6th Annual Minnesota Conference of UNDERGRADUATE SCHOLARLY and CREATIVE ACTIVITY
Monday April 3, 2017
It gives me great pleasure to introduce you to the Sixth Annual Undergraduate Scholars Conference, which celebrates undergraduate research at Minnesota State Colleges and Universities. The conference fosters collaboration and partnership as undergraduate students and faculty mentors from nine universities and three community and technical colleges meet in Winona to share projects from a broad range of disciplines.

Our 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 communities throughout the state. Hands-on research experience not only enables our students to participate in the process of discovery, it also builds curiosity, creativity, imagination, and teamwork.

This annual conference marks 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 2017 MN State Undergraduate Scholars Conference.

Steven Rosenstone
Chancellor, Minnesota State College and Universities
Welcome to the Sixth Annual MN State 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 MN State.

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 11th year. This year, we have the good fortune to expand this community to other students and faculty within the MN State 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 MN State 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,

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 MN State and our sister institutions. Thanks to President Scott Olson and Provost Pat Rogers for providing financial support and for their commitment to undergraduate research. Ann Durley and Blandine Berthelot, WSU Office for Camps and Conferences, provided all logistical support from registration to campus housing (and everything in between). Stephanie Smidt, Student Union, provided excellent support in helping us identify the best spaces to use for the conference and were tolerant of modifications made along the way. Patricia Malotka and Sarah Delano, Marketing and Communications, designed the conference program, built and maintained the conference website, and we also thank them for the many additions we requested along the way. As always, the staff of Facilities Services provided excellent support setting up the event. We also thank Teaching, Learning, and Technology Services for preparing laptops for student presentations, and Susan McDonnell of Computer Science for providing technical support on-site.

Of course, the conference would not be possible without the students and faculty of the MN State 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 MN State Undergraduate Scholar organizing council whose insights and passion for undergraduate research and scholarships have developed and sustained this celebration of our students.

Sincerely,

Heather Sklenicka, Ph.D.
Rochester Community and Technical College

Kubilay Gok, Ph.D. and Mingrui Zhang, Ph. D.
Winona State University
SUNDAY, APRIL 2ND

6:00 a.m. – 8:00 p.m.  Check-in
  Tau Center, West Campus

MONDAY, APRIL 3RD

7:30 a.m. – 11:00 a.m.  Registration
  Kryzsko Commons, East Hall

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

8:30 a.m. – 9:45 a.m.  Poster Session I
  Kryzsko Commons, East Hall

9:45 a.m. – 12:15 p.m.  Oral Session
  Rooms 225, 247, 249

12:15 p.m. – 1:00 p.m.  Lunch Break
  Kryzsko Commons, East Hall

12:45 p.m. – 1:00 p.m.  Invitation to the 7th MN State Conference at RCTC

1:00 p.m. – 2:15 p.m.  Poster Session II
  Kryzsko Commons, East Hall

Thank you for attending the Sixth Annual Minnesota Conference of Undergraduate Scholarly and Creative Activity

Minnesota Undergraduate Research Council
  Bemidji State University, Mahmoud Al-Odeh
  Inver Hills Community College, David Higgins
  Metropolitan State University, Jennifer Schultz, Alex Layne and Tammy Durant
  Minneapolis Community and Technical College and Renu Kumar
  Minnesota State University Moorhead, Oscar Flores
  Minnesota State University, Mankato, Karla Lassonde
  St Cloud State University, Carrie Barth and Jodi Kuznia
  Southwest Minnesota State University, Emily Deaver
  Winona State University, Kubilay Gok and Mingrui Zhang
  Rochester Community and Technical College, Heather Sklenicka
9:45 a.m. – 12:15 p.m.  

**Room 225**  
Moderator: Karla Lassonde

**PRESENTATION #2:** Abdiasis Abdilahi, Caitlyn Foley and Jaden Roddick  
*Seasonal Variations in the Dorsolateral and Medial Cortex, the Reptilian Hippocampus Homologue*

**PRESENTATION #5:** Austin Heise  
*Cause of Death: United States’ Geostrategic Interests in the Horn of Africa, 1991-1995*

**PRESENTATION #13:** Elena Lacey  
*Female Coming of Age in Nazi Germany: Female Youth Education and Motherhood 1933-1945*

**PRESENTATION #15:** Elizabeth Rossow  
*Reflection about One Educator’s Experience of Culturally Responsive Instruction of One Child on the Autism Disorder Spectrum*

**PRESENTATION #26:** Justin Warburton  
*A Rubik’s Cube Solving Robot*

**PRESENTATION #46:** Nicholas Meyer  
*On The Algebra of Rotations of R3*

**PRESENTATION #39:** MaKyla Culpitt  
*Silence is Peace: The Clinton Administration and the Rwandan Genocide*

**Room 247**  
Moderator: Heather Sklenicka

**PRESENTATION #1:** Aaron Camacho, Regan Holm and Raeshawn McDuffie  
*Indigenous Learning Garden Initiative*

**PRESENTATION #12:** Dalton Dahle, Laura Oakgrove, Additional Team Members: Lavahn Bounkio, Luis Cisneros Pito, Lizette Reilan, Sagal Abdi, Thiab Abuserrieh and Awel Lam  
*Humans of RCTC: A Service Learning Approach to Intercultural Communication Exploration*

**PRESENTATION #14:** Elisa Wright  
*Optimization of Warfarin Synthesis in the Undergraduate Teaching Laboratory*

**PRESENTATION #31:** Ker Thao  
*Electrochemistry with Household Items*

**PRESENTATION #35:** Lindsey Wendt and Nicole Pederson  
*How BSU Students Utilize Social Media and How Our Campus Can Benefit From This*

**PRESENTATION #36:** Luis Cisneros Pito, Lizette Reiland, Sagal Abdi, Thiab Abuserrieh and Awel Lam  
*Life between Co-Cultures: A Spotlight on RCTC Student Intercultural Communication Experiences*

**PRESENTATION #44:** Michael Ganzer and Tien Pham  
*Design and Validation of a Low Cost High Speed Atomic Force Microscope*
PRESENTATION #17: Emma Tomb
Painting the Revolution: The Mexican Revolution’s Transformative Effect on Mexican Painting

PRESENTATION #18: Gabriela Lara
Running with the Beast

PRESENTATION #38: Madison Bowe and Chloe Healy
An Empirical Analysis of the EEOC and Company Compliance in the Human Resource Field

PRESENTATION #55: Sarah Ortega, Jennifer Manglos, Risa Muroya and Samantha Fances
Challenging Rape Culture: FORGE and RE Initiative

PRESENTATION #57: Sterling Knox
Grand Reentry

PRESENTATION #59: Tia Hinz
Slut Shaming and the Rape Culture
POSTER SESSION I

PRESENTATION #3: Alyssa Klenotich
Exploring Vitamin Intake with a Self-As-Doer Intervention

PRESENTATION #8: Bryce Lange
Democracy in the United States

PRESENATATION #11: Cosette Kaster, Tayler Burg and Lindsey Dahlberg
Visionary to Success: J.R. Watkin’s Hiring and Performance Management Processes

PRESENTATION #16: Emily Roth
An Improved Method for Vitamin C Titration

PRESENTATION #19: Garrett Wee
Evaluating the Seasonal changes in Lone Tree Lake wetland in North Eastern Lyon County

PRESENTATION #20: Grady Friedges
Group Differences in Performance between Forward Line and Back Line Male Rugby Players

PRESENTATION #21: Grady Friedges, Lauren Mullenbach, Michaela Handke, Kemry Grett, Rylie Klinski and Jonathan St. Peter
How Do You Exercise? Group Differences among College Students’ Attitudes towards Exercise and Body Image

PRESENTATION #22: Hok Lam (Rachel) Ou-Yong
Predicting Lung Cancer Treatment Outcomes

PRESENTATION #23: Jennifer Brown, Grady Friedges and Ryan Vargas
Does level of aggression influence athletic performance in men’s rugby?

PRESENTATION #28: Katie Scruggs and Ethan Pottebaum
Exploiting Ebola Virus-Like Particles to Develop a Better Vaccine

PRESENTATION #29: Kelly Highum
Online Pornography: Shaping Masculinity in a Post-Industrial World

PRESENTATION #30: Kemry Gett, Grady Friedges, Lauren Mullenbach, Michaela Handke, Rylie Klinski and Jonathan St. Peter
Healthy Lifestyles Among College Undergraduates: Do Healthy Eating Habits Paired with Regular Exercise Reduce the Symptoms of Anxiety?

PRESENTATION #32: Kristian Kennedy
Dihydroxylation of Limonene

PRESENTATION #33: Lauren Mullenbach, Grady Friedges, Michaela Handke, Kemry Gett, Rylie Klinski and Jonathan St. Peter
Exercise and Anxiety Across a College Campus: Does Intensity Matter?

PRESENTATION #34: Le Tang
Theorems on p-adic Continued Fractions

PRESENTATION #37: Madilyn R Schmitz, Amanda Madigan, Nicole Crowson, Nathan L Leonard, Elana Alcala, Victoria R Schwarzinger, Alyssa J Meyer, Mary Soderlund and Jean K Lim
West-Nile virus replicon particles infect 293T cells expressing DC-SIGNR

PRESENTATION #40: Mason Fetterer
Analyzing Twin Cities Public transit as it relates to vehicle ownership choice

PRESENTATION #45: Michael Holmblad
Understanding Elliptic Curves in Cryptography

PRESENTATION #47: Nicole Bean
Using Total Protein Stain as a Loading Control for Western Blot Analysis of SOD2
1:00 – 2:15 p.m.  POSTER SESSION II  East Hall

PRESENTATION #4: Anh Cong
Developing Hops Extraction Method for Brewing

PRESENTATION #6: Aynura Berdyyeva
Isomorphous Replacements and Crystal Structure of Pb(8-x)CaxNa2(VO4)6 Solid Solutions

PRESENTATION #7: Brennen Godeen
Jump Rope Study

PRESENTATION #9: Caitlin Flynn and Melissa Jones
Escherichia coli (E. coli) Impairment in Minneopa Creek

PRESENTATION #10: Caroline Bang
Gnomons

PRESENTATION #24: Jessica McDonald
Insights into Predicting Tornado Development Using NEWS-e Vorticity Forecasts

PRESENTATION #25: Justin Hill
Seasonal Changes in the Biota and Water Quality at Black Rush Lake WP A

PRESENTATION #27: Kaleab Worku
Performance Evaluation of Multi-hop WirelessHART Network on a Real-life Testbed

PRESENTATION #28: Megan Ford
Characterization of Brewer’s Yeast Strains by Carbon Source Utilization and Flow Cytometry

PRESENTATION #42: Mehedi Hasan and Clenten Ndonwie
Biocompatibility of Hydroxyapatite and Stainless Steel Alloys

PRESENTATION #43: Melissa Jones and Caitlin Flynn
Are Escherichia coli (E. coli) Isolated from Minneopa Creek Developing Resistance to 10 Antibiotics?

PRESENTATION #48: Okhumhekho Kassim
Induced Natriuresis on Spontaneously Hypertensive Female Rats

PRESENTATION #49: Russell Manser and Daniel Phoenix
Modeling Stratosphere-Troposphere Exchange within Extreme Extratropical Convection

PRESENTATION #50: Ryan Leba
Counteraction of APOBEC3A by SIV Sooty Mangabey Proteins

PRESENTATION #51: Ryan Vargas, Grady Friedges and Jennifer Brown
Does Experience Predict Success on the Rugby Pitch?

PRESENTATION #52: Rylie Klinski, Grady Friedges, Lauren Mullenbach, Michaela Handeke, Kemry Gett and Jonathan St. Peter
Exercise Motivations of College Students: Shifting Away From Media Influence

PRESENTATION #53: Samantha Lee and Grady Friedges
“I work hard, feel good, do well”: A Qualitative Analysis of Student Athletes’ Perspectives of Academic Achievement

PRESENTATION #54: Samson Chen
Complex Analysis Calculator

PRESENTATION #58: Tate Andrew Colwell
Stress effect on soybean yield

PRESENTATION #60: Peter Olson
Thomas A. Hanson, Faculty Mentor
Financial Literacy, Family Communication, and Privacy Management

PRESENTATION #61: Jenna Kalthoff
Portfolio Investment, Behavioral Biases, and Financial Literacy

PRESENTATION #62: Qin Chen and Wen Zheng
Does higher gender diversity in corporate boards increase financial performance?
INDEX OF PRESENTATIONS

PRESENTATION #1
Aaron Camacho, Regan Holm and Raeshawn McDuffie
Alexander Hines and Tarrell Portman, Faculty Mentor
Inclusion and Diversity Office, Winona State University
*Indigenous Learning Garden Initiative*
Format: Oral

PRESENTATION #2
Abdiasis Abdilahi, Caitlyn Foley and Jaden Roddick
Rachel Cohen, Faculty Mentor
Department of Biological Sciences, Minnesota State University Mankato
*Seasonal Variations in the Dorsolateral and Medial Cortex, the Reptilian Hippocampus Homologue*
Format: Oral

PRESENTATION #3
Alyssa Klenotich
Amanda Brouwer, Faculty Mentor
Department of Psychology, Winona State University
*Exploring Vitamin Intake with a Self-As-Doer Intervention*
Format: Poster

PRESENTATION #4
Anh Cong
Brian Groh, Faculty Mentor
Department of Chemistry, Minnesota State University Mankato
*Developing Hops Extraction Method for Brewing*
Format: Poster

PRESENTATION #5
Austin Heise
Juanadrea Bates, Faculty Mentor
Department of History, Winona State University
*Cause of Death: United States´ Geostrategic Interests in the Horn of Africa, 1991-1995*
Format: Oral

PRESENTATION #6
Aynura Berdyyeva
Lyudmyla Stackpool, Faculty Mentor
Department of Chemistry, Minnesota State University Mankato
*Isomorphous Replacements and Crystal Structure of Pb(8-x)Ca_xNa_2(VO_4)_6 Solid Solutions*
Format: Poster

PRESENTATION #7
Brennen Godeen
Jessica Albers, Faculty Mentor
Department of Human Performance, Minnesota State University Mankato
*Jump Rope Study*
Format: Poster

PRESENTATION #8
Bryce Lange
Jorgensen, Faculty Mentor
Political Science, Winona State University
*Democracy in the United States*
Format: Poster

PRESENTATION #9
Caitlin Flynn and Melissa Jones
Beth Proctor, Faculty Mentor
Department of Environmental Science, Minnesota State University Mankato
*Escherichia coli (E. coli) Impairment in Minneopa Creek*
Format: Poster

PRESENTATION #10
Caroline Bang
Dale Buske and Melissa Hanzsek-Brill, Faculty Mentor
Department of Mathematics and Statistics, St. Cloud State University
*Gnomons*
Format: Poster

PRESENTATION #11
Cosette Kaster, Tayler Burg and Lindsey Dahlberg
Jin Han, Faculty Mentor
Department of Business Administration/ Human Resources, Winona State University
*Visionary to Success: J.R. Watkin’s Hiring and Performance Management Processes*
Format: Oral

PRESENTATION #12
Dalton Dahle, Laura Oakgrove, Additional Team Members: Lavahn Bounkio, Luis Cisneros Pito, Lizette Reilan, Sagal Abdi, Thiab Abuserrieh and Awel Lam
Lori Halverson-Wente, Faculty Mentor
Department of Communication, Rochester Community and Technical College
*Humans of RCTC: A Service Learning Approach to Intercultural Communication Exploration*
Format: Oral
PRESENTATION #13
Elena Lacey
Juandrea Bates, Faculty Mentor
Department of History, Winona State University
*Female Coming of Age in Nazi Germany: Female Youth Education and Motherhood 1933-1945*
Format: Oral

PRESENTATION #14
Elisa Wright
Heather Sklenicka, Faculty Mentor
Department of Science, Rochester Community and Technical College
*Optimization of Warfarin Synthesis in the Undergraduate Teaching Laboratory*
Format: Oral

PRESENTATION #15
Elizabeth Rossow
Elizabeth Sandell, Faculty Mentor
Department of Educational Studies: Elementary and Early Childhood, Minnesota State University Mankato
*Reflection about One Educator’s Experience of Culturally Responsive Instruction of One Child on the Autism Disorder Spectrum*
Format: Oral

PRESENTATION #16
Emily Roth
Heather Sklenicka, Faculty Mentor
Department of Science, Rochester Community and Technical College
*An Improved Method for Vitamin C Titration*
Format: Poster

PRESENTATION #17
Emma Tomb
Juandrea Bates, Faculty Mentor
Department of History, Winona State University
*Painting the Revolution: The Mexican Revolution’s Transformative Effect on Mexican Painting*
Format: Oral

PRESENTATION #18
Gabriela Lara
Season Ellison, Faculty Mentor
Creative Performance, Bemidji State University
*Running with the Beast*
Format: Oral

PRESENTATION #19
Garrett Wee
Emily Deaver, Faculty Mentor
Environmental Science Program, Southwest Minnesota State University
*Evaluating the Seasonal changes in Lone Tree Lake wetland in North Eastern Lyon County*
Format: Poster

PRESENTATION #20
Grady Friedges
Trisha Karr, Faculty Mentor
Department of Psychology, Winona State University
*Group Differences in Performance between Forward Line and Back Line Male Rugby Players*
Format: Poster

PRESENTATION #21
Grady Friedges, Lauren Mullenbach, Michaela Handke, Kemry Grett, Rylie Klinski and Jonathan St. Peter
Trisha Karr, Faculty Mentor
Department of Psychology, Winona State University
*How Do You Exercise? Group Differences among College Students’ Attitudes towards Exercise and Body Image*
Format: Poster

PRESENTATION #22
Hok Lam (Rachel) Ou-Yong
Mingrui Zhang, Faculty Mentor
Department of Computer Science, Winona State University
*Predicting Lung Cancer Treatment Outcomes*
Format: Poster

PRESENTATION #23
Jennifer Brown, Grady Friedges and Ryan Vargas
Trisha Karr, Faculty Mentor
Department of Psychology, Winona State University
*Does level of aggression influence athletic performance in men’s rugby?*
Format: Poster

PRESENTATION #24
Jessica McDonald
Alan Srock, Faculty Mentor
Department of Atmospheric and Hydrologic Sciences, St. Cloud State University
*Insights into Predicting Tornado Development Using NEWS-e Vorticity Forecasts*
Format: Poster
PRESENTATION #25

**Justin Hill**  
Emily Deaver, Faculty Mentor  
Environmental Science Program, Southwest Minnesota State University  
*Seasonal Changes in the Biota and Water Quality at Black Rush Lake WP A*  
Format: Poster

PRESENTATION #26

**Justin Warburton**  
Jason Schultz, Faculty Mentor  
Computer Science, Bemidji State University  
*A Rubik's Cube Solving Robot*  
Format: Oral

PRESENTATION #27

**Kaleab Worku**  
Tirthankar Ghosh and Yi Zheng, Faculty Mentor  
Computer Science and Information Technology, and Department of Electrical and Computer Engineering, Saint Cloud State University  
*Performance Evaluation of Multi-hop WirelessHART Network on a Real-life Testbed*  
Format: Poster

PRESENTATION #28

**Katie Scruggs and Ethan Pottebaum**  
Osvaldo Martinez, Faculty Mentor  
Department of Biology, Winona State University  
*Exploiting Ebola Virus-Like Particles to Develop a Better Vaccine*  
Format: Poster

PRESENTATION #29

**Kelly Highum**  
Rafael Narvaez, Faculty Mentor  
Department of Sociology, Winona State University  
*Online Pornography: Shaping Masculinity in a Post-Industrial World*  
Format: Poster

PRESENTATION #30

**Kemry Gett, Grady Friedges, Lauren Mullenbach, Michaela Handke, Rylie Klinski and Jonathan St. Peter**  
Trisha Karr, Faculty Mentor  
Department of Psychology, Winona State University  
*Healthy Lifestyles Among College Undergraduates: Do Healthy Eating Habits Paired with Regular Exercise Reduce the Symptoms of Anxiety?*  
Format: Poster

PRESENTATION #31

**Ker Thao**  
Heather Sklenicka, Faculty Mentor  
Department of Chemistry, Rochester Community and Technical College  
*Electrochemistry with Household Items*  
Format: Oral

PRESENTATION #32

**Kristian Kennedy**  
Heather Sklenicka, Faculty Mentor  
Department of Science, Rochester Community and Technical College  
*Dihydroxylation of Limonene*  
Format: Poster

PRESENTATION #33

**Lauren Mullenbach, Grady Friedges, Michaela Handke, Kemry Gett, Rylie Klinski and Jonathan St. Peter**  
Trisha Karr, Faculty Mentor  
Department of Psychology, Winona State University  
*Exercise and Anxiety Across a College Campus: Does Intensity Matter?*  
Format: Poster

PRESENTATION #34

**Le Tang**  
Eric Errthum, Faculty Mentor  
Department of Mathematics and Statistics, Winona State University  
*Theorems on p-adic Continued Fractions*  
Format: Poster

PRESENTATION #35

**Lindsey Wendt and Nicole Pederson**  
Halbana Tarmizi, Faculty Mentor  
Business Administration, Bemidji State University  
*How BSU Students Utilize Social Media and How Our Campus Can Benefit From This*  
Format: Oral

PRESENTATION #36

**Luis Cisneros Pito, Lizette Reiland, Sagal Abdi, Thiab Abuserrieh and Awel Lam**  
Lori Halverson-Wente, Faculty Mentor  
Communication Department, Rochester Community and Technical College  
*Life between Co-Cultures: A Spotlight on RCTC Student Intercultural Communication Experiences*  
Format: Oral
PRESENTATION #37
Madilyn R Schmitz, Amanda Madigan, Nicole Crowson, Nathan L Leonard, Elana Alcala, Victoria R Schwarzinger, Alyssa J Meyer, Mary Soderlund and Jean K Lim
Osvaldo Martinez, Faculty Mentor
Department of Biology, Winona State University
West-Nile virus replicon particles infect 293T cells expressing DC-SIGNR
Format: Poster

PRESENTATION #38
Madison Bowe and Chloe Healy
Jing Han, Faculty Mentor
Department of Human Resources, Winona State University
An Empirical Analysis of the EEOC and Company Compliance in the Human Resource Field
Format: Oral

PRESENTATION #39
MaKyla Culpitt
Juandrea Bates, Faculty Mentor
History & Legal Studies Department, Winona State University
Silence is Peace: The Clinton Administration and the Rwandan Genocide
Format: Oral

PRESENTATION #40
Mason Fetterer
Jeffrey Ueland, Faculty Mentor
Geography, Bemidji State University
Analyzing Twin Cities Public transit as it relates to vehicle ownership choice
Format: Poster

PRESENTATION #41
Megan Ford
Timothy Secott, Faculty Mentor
Department of Biological Sciences, Minnesota State University Mankato
Characterization of Brewer’s Yeast Strains by Carbon Source Utilization and Flow Cytometry
Format: Poster

PRESENTATION #42
Mehedi Hasan and Clenten Ndonwie
Michael Bentley and Kuldeep Agarwal, Faculty Mentor
Department of Biological Sciences, Department of Automotive Engineering Technology, Minnesota State University Mankato
Biocompatibility of Hydroxyapatite and Stainless Steel Alloys
Format: Poster

PRESENTATION #43
Melissa Jones and Caitlin Flynn
Beth Proctor, Faculty Mentor
Department of Environmental Science, Minnesota State University Mankato
Are Escherichia coli (E. coli) Isolated from Minneopa Creek Developing Resistance to 10 Antibiotics?
Format: Poster

PRESENTATION #44
Michael Ganzer and Tien Pham
Robert Sleezer, Faculty Mentor
Department of Integrated Engineering, Minnesota State University Mankato
Design and Validation of a Low Cost High Speed Atomic Force Microscope
Format: Oral

PRESENTATION #45
Michael Holmblad
Joyati Debnath, Faculty Mentor
Department of Mathematics, Winona State University
Understanding Elliptic Curves in Cryptography
Format: Poster

PRESENTATION #46
Nicholas Meyer
Joyati Debnath, Faculty Mentor
Department of Mathematics, Winona State University
On The Algebra of Rotations of R3
Format: Oral

PRESENTATION #47
Nicole Bean
Theresa Salerno, Faculty Mentor
Department of Chemistry, Minnesota State University Mankato
Using Total Protein Stain as a Loading Control for Western Blot Analysis of SOD2
Format: Poster

PRESENTATION #48
Okhumhekho Kassim
Penny Knoblich, Faculty Mentor
Department Biological Sciences, Minnesota State University Mankato
Induced Natriuresis on Spontaneously Hypertensive Female Rats
Format: Poster
PRESENTATION #49
Russell Manser and Daniel Phoenix
Cameron R. Homeyer, Faculty Mentor
Department of Atmospheric & Hydrologic Sciences, Saint Cloud State University; School of Meteorology, University of Oklahoma
Modeling Stratosphere-Troposphere Exchange within Extreme Extratropical Convection
Format: Poster

PRESENTATION #50
Ryan Leba
Allison Land, Faculty Mentor
Department of Biological Sciences, Minnesota State University Mankato
Counteraction of APOBEC3A by SIV Sooty Mangabey Proteins
Format: Poster

PRESENTATION #51
Ryan Vargas, Grady Friedges and Jennifer Brown
Trisha Karr, Faculty Mentor
Department of Psychology, Winona State University
Does Experience Predict Success on the Rugby Pitch?
Format: Poster

PRESENTATION #52
Rylie Klinski, Grady Friedges, Lauren Mullenbach, Michaela Handeke, Kemry Gett and Jonathan St. Peter
Trisha Karr, Faculty Mentor
Department of Psychology, Winona State University
Exercise Motivations of College Students: Shifting Away From Media Influence
Format: Poster

PRESENTATION #53
Samantha Lee and Grady Friedges
Amanda. M. Brouwer and John C. Johanson, Faculty Mentor
Department of Psychology, Winona State University
“I work hard, feel good, do well”: A Qualitative Analysis of Student Athletes’ Perspectives of Academic Achievement
Format: Poster

PRESENTATION #54
Samson Chen
Dan Kaiser, ShuShuang Man and Mr. Kourosh Mortezapour, Faculty Mentor
Computer Science Program Southwest Minnesota State University
Complex Analysis Calculator
Format: Poster

PRESENTATION #55
Sarah Ortega, Jennifer Manglos, Risa Muroya and Samantha Fances
Tamara Berg and MaryJo Klinker, Faculty Mentor
Women’s, Gender, and Sexuality Studies, Winona State University
Challenging Rape Culture: FORGE and RE Initiative
Format: Oral

PRESENTATION #57
Sterling Knox
George McConnell, Faculty Mentor
Interdisciplinary Studies, Bemidji State University
Grand Reentry
Format: Oral

PRESENTATION #58
Tate Andrew Colwell
Lee French, Faculty Mentor
Agronomy Program, Southwest Minnesota State University
Stress effect on soybean yield
Format: Poster

PRESENTATION #59
Tia Hinz
Jay Passa, Faculty Mentor
Health Education, Bemidji State University
Slut Shaming and the Rape Culture
Format: Oral

PRESENTATION #60
Peter Olson
Thomas A. Hanson, Faculty Mentor
Paseka School of Business, Minnesota State University Moorhead
Financial Literacy, Family Communication, and Privacy Management
Format: Poster

PRESENTATION #61
Jenna Kalthoff
Thomas A. Hanson, Faculty Mentor
Paseka School of Business, Minnesota State University Moorhead
Portfolio Investment, Behavioral Biases, and Financial Literacy
Format: Poster

PRESENTATION #62
Qin Chen and Wen Zheng
Eduardo Pablo, Faculty Mentor
Paseka School of Business, Minnesota State University Moorhead
Does higher gender diversity in corporate boards increase financial performance?
Format: Poster
Thank you for attending the Sixth Annual Minnesota Conference of Undergraduate Scholarly and Creative Activity.