

4th Annual Minnesota Conference of
**UNDERGRADUATE SCHOLARLY
and CREATIVE ACTIVITY**
Monday April 13, 2015

Welcome to the Fourth Minnesota Conference of Undergraduate Scholarly and Creative Activity



Minnesota Undergraduate Research Council

Bemidji State University, Troy Gilbertson
Inver Hills Community College, David Higgins
Metropolitan State University, Jennifer Schultz
Minnesota State University Moorhead, Oscar Flores
Minnesota State University, Mankato, Carlos Panahon and Karla Lassonde
St Cloud State University, Carrie Barth
Southwest Minnesota State University, Emily Deaver
Winona State University, Mingrui Zhang and Michael Delong



It gives me great pleasure to introduce you to the Fourth Annual Undergraduate Scholars Conference, which celebrates undergraduate research at Minnesota State Colleges and Universities. The conference fosters collaboration and partnership among students and faculty across many of our campuses, and highlights their scholarly and creative accomplishments. Undergraduate students and their faculty mentors from seven universities and four community and technical colleges will meet in Winona to share their projects representing a broad set of disciplines.

Minnesota State Colleges and Universities provide students with an extraordinary education that meets their personal and career goals, enhances the quality of life for all Minnesotans, and sustains vibrant economies throughout the state. Hands-on research experience not only enable our students to participate in the process of discovery, it also builds curiosity, creativity, imagination, and teamwork. This annual conference makes a milestone for students to celebrate and share their discoveries and to celebrate the collaboration among our colleges and universities.

Thank you for participating in the 2015 MnSCU Undergraduate Scholars Conference.

A handwritten signature in black ink that reads "Steven Rosenstone". The signature is fluid and cursive, with a large, sweeping initial "S" and "R".

Steven Rosenstone

Chancellor, Minnesota State College and Universities



Welcome to the fourth annual MnSCU Undergraduate Scholars Conference. It is a great honor for Winona State University to host this conference. It is our hope that the presence of this event on the campus of WSU will aid in the continued growth and success of undergraduate research throughout MnSCU.

Winona State University holds, as part of our mission, to be “a community of learners improving our world.” This is reflected in our commitment to undergraduate research across the entire campus. This community begins with the collaboration of an undergraduate student and faculty mentors as they work to address issues relevant to their discipline. The community grows through students sharing their work with other students, faculty, and citizens of the Winona area at our annual Judith Ramaley Celebration of Research and Creative Scholarship, which is now in its 9th year. This year, we have the good fortune to expand this community to other students and faculty within the MnSCU system! Our hosting the conference will further instill the significance of undergraduate research across our campus and beyond through the exchange of ideas, methods, and views of the many fields of study found across our campuses.

We are proud to host the MnSCU Undergraduate Scholars Conference and committed to doing our part in making this conference a showcase that demonstrates the value of research to our educational programs.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Olson". The signature is fluid and cursive, written in a professional style.

Scott R. Olson
President, Winona State University

Acknowledgement



This event would have not been possible without support provided at Winona State University and the administration, staff, and faculty of MnSCU and our sister institutions. Thanks to President Scott Olson and Provost Pat Rogers for providing financial support and for their commitment to undergraduate research. We are also very appreciative of the continued support by John O'Brien and Lynda Milne of the MnSCU office of Academic and Student Affairs. Ann Durley and Blandine Berthelot, WSU Office for Camps and Conferences, provided all logistical support from registration to campus housing (and everything in between). Joe Reed, Stephanie Smidt, and Toni Zaborowski, Student Union, provided excellent support in helping us identify the best spaces to use for the symposium and were tolerant of modifications made along the way. Sarah Delano, Marketing and Communications, built and maintained the symposium website and we also thank her for the many additions we requested along the way. Pat Malotka, Creative Services, design and lay out of this program. As always, the staff of Facilities Services provided excellent support setting up the event. We also thank Tom Hill and Stephanie Stango, Teaching, Learning, and Technology Services for ensuring that all technology used for the event was in good working order and Doug Johnson, IT Services, for the use of laptops for student presentations.

Of course, the symposium would not be possible without the students and faculty of the MnSCU institutions for their commitment to quality education and the initiative to engage research and creative scholarship as part of the educational experience. This includes the members of the MnSCU Undergraduate Scholar organizing council whose insights and passion for undergraduate research and scholarships have developed and sustained this celebration of our students.

Sincerely,

Mingrui Zhang, Ph. D.
Professor of Computer Science

Michael Delong, Ph.D.
Professor of Biology
Director of Large River Studies Center

SUNDAY, APRIL 12TH

6:00 – 8:00 p.m. Check-in
Prentiss Hall

MONDAY, APRIL 13TH

7:30 a.m. – 12:00 p.m. Check-in
Kryzsko Commons, East Hall

7:30 a.m. – 8:45 a.m. Poster set up
Kryzsko Commons, East Hall

7:45 a.m. – 8:45 a.m. Welcome and Breakfast
Kryzsko Commons, East Hall

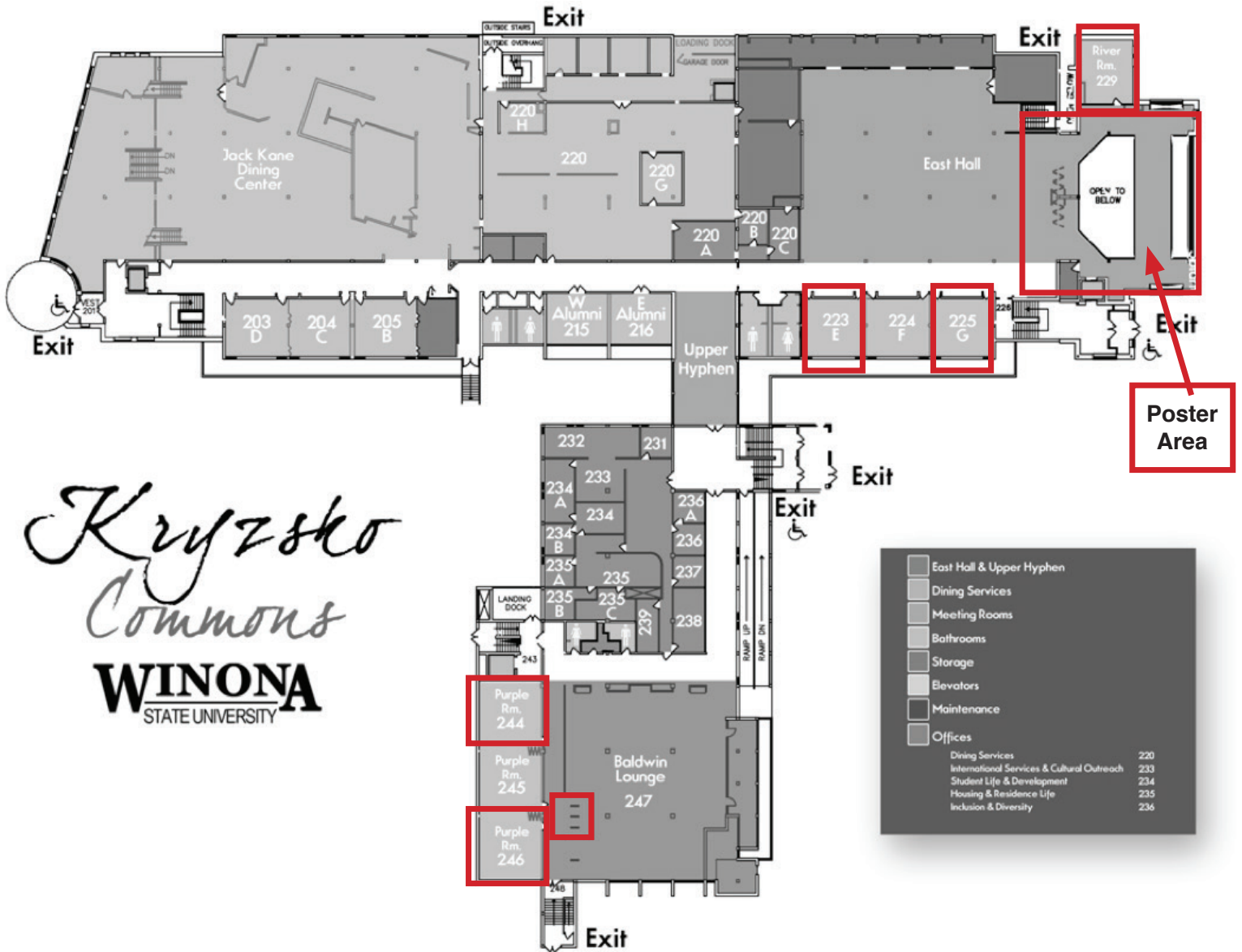
8:45 a.m. – 10:15 a.m. Oral Session I
Rooms 223, 225, 244, 246, 252 & River Room

10:15 a.m. – 11:45 a.m. Poster Session I
Kryzsko Commons, East Hall

11:45 a.m. – 12:30 p.m. Lunch Break
Kryzsko Commons, East Hall

12:30 p.m. – 2:00 p.m. Oral Session II
Rooms 223, 225, 244, 246, 252 & River Room

2:00 p.m. – 3:30 p.m. Poster Session II
Kryzsko Commons, East Hall



Room 223**Moderator: Emily Deaver**

PRESENTATION #19: *Variation in Turtle Capture Rates over Summer Months in Clay County, Minnesota*, **Scott Buchholz and Blair Posusta**

PRESENTATION #119: *A Genetic Based Approach to Management and Stocking of Muskellunge*, **Douglas Zentner**

PRESENTATION #106: *Migration and Size Variance of Larval Northern Pike (*Esox lucius*) in the Tamarack River*, **Nathan Stott**

PRESENTATION #40: *Fossil Fuel Free Fish House*, **Hunter Edberg and Randall Riehl**

PRESENTATION #50: *Quantification of Phenolics in Kombucha Tea*, **Patrick Hager**

PRESENTATION #123: *Xenopus Embryo Development upon Exposure to Downstream Water from an Effluent Plant*, **Jaden Witt**

Room 225**Moderator: Laura McCauley**

PRESENTATION #4: *Temperatures of 2-D Rings*, **Brandon Allen**

PRESENTATION #74: *Uprights*, **Robert Mahrer**

PRESENTATION #63: *RPG Grid Brawl: A Study of Artificial Intelligence Using a Board Game*, **Jackson Kisling**

PRESENTATION #49: *Right Tetrahedron: Pythagorean Quadruples*, **Shrijana Gurung**

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PRESENTATION #117: *Literate Language Features in the Procedural Narratives of African-American and European-American 5th Graders*, **John Zehnder**

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PRESENTATION #75: *The Communist and Democratic Influence on Russian Ballet: From the Soviet Union to Russia*, **Brenda Martinson**

PRESENTATION #1: *Effect of different Factors on the Number of Photovoltaics Installation in the US*, **Iwnetim Abate**

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PRESENTATION #87: *Children as Monsters are the Products of Society*, **Kyle Olsen**

PRESENTATION #68: *St. Marina: A Lesson in Spiritual Endurance*, **Samantha Koshowany-Wilken**

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PRESENTATION #7: *“I am a gym-goer”*: *Self-as-Doer Identity Predicts Physical Activity Behaviors*, **Claire Arvidson and Courtney Swanson**

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Minnesota State University Moorhead

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Iwnetim Abate

Matthew Craig (Faculty mentor)

Minnesota State University Moorhead

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Format: Oral

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Fayaz Ahmed

Steven Losh,(Faculty Mentor)

Department of Geology, Minnesota State University,
Mankato

Modeling Of Petroleum Generation, Williston Basin, North Dakota

Format: Oral

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Brandon Allen

Joyati Debnath (Faculty Mentor)

Department of Mathematics, Winona State University

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Jeffrey W. Bell (Faculty Mentor)

Exercise Science Program, Southwest Minnesota State University

The Effects of Teleoanticipation on Power in Powerlifters

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Rayne Anderson

David Higgins (Faculty Mentor)

English, Inver Hills Community College

Biblical Influences on MLK's "I Have a Dream" Speech

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Claire Arvidson and Courtney Swanson

Amanda M. Brouwer (Faculty Mentor)

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Sumiko Otsubo (Faculty Mentor)

History Department, Metropolitan State University

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English, Inver Hills Community College

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Ryan Berres

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Winona State University

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Devan Bierbrauer

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Kevin Brom

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Social Work Department, Metropolitan State University
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Karla Lassonde (Faculty Mentor)

Department of Psychology, Minnesota State University, Mankato

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Kara Lindaman (Faculty Mentor)

Department of Political Science, Winona State University

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Format: Poster

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David Higgins (Faculty Mentor)

English, Inver Hills Community College

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Alice Chan

Heather Sklenicka (Faculty Mentor)
Chemistry, Rochester Community and Technical College
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Alexa Chouinard

Julie Kerr-Berry (Faculty Mentor)
Department of Dance, Minnesota State University,
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Environmental Science Program, Southwest Minnesota
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Tad Dolphay

Sarah Phan-Budd (Faculty Mentor)
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High Energy Physics Department
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Amber Dorr

John Gonzalez (Faculty Mentor)
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Michael Doyle

Kuldeep Agarwal (Faculty Mentor),
Department of Automotive Manufacturing Technology,
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Format: Oral

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Brianna Droubie and Kelly Douglas

Amanda Winrow (Faculty Mentor), Department of
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Format: Poster

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Jessica Dulz and Randall Riehl

Keith Gora (Faculty Mentor)

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Hunter Eder and Randall Riehl

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Ashley Eder and Benjamin LeMay

Brian Wisenden (Faculty Mentor)

Minnesota State University Moorhead

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Format: Poster

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Marilyn Evenmo

Alisa Eimen (Faculty Mentor)

Department of Art, Minnesota State University, Mankato

*An Overview of Evidence Supporting Primary Production
of Glassware in Amarna, Egypt*

Format: Oral

PRESENTATION #44

Amanda Goedeke

Maureen O'Brien and , Glenn Davis (Faculty Mentor)

History & English, St Cloud State University

*Saint Margaret, Queen of Scotland, and the Benedictine
Rule*

Format: Oral

PRESENTATION #45

Jessica Cole and Shelby Flegel

Emily Stark (Faculty Mentor)

Department of Psychology, Minnesota State University,
Mankato

*Detecting deception: How do people distinguish between
truth-tellers and liars?*

Format: Poster

PRESENTATION #46

Amber Godfrey

Heather Sklenicka (Faculty Mentor)

Chemistry, Rochester Community and Technical College

*Phycocyanin Fluorescence in the Denaturing of
Phycobiliproteins in the Laboratory Setting for Allied
Health Students*

Format: Oral

PRESENTATION #47

Shandy Giron

David Higgins (Faculty Mentor)

English, Inver Hills Community College

The Little Mermaid and the Fear of Change

Format: Oral

PRESENTATION #48

Melanie Graves and Ben Keilholtz

Rafael Narvaez (Faculty Mentor)

Department of Sociology, Winona State University

*Media Usage and Learning Outcomes among Sociology
Students*

Format: Poster

PRESENTATION #49

Shrijana Gurung

Damiano Fulghesu (Faculty Mentor)

Minnesota State University Moorhead

Right Tetrahedron: Pythagorean Quadruples

Format: Oral

PRESENTATION #50

Patrick Hager

Francis M. Mann (Faculty Mentor) Department of

Chemistry, Winona State University

Quantification of Phenolics in Kombucha Tea

Format: Oral

PRESENTATION #51

Daniel Heerema

Heather Sklenicka (Faculty Mentor)
Chemistry, Rochester Community and Technical College
*Carbohydrates and Artificial Sweeteners: A New Optical
Rotation Laboratory for Allied Health Students*
Format: Poster

PRESENTATION #52

Colin Helfenstein

Andrew Conteh (Faculty Mentor)
Minnesota State University Moorhead
Present-Day Imperialism
Format: Oral

PRESENTATION #53

Samantha Holien

Timothy Secott (Faculty Mentor)
Department of Biology, Minnesota State University,
Mankato
*Classroom Prevalence of Methicillin Resistant Coagulase-
Negative Staphylococcus Species Isolated Students*
Format: Poster

PRESENTATION #54

**Emily Homan, Mike Krug, Sarah Swanson, Jacob
Stock and Kyler Steffe**

Tamara Berg (Faculty Mentor)
Women's, Gender, & Sexuality Studies Program, Winona
State University
*The Precarity of Safety: Bystander Intervention Praxis as a
Challenge to Systemic Violence on Campus*
Format: Poster

PRESENTATION #55

Sarah Hopfner

Mark Mechelke (Faculty Mentor)
Chemistry and Biochemistry, St Cloud State University
*Design and Synthesis of a Novel Indanone
Chemotherapeutic Agent*
Format: Poster

PRESENTATION #56

Sean Hudson

David Higgins (Faculty Mentor)
English, Inver Hills Community College
Masculinity in the Shawshank Redemption
Format: Oral

PRESENTATION #57

Ethan Huffington

Amy Runck (Faculty Mentor)
Biology Department, Winona State University
*Seasonal hemoglobin gene expression in tiger salamanders
(Ambystoma tigrinum)*
Format: Poster

PRESENTATION #59

Shruti Jagannathan

Latha Ramakrishnan (Faculty Mentor)
Chemistry and Biochemistry, St Cloud State University
*Analyzing the Pharmacological Effects of Picrotoxin
in Regenerating and Intact Dugesia Tigrina (Planaria)
Worms*
Format: Poster

PRESENTATION #60

August Kammüller

David Higgins (Faculty Mentor)
English, Inver Hills Community College
*A War on Two Fronts: Historic Competition Illustrated
Through the Nissan GT-R and Chevrolet Corvette*
Format: Oral

PRESENTATION #61

Sean Kelley

Joan Francioni (Faculty Mentor)
Department of Computer Science, Winona State University
*Energy Use Implications of Responsive Design Websites on
Mobile Devices*
Format: Poster

PRESENTATION #62

Benjamin J. Keute

Stephen T. Allard (Faculty Mentor) Department of
Geoscience, Winona State University
*Passive Folding Model for Deformation of Nemo Group
During Final Suturing of the Wyoming and Superior
Province, NE Black Hills, South Dakota*
Format: Poster

PRESENTATION #63

Jackson Kisling

Ryan Hankins (Faculty Mentor)
Department of Information and Computer Science,
Metropolitan State University
*RPG Grid Brawl: A Study of Artificial Intelligence Using a
Board Game*
Format: Oral

PRESENTATION #65

Kaylie Knipe

David Higgins (Faculty Mentor)
English, Inver Hills Community College
Better Than You: America's Distaste for The Mentally Disabled
Format: Oral

PRESENTATION #66

Alex Koerber

Stephen T. Allard (Faculty Mentor) Department of
Geoscience, Winona State University
*Interpreting variably-oriented folds within the Nemo Shear
Zone, northeast Black Hills, South Dakota*
Format: Poster

PRESENTATION #67

Debra Koenig

David Higgins (Faculty Mentor)
Psychology, Inver Hills Community College
Why do people become bullies?
Format: Oral

PRESENTATION #68

Samantha Koshowany-Wilken

Maureen O'Brien and Glenn Davis (Faculty Mentor)
History & English, St Cloud State University
St. Marina: A Lesson in Spiritual Endurance
Format: Oral

PRESENTATION #69

Lynda LaFond

Elizabeth Rave (Faculty Mentor)
Bemidji State University
*Effects of Three Land Management Regimes on Small
Mammal Abundance at Grand Forks Air Force Base,
North Dakota*
Format: Poster

PRESENTATION #70

Julia Lautizi and Trae Boldthen

Kevin Filter (Faculty Mentor), Department of Psychology
Minnesota State University, Mankato
Subgroup Pro-Ana
Format: Oral

PRESENTATION #71

You Na Lee and Jaeyoung Son

Rachel Cohen (Faculty Mentor)
Department of Biology, Minnesota State University,
Mankato
*Effect of steroid hormones on neurogenesis in the brain of
the green anole lizard.*
Format: Poster

PRESENTATION #72

Benjamin Lencowski

David Higgins, Faculty Mentor
English, Inver Hills Community College
American Sniper and Self Loathing
Format: Oral

PRESENTATION #73

Hunter Ludwig and Tad Joel

Kuldeep Agarwal (Faculty Mentor)
Department of Automotive Engineering Technology,
Minnesota State University, Mankato
*Wear properties of 3D printed Stainless Steel-Bronze
Composite*
Format: Poster

PRESENTATION #74

Robert Mahrer

Gary Mead (Faculty Mentor)
Department of Automotive Engineering and Technology,
Minnesota State University, Mankato
Uprights
Format: Oral

PRESENTATION #75

Brenda Martinson

Julie Kerr-Berry (Faculty Mentor)
Department of Dance, Minnesota State University,
Mankato
*The Communist and Democratic Influence on Russian
Ballet: From the Soviet Union to Russia*
Format: Oral

PRESENTATION #76

Alexis McCall

Daniel Moen (Faculty Mentor)
Department of Family Consumer Science
Minnesota State University, Mankato
*How Rural Families Cope when a Loved one is Diagnosed
with an Eating Disorder*
Format: Poster

PRESENTATION #77

Krista Migneault

David Higgins (Faculty Mentor)
English, Inver Hills Community College
Budget Surpluses of the 1990's
Format: Oral

PRESENTATION #78

Linda McBrayer

Sumiko Otsubo (Faculty Mentor)
History Department, Metropolitan State University
*Sex-selective abortion, eugenics, and embodied citizenship
in post-independence India*
Format: Oral

PRESENTATION #79

Angela Miller, Ashley Forman, Daniel Gitto and Alex Russell

Amanda M. Brouwer and John C. Johanson (Faculty Mentors)
Winona State University
"Are there things that we missed?": A Qualitative Exploration of Experiences of Academic Achievement in Collegiate Athletes
Format: Poster

PRESENTATION #80

Abdihakim A. Mohamoud, Mary Soderlund, Abigail Schraufnagel and Rachel Dahl

Osvaldo Martinez (Faculty Mentor)
Biology Department, Winona State University
Establishment of a system using THP-1 human monocytes to distinguish between myeloid differentiation primary response gene 88 dependent or independent pathogen associated molecular pattern signaling
Format: Poster

PRESENTATION #82

Rachel Munson

Larry Swain (Faculty Mentor)
Bemidji State University
The Boar-Image in Medieval Scandinavia
Format: Oral

PRESENTATION #83

Patricia Muras, Troy Salewske, Devan Solheid, Erica Stiller and Mai Nou Yang

Jana Craft (Faculty Mentor)
Business Administration, Winona State University
Non-Profits: Where Should We Donate our Dollars?
Format: Poster

PRESENTATION #84

Jennifer Nelson and Lauren Bennewitz

Kathy Bertsch (Faculty Mentor)
Department of Psychology, Minnesota State University, Mankato
Special Education Teacher Training and Knowledge of Behavior Assessment and Intervention Practices
Format: Oral

PRESENTATION #85

Christopher M. Nicosia

Stephen T. Allard (Faculty Mentor) Department of Geoscience, Winona State University
Petrologic and Geochemical Characterization of Archean Gneisses in the Little Elk Terrane, Black Hills, South Dakota
Format: Poster

PRESENTATION #86

Judith Ohochukwu

Amanda M. Brouwer (Faculty Mentor)
Winona State University
The Role of Resiliency in Stress and Coping Styles
Format: Poster

PRESENTATION #87

Kyle Olsen

David Higgins (Faculty Mentor)
English, Inver Hills Community College
Children as Monsters are the Products of Society
Format: Oral

PRESENTATION #88

Alix M. Overgard

Thomas W. Nalli (Faculty Mentor) Department of Chemistry, Winona State University
GC-MS Analysis of Phytosterol Content of Dried Mushrooms
Format: Poster

PRESENTATION #89

Gilbert Penaherrera

Derek Webb (Faculty Mentor)
Bemidji State University
Pursuing the Saddle Point: Social Science vs. Natural Sciences
Format: Oral

PRESENTATION #90

Kira Perez

Jennifer L. Schultz (Faculty Mentor)
College of Management, Human Resource Management,
Metropolitan State University
Music in the Workplace
Format: Poster

PRESENTATION #91

Daniel Perno

Lori Halverson-Wente (Faculty Mentor) Department of
Communication, Rochester Community and Technical
College
*Intercultural Communication, Service Learning, and the
Study of Poverty Abroad*
Format: Oral

PRESENTATION #92

Anh Pham

Dorothy Wrigley (Faculty Mentor)
Department of Biology, Minnesota State University,
Mankato
*Survival of *Verminophrobacter* in amputated worm tails*
Format: Poster

PRESENTATION #93

Angelina Pirozzoli and Madeline Podgorak

Maureen Gerson and Amy Reitmaier Koehler (Faculty
Mentors)
Department of Nursing, Winona State University, Winona
*Palliative Care Knowledge and Self-Efficacy within a
Baccalaureate Nursing Program: Phase 2*
Format: Poster

PRESENTATION #94

**Allison Rasmussen, Anthony Alexander and Meagan
Schroeder**

Rafael Narvaez (Faculty Mentor)
Department of Sociology, Winona State University
*Media Usage and Learning Outcomes among Sociology
Students*
Format: Poster

PRESENTATION #95

Austin Rau

Cynthia Miller (Faculty Mentor)
Department of Geography, Minnesota State University,
Mankato
Minnesota and the Logistics of Bakken Crude Oil
Format: Poster

PRESENTATION #96

Jessica Reich

Alisa Eimen (Faculty Mentor)
Department of Art, Minnesota State University, Mankato
Monstrosity from the Medieval to the Renaissance
Format: Oral

PRESENTATION #97

Samantha Ritter

Frank Schindler (Faculty Mentor)
Chemistry Program
Emily Deaver & Thomas Dilley (Faculty Mentors)
Environmental Science Program
Southwest Minnesota State University
*Evaluation of the intrinsic surface charge of a layered
silicate soil*
Format: Poster

PRESENTATION #98

Allison Rogich

Heather Sklenicka (Faculty Mentor)
Chemistry, Rochester Community and Technical College
Exploration and Analysis of Lipid Content in Canine Food
Format: Poster

PRESENTATION #99

Marten Salfer

Marianne Zarzana (Faculty Mentor)
Creative Writing Program, English Department, Southwest
Minnesota State University
A Fantasy Farmer
Format: Oral

PRESENTATION #100

Kaley Sceaux and Megan Evert

Jeffrey W. Bell (Faculty Mentor)
Exercise Science Program, Southwest Minnesota State
University
*Functional Movement Screening in Active and Sedentary
Men and Women*
Format: Poster

PRESENTATION #101

Johannah Scheu

Elizabeth Kirchoff (Faculty Mentor)
Minnesota State University Moorhead
*Student Ratings of Female Professors with Foreign-
Accented Speech at Minnesota State University Moorhead*
Format: Oral

PRESENTATION #102

Dustin Schulte

Jeffrey W. Bell (Faculty Mentor)
Exercise Science Program, Southwest Minnesota State
University
*Differences in Health and Skill Related Physical
Measurements Between Forwards and Backs on the SMSU
Men's Rugby Team*
Format: Poster

PRESENTATION #103

**Ashley T. Shuck, Elizabeth C. Daniels, Alix M.
Overgard and Reid L. Hein**

Myoung Lee (Faculty Mentor)
Department of Chemistry, Winona State University
*Effect of Antidiabetic Agent Metformin and its Structural
Analogues on the in vitro Glycation of Bovine Serum
Albumin*
Format: Poster

PRESENTATION #104

Farhiya Soldad

David Higgins (Faculty Mentor)
English, Inver Hills Community College
Who do we blame for genocidal hatred?
Format: Oral

PRESENTATION #105

Sheryl I. Stephenson

Stephen Allard (Faculty Mentor)
Department of Geoscience, Winona State University
*Investigating Shear-heating Model for Leucogranite
Generation within Archean Basement, Black Hills, South
Dakota*
Format: Poster

PRESENTATION #106

Nathan Stott

Andrew Hafs (Faculty Mentor)
Bemidji State University
*Migration and Size Variance of Larval Northern Pike
(Esox lucius) in the Tamarack River*
Format: Oral

PRESENTATION #107

Olaf Summers and Briana Bruske

Heather Sklenicka (Faculty Mentor)
Chemistry, Rochester Community and Technical College
*Toward a comprehensive integration of calorimetry across
the curriculum*
Format: Poster

PRESENTATION #109

Elisabeth Teige and Angela Kooren,

Donna Stockrahm (Faculty Mentor)
Minnesota State University Moorhead
*Urban Turkeys: Use of a Random, Stratified Survey of
Homeowners in the Fargo (ND)-Moorhead (MN) Area
to Estimate Turkey Distributions and Numbers, Human-
Turkey Interactions, and Public Opinion on Turkeys*
Format: Poster

PRESENTATION #112

Julie Velasquez

David Higgins (Faculty Mentor)
English, Inver Hills Community College
Money and Social Class in Titanic and The Purge
Format: Oral

PRESENTATION #113

Amanda Weiss and Melissa Kohout

Maija Sipola (Faculty Mentor)
Department of Geology, Minnesota State University,
Mankato
*XRF Geochemical Analysis of the Ngandong
Paleoanthropological Site in Java, Indonesia*
Format: Poster

PRESENTATION #114

William White and Dominic Tunison

Kuldeep Agarwal and Winston Sealy (Faculty Mentors)
Department of Manufacturing Engineering Technology,
Minnesota State University, Mankato
Low Cost Welding based Metal 3d Printer
Format: Poster

PRESENTATION #115

Jessica Wiswell and Nicole Thompson

Kevin Filter (Faculty Mentor)
Department of Psychology
Minnesota State University, Mankato
*Comparing the Reliability and Sensitivity of Observational
Systems for Postive Behavior*
Format: Oral

PRESENTATION #116

Jane White

Jill Stackhouse (Faculty Mentor)
Bemidji State University
*Labor Exploitation in Juarez, Mexico: Gender Issues in
the Maquiladoras*
Format: Oral

PRESENTATION #117

John Zehnder

Megan Mahowald (Faculty Mentor)
Department of Communication Disorders
Minnesota State University, Mankato
*Literate Language Features in the Procedural Narratives
of African-American and European-American 5th Graders*
Format: Oral

PRESENTATION #118

John Zehnder

Adriana Gordillo (Faculty Mentor) Department of
World Languages
Minnesota State University, Mankato
*The Garden of Forking Opinions: Lugones and
Borges on Science*
Format: Oral

PRESENTATION #119

Douglas Zentner

Andrew Hafs (Faculty Member)
Bemidji State University
*A Genetic Based Approach to Management and
Stocking of Muskellunge*
Format: Oral

PRESENTATION #120

Pengyu Qian

Eduardo Pablo (Faculty Mentor)
Minnesota State University Moorhead
*Country Risk and its Effects on Institutional Investment
Fund Flows: Evidence from Mexico*
Format: Poster

PRESENTATION #121

Pratik Dahal

Damiano Fulghesu (Faculty Mentor)
Minnesota State University Moorhead
The Isoperimetric Inequality
Format: Oral

PRESENTATION #122

Tianxia Jia

Joyati Debnath (Faculty Mentor)
Winona State University
Visualizing Elementary Complex Functions
Format: Oral

PRESENTATION #123

Jaden Witt

Ellen Brisch, Shawn Garrett and Patricia Wisenden (Faculty
Mentors)
Minnesota State University Moorhead
*Xenopus Embryo Development upon Exposure to
Downstream Water from an Effluent Plant*
Format: Oral

