator. (Noun.)

: One that creates, usually by bringing something new or original into being.

The life experiences that shape you, fiction.

The world you see, in all its shapes and colors, painting.

The meanings you piece together with every little word, poetry.

ORAL PRESENTATIONS

11:00 a.m. – 12:00 p.m.

HAGG-SAUER 150

11:00 - 11:15 a.m.

Title: The Humanities in Revolt: How Student Activism Reclaimed Higher

Education

Presenter: Darby Bersie Sponsor: John Ellis Facilitator: Bonner Karger

11:20 - 11:35 a.m.

Title: Student Voices, Administrative Silence: A Student Perspective on Leadership and Institutional Failures at Bemidji State University Presenter: Darby Bersie Sponsor: Danielle Sullivan Facilitator: Bonner Karger

11:40 - 11:55 a.m.

Title: The Importance of Cultural Capital and Funds of Knowledge Presenter: Angeline Harris Sponsor: Danielle Sullivan Facilitator: Bonner Karger

HAGG-SAUER 109

11:00 - 11:15 a.m.

Title: Incorporating Creative Writing in the Secondary Classroom Presenter: Chloe Luce

Sponsor: Danielle Sullivan Facilitator: Angela Fournier

11:20 - 11:35 a.m.

Title: Personality Development in Individuals with Dissociative Identity

Disorder

Presenters: Ashley MacNeil Sponsor: Sarah Cronin Facilitator: Angela Fournier 11:40 - 11:55 a.m.

Title: Understanding Attitudes About Sexual Misconduct at Bemidji State

University

Presenter: Malia Mains, Victoria Ames,

Gracy Yang, & Elijah Guist Sponsor: Judith Zatkin Facilitator: Angela Fournier

HAGG-SAUER 116

11:00 - 11:15 a.m.

Title: Toxicity of Oxycarboxin and 2DG on Pancreatic Cancer Cells

Presenters: Sophia Gruener & Cameron

Sponsor: Kjerstin Owens Facilitator: Kristina Cirks

11:20 - 11:35 a.m.

Title: Analysis of Porcupine Microbiota Through 16S rRNA Genomic Sequencing

Presenter: Shawn Martin

Sponsors: Kjerstin Owens & Mark Fulton

Facilitator: Kristina Cirks

11:40 - 11:55 a.m.

Title: The Next Step: Uncovering Pedagogical Impact in Online Environmental

Education

Presenters: Crystal Kastl Sponsor: Paul Kivi Facilitator: Kristina Cirks

HAGG-SAUER 214

11:00 - 11:15 a.m.

Title: Gadzooks!: Slang and Modernisms in Translation and Adaptation

Presenter: Liz Fisher Sponsor: Larry Swain

Facilitator: Miriam Rivera-Hokanson

11:20 - 11:35 a.m.

Title: Shakespeare and Musical

Adaptation

Presenter: Hannah Lewis Sponsor: Stephen Hamrick Facilitator: Miriam Rivera-Hokanson

11:40 - 11:55 a.m.

Title: Making A Better Drawer Pull Presenter: Joshua Wright Sponsor: Michael Lund

Facilitator: Miriam Rivera-Hokanson

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#1

Title: The Perceptions of Prisoners Based on Demographics of Participants

Presenter: Kaylee Schmidt

Sponsors: Judith Zatkin & Kristina Cirks

#2

Title: Student-Athletes and the Relationship Between Body Image, Performance Anxiety, and Disordered Eating

Presenter: Evelyn Hullopeter Sponsor: Judith Zatkin

#3

Title: Indigenous S.A.F.E. Screening

Presenter: Fawn Leslie Sponsor: Mark Baez

#4

Title: The Time of Semester as a Confound Variable Leading to Inconsistent Correlational Findings Between Belongingness and Other Variables of Interest

Presenter: Robert Mangiamele Sponsor: Travis Ricks

#5

Title: The Psychological Effects of Sport-Related Injuries on

NCAA Division I Student-Athletes Presenter: Alexia Waller Sponsor: Shannon Norman

#6

Title: The Structural, Intermediary, and Socioeconomic Inequities of the Indian Residential School System Across the Midwest

Region and Canada. Presenter: Savannah Martin Sponsor: Ashley Charwood

#7

Title: Examining the Social Determinates of Elder Housing / Homelessness in Beltrami County

Presenter: Jade Frenzel Sponsor: Ashley Charwood

#8

Title: Examining Pregnancy and Motherhood while Incarcerated. in Scott County Minnesota

ed, in Scott County Minnesc Presenter: Blue Fischer Sponsor: Ashley Charwood #9

Title: Examining Former and Current Incarcerated Individuals in

Ramsey County

Presenter: Alexia Lemke Sponsor: Ashley Charwood

#10

Title: Analyzing Homelessness and Housing Instability in Cass

County, Minnesota Presenter: Justin Wilson Sponsor: Ashley Charwood

#11

Title: Examining Social Determinants of Health of Sex Trafficking

in Koochiching County Presenter: Marissa Snell Sponsor: Ashley Charwood

#12

Title: Examining Substance Use and Abuse in Stearns County

Presenter: Madison Janssen Sponsor: Ashley Charwood

#13

Title: Examining Domestic Violence in Polk County

Presenter: Piper Glessing Sponsor: Ashley Charwood

#1*/*1

Title: Examining Parent and Children's Mental Health in Stearns

County

Presenter: Mikayla Schablin Sponsor: Ashley Charwood

#15

Title: Examining the Social Determinants in Youth Sex Traffick-

ing in Beltrami County Presenter: Brittyn Reierson Sponsor: Ashley Charwood

#16

Title: Examining Accessibility for Individuals with Disabilities in

Olmsted County, MN Presenter: Brynne Vaught Sponsor: Ashley Charwood

#17

Title: Examining the Social Determinants of Child Abuse and

Addition in Hennepin County Presenter: Allison Johnson Sponsor: Ashley Charwood

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The Online Poster Session will be available the entire day of the conference via https://app.gather.town/app/YNzn-zh3EZ21s2AL5/BSU%20SAC%202025

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#18

Title: The Structural Determinants of Health Inequities of Native

Americans in Minnesota Presenter: Marlena Hanson Sponsor: Ashley Charwood

#19

Title: The Impact of American Politics on Canadian Voters.

Presenter: Reilly Funk Sponsor: Patrick Donnay

#20

Title: The Impact of Name, Image, and Likeness Agreements on

Gender Equality in College Athletics Presenter: Aimee Christenson Sponsor: Patrick Donnay

#21

Title: Does Political Party Voter Contact Increase Voter Turnout?

Presenter: Cody Gunsalus Sponsor: Patrick Donnay

#22

Title: Attitudes Toward Political Censorship in Eastern and

Western Germany Presenter: Brandon Pionk Sponsor: Patrick Donnay

#23

Title: Deportation and Immigration Enforcement in the United

States: Analysis of Regional and Country Variations

Presenter: Exmond Ofori Sarpiah Sponsor: Patrick Donnay

#24

Title: The Disappearance of the Democratic Majority

Presenter: Reese Adkins Sponsor: Patrick Donnay

#25

Title: Admissions and Outcomes: Evaluating the Predictive Power

of the LSAT and UGPA Presenter: Lindsey McMonigal Sponsor: Patrick Donnay

#26

Title: The Affordable Care Act: Analyzing Rates of Healthcare

Claim Denial

Presenter: Lauren Sitter Sponsor: Patrick Donnay #27

Title: To What Extent is Social Media A Tool for Political Mobili-

Presenter: Bridget Westrum Sponsor: Patrick Donnay

#28

Title: Identity and Adoption: Attachment Styles

Presenter: Reagan Schwartzer Sponsor: John Perlich

#29

Title: Media Consumption Effects on College Students' Dietary

Choice

Presenter: Sylve Waters Sponsor: John Perlich

#30

Title: The Healing Within the Medicine Game: Co-Cultural Theory and Indigenous Identity in the Sport of Baaga'adowewin -

Lacrosse

Presenter: Alex Rivera

Sponsors: John Perlich & Timoth Baird

#3

Title: Alternative Media in Academia: Zines as Content & Creation

Presenter: Crystal Kastl Sponsor: Danielle Sullivan

#32

Title: Serving Seniors with Spanish

Presenter: Grace Kittel

Sponsor: Miriam Rivera-Hokanson

#33

Title: Northern Student Magazine

Presenters: Emma Niessink & Athena Hamann

Sponsor: Valica Boudry

#34

Title: Analysis of Forest Dynamics
Presenter: Gregory Gathje

Sponsors: Mark Fulton & Jerry Smith

#35

Title: Does More Equal Less? The Effects of Elevated Carbon Dioxide and Temperature on Native and Invasive Grasses Presenters: Sonia Alfieri, Swelepru Marma, & Janette Hanni

Sponsor: William Sea

#36

Title: Edible Plants and the Effect of Elevated Atmospheric Carbon Dioxide and Soil Temperature

Presenters: Alison McAghon, Selma Blees, Madison Zeiba, Joseph Votava, Amira Raukar, & Jerome Johnson

Sponsor: William Sea

#37

Title: Mapping Aquifer Layers and Assessing Surface-Groundwater Connectivity in the Shingobee River Watershed Presenters: Ashley Crowl, Jordyn Harvey, & Mikenna Pattrin Sponsor: Miriam Rios-Sanchez

#38

Title: Analysis of Aquifer Hydrodynamics in Response to Precipitation Events for Integrated Management of Surface Water in the Shingobee River Watershed, Minnesota Presenters: Sienna Houle & Parker Young

Sponsor: Miriam Rios-Sanchez

#39

Title: Comparative Analysis of Soil Health in Former Commercial Agriculture Lands at White Earth Tribal and Community College Presenters: Matty Bowstring, Raeanna Connor, Natalie Manypenny, Brent Murray, Bruce Turner, Asondra Weaver, & Delayna Heisler

Sponsors: Allen Derks & Miriam Rios-Sanchez

#**4**0

Title: Scavenger Activity on White-tailed Deer Carcasses; Implications for Prion Dispersal in Northern Minnesota

Presenter: Damon Cooper

Sponsors: Jacob Haus & Kristina Cirks

#11

Title: Scavengers and Implications for Prion Dispersal

Presenter: Damon Cooper

Sponsors: Jacob Haus & Kristina Cirks

#42

Title: The Relationship Between Plant Density and Microplastic Concentration in the Water in Lake Bemidji

Presenter: Arian Garcia Sponsor: Andrew Hafs

#43

Title: Toxicity of Oxycarboxin and 2DG on Pancreatic Cancer Cells Presenter: Cameron Thoe

Sponsor: Kjerstin Owens

#44

Title: Combination of SDH Inhibitors Decreases Pancreatic Cancer Cell Survival

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Presenter: Emily Wade Sponsor: Kjerstin Owens

±45

Title: Population Dynamics of Benthic Macroinvertebrates

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Utilizing Zebra Mussel Druses as Habitat Presenter: Amanda Schuermann Sponsor: Debbie Guelda

#46

Title: Evaluating the Roles of Rho Family GTPases in Basophilic

KU812 Cell Degranulation

Presenters: Dylan Cleveland & Robert Mangiamele

Sponsor: Michael Hamann

#47

Title: Investigating Binding of Plantoside Derivative Compounds

to Penicillin Binding Protein (PBP).

Presenters: Trevor Rohder & Thor Solien

Sponsor: Michael Hamann

#48

Title: Evaluating Interactions Between the Rho GTPase TCL and

Coronin2b Using Split-Luciferase Assays.

Presenters: Marlee Smith, Aleksandra Grigoryants, & Britta Lund

Sponsor: Michael Hamann

#49

Title: Characterization of Little Ben that Infects Mycobacterium

Smegmatis

Presenter: Andrew Rizea Sponsor: Holly LaFerriere

#50

Title: Isolation and Characterization of the Novel Bacteriophage

Jant and its Efficacy Against Mycobacterial Biofilms

Presenter: William Ketola Sponsor: Holly LaFerriere

#51

Title: The Isolation and Characterization of Bacteriophage

4JanetorGreg Presenter: Karl Miller

Sponsor: Holly LaFerriere

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#52

Title: Phage Therapy as a Solution to Antibiotic Resistance: Evaluating Bacteriophage KunnuSta and Vanarele Against Pseudomonas Aeruginosa Biofilms

Presenters: Colby Jelliff & Sydney White

Sponsor: Holly LaFerriere

#53

Title: A Study of Quantification of Vitamin C and Magnesium in a Women's Everyday Multivitamin.

Presenters: Emily Skime & Jenna Totzauer

Sponsor: Keith Marek

#54

Title: Analysis or Iron and Vitamin C in Supplement Capsules Presenters: Carissa Schultz & Jessica Harvey

Sponsor: Keith Marek

#55

Title: Determination of Caffeine in Prime Energy Drinks Presenter: Aydin Miller

Sponsor: Keith Marek

#56

Title: Computational Studies of the Reaction of Oxygen Atom with Propargyl Amine

Presenter: Derek Hoffman Sponsor: Bob Quandt

ŧ57

Title: Design, Synthesis, and Kinetic Analysis of an NBD-Coumarin

Probe for Selective Hydrogen Sulfide Detection Presenters: Nickolas Olson & Ryan J. Richard

Sponsor: Katie Peterson

#58

Title: Gd(III)-DO3Am-Benzyester for the Sequestration of

Bicarbonate

Presenters: Jack Larson, Caden Bolte, & Tristen Garner

Sponsor: Katie Peterson

#50

Title: Quantitative Comparison of Famotidine and Calcium in Pepcid Complete vs. Generic Dual Action Antacid Presenters: Jack Larson & Owen Dukowitz

Sponsor: Keith Marek

TECHNOLOGY, ART & DESIGN ACHIEVEMENT Memorial 260 1-2 p.m.

Graphic and Exhibit Design Portfolio Work

- Asia Anderson
- Jackson Struck
- Yeonwoo Kim
- Brigid Baier
- · Abigail Jensen
- Isabelle Hennen

Fine Art, Illustration, & MakerSpace Projects

- Zach Thureen
- Olivia Bakke
- Catarina Black

ORAL PRESENTATIONS (CONT.) 2 p.m. - 3:30 p.m.

HAGG-SAUER 150

HAGG-SAUER 214

2:00 - 2:45 pm

Title: How Using Problem Solving Activities Can Positively Contribute to Better Small Group Communication.

Presenters: Grace Wipson, Aiden Domski, Preston Garfin, & Matthew Greiner Sponsors: John Perlich & Donna

Pawlowski

Facilitator: Ruth Eckstrom

2:00 - 2:15 pm

Title: Abundance Narrative Project: Time

Capsule of Me (Online) Presenter: Allie Halseth Sponsor: Danielle Sullivan Facilitator: Gary Rees

2:20 - 2:35 pm

Title: Climate Activism Through

Storytelling

Presenter: Crystal Kastl Sponsor: Danielle Sullivan Facilitator: Gary Rees 2:40 - 2:55 pm

Title: Math Modeling: an Introduction for

Non-Mathematicians Presenter: Collin Ford Sponsor: Dinush Jayasooriya Facilitator: Gary Rees

ONLINE POSTER PRESENTATION 10 a.m.-5:00 p.m.

Online Address: https://app.gather.town/app/YNznZh3EZ21s2AL5/BSU%20SAC%202025 Passcode: BSUSAC2025

#1

Title: Integrating Funds of Knowledge to Engage Disengaged Students in Writing Presenter: Rhianna Tschida Sponsor: Danielle Sullivan

#2

Title: Promoting Funds of Knowledge and Cultural Capital: The

Game of Rez Life

Presenter: Crystal Holmberg Sponsor: Danielle Sullivan #3

Title: Funds of Knowledge Presenter: Miranda Ramirez Sponsor: Danielle Sullivan

#4

Title: Student Belonging through Creative Writing

Presenter: Grace Collins Sponsor: Danielle Sullivan

CAPITOL ROTUNDA PRESENTATION MARCH 20, 2025

#1

Title: The Time of Semester as a Confound Variable Leading to Inconsistent Correlational Findings Between Belongingness and Other Variables of Interest Presenter: Robert Mangiamele Sponsor: Travis Ricks

#2 *Outstanding Conference Poster Winner

Title: The Oppressive Social Determinants Fueling Low Mental

Health Among Black Youth in Ramsey County

Presenter: Jasmyn Moore Sponsor: Emily Paine

#3

Title: Playing the Medicine Game: Co-Cultural Theory and Indigenous Identity in the Sport of La crosse
Presenter: Alex Rivera
Sponsor: John Perlich

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Title: Characterization of Bacteriophage Little Ben that Infects Mycobacterium Smegmatis Presenter: Andrew Rizea Sponsor: Holly LaFerriere

#5

Title: The Effect of Zebra Mussels on Minnesota Fish Communities

Presenter: Benjamin Strei Sponsor: Andrew Hafs

#6 *Outstanding Conference Poster Winner Title: Navigating Imposter Syndrome from an Indigenous Iens at a PWI

Presenters: Olivia Verley & Taysha Curry

Sponsor: Sarah Cronin

#7

Title: The Relationship Between Plant Density and Microplastic

Concentration in the Water in Lake Bemidji, MN

Presenter: Arian Garcia Sponsor: Andrew Hafs

STUDENT ACHIEVEMENT DAY RECITAL

Wednesday, April 2, 2025, 7:30 pm Main Theater Bangsberg Fine Arts Complex

Scherzo No. 2 in B-flat minor, op. 31

Frédéric Chopin

(1810-1849)

Luke Bastian, piano

Concertino in Hungarian Style, op. 21

Oskar Rieding (1840-1918)

Connor Tollefson, violin

Dan Will, piano

Concertino for Bass Trombone

Eric Ewazen b. 1954

Andante con moto - Allegro vivace

John Kirk, bass trombone Dan Will, piano

Maya

lan Clarke

b. 1964

Kylee Beilke, flute Samantha Melberg, flute Dan Will, piano

"Ave Maria"

Giuseppe Verdi

from Otello (1813-1901)

Tamara Moore, soprano Dan Will, piano

" Una donna quindici'anni" from Cosí fan tutte

Wolfgang Amadeus Mozart

(1756-1791)

Johanna Engman, soprano Dan Will, piano

STUDENT ACHIEVEMENT DAY RECITAL

Wednesday, April 2, 2025, 7:30 pm Main Theater Bangsberg Fine Arts Complex

Wir wandelten, op. 96, no. 2

Johannes Brahms

(1833-1897)

Hannah Lewis, soprano Denise Laaveg, piano

"Be Kind and Courteous"

Benjamin Britten

from A Midsummer Night's Dream (1913-1976)

Helen Bartlett, soprano

Dan Will, piano

"Je dis que rien ne m'épouvante"

Georges Bizet

from Carmen

(1838-1875)

Hailee Colgrove, soprano

Dan Will, piano

Pace non trovo

Franz Liszt

from 3 Sonetti del Petrarca, S. 270a (First version)

(1811-1886)

Carson Binkley, bass Dan Will, piano

The Golden Age of the Xylophone

Floyd Werle (1929-2010)

Brady Kacon, xylophone

Dan Will, piano

BEMIDJI STATE UNIVERSITY UNIFIED BASKETBALL EXTRAVAGANZA 2025 Gillett Recreation Center • 10 a.m - 1:30 pm.

Students: Brooke Theis, Erin Barrette, Jana Swanson, Eli Coenen, Keaton Brill, Mason Cronk

Sponsor: Sherry Holloway & Kierstin Hoven



BEMIDJI STATE UNIVERSITY LAND ACKNOWLEDGMENT

We acknowledge that Bemidji State University is located on land and water that is the current and ancestral homeland of the Ojibwe and Dakota. We acknowledge the painful history of genocide, forced assimilation and efforts to alienate the Indigenous inhabitants from their territory here. We honor and respect the many diverse Indigenous peoples still connected to this land, retained tribal sovereignty, treaty rights and cultural resilience. Indigenous people are spiritual and physical caretakers of this land to which we all belong. Bemidji State University respects these sacred lands, stands with the community members from these Nations and will fight injustice in all its forms.





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