



2nd Annual

# Student Academic Conference

*The MSU showcase of academic achievements*



## Conference Program & Abstracts

### *Volume II*



Wednesday, April 19, 2000  
Comstock Memorial Union

**MOORHEAD**  
STATE UNIVERSITY

*Supported by: Academic Affairs, Academic Deans, Academic Departments, Administrative Affairs, Alpha Lambda Delta, Alumni Foundation, AV Services, Campus Activities Board, Counseling and Career Services, Inter Faculty Organization, President's Office, S.G. Comstock Fund, Student Activity Budget Committee, and Student Affairs.*

# **Congratulations MSU Students!**

**We're proud of your academic  
achievements and wish you continued  
success in all future endeavors.**

• ALUMNI FOUNDATION •

**MOORHEAD  
STATE UNIVERSITY**

The mission of the Moorhead State University Alumni Foundation is to develop relationships, promote the University, and provide funding to advance academic excellence at Moorhead State University.

visit our Web site at

[www.moorhead.mnstate.edu/alumni](http://www.moorhead.mnstate.edu/alumni)

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In its second year, still in its developing stages, the Student Academic Conference has seen tremendous success. This conference is proud to showcase the talent and work of MSU Students. The philosophical premise of this conference is to challenge students to expand their knowledge base by viewing presentations from various disciplines. You are encouraged to attend presentations that are completely opposite of your current major. Since your fellow students are offering you an opportunity to learn more about yourself and other disciplines, please provide them with positive constructive feedback on the evaluation forms so that they may grow and develop from this experience as well. We realize that there will be some problems and things that could have been run more smoothly, but please be patient and share your concerns with us so that the conference can continue to grow and improve. Comments can be e-mailed to [acconf@mhd1.moorhead.msus.edu](mailto:acconf@mhd1.moorhead.msus.edu). Please visit the conference web site for more information about this conference and next year's conference at [www.moorhead.msus.edu/acadconf](http://www.moorhead.msus.edu/acadconf). Thank you for joining us today and we hope you will benefit from your attendance at the second annual Student Academic Conference.

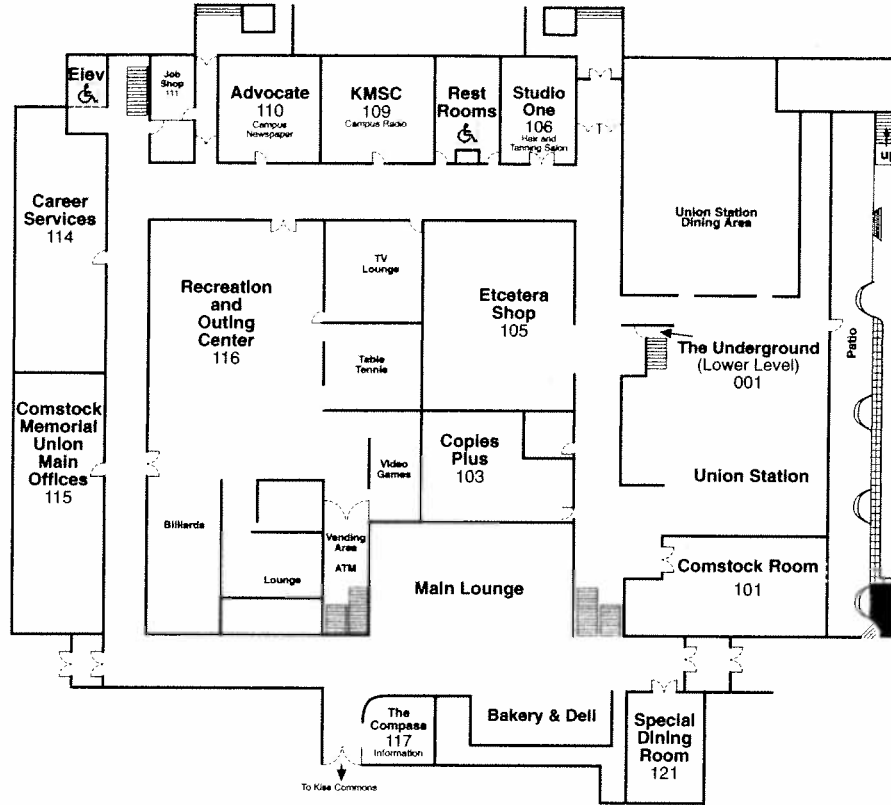
# Comstock Memorial Union Map



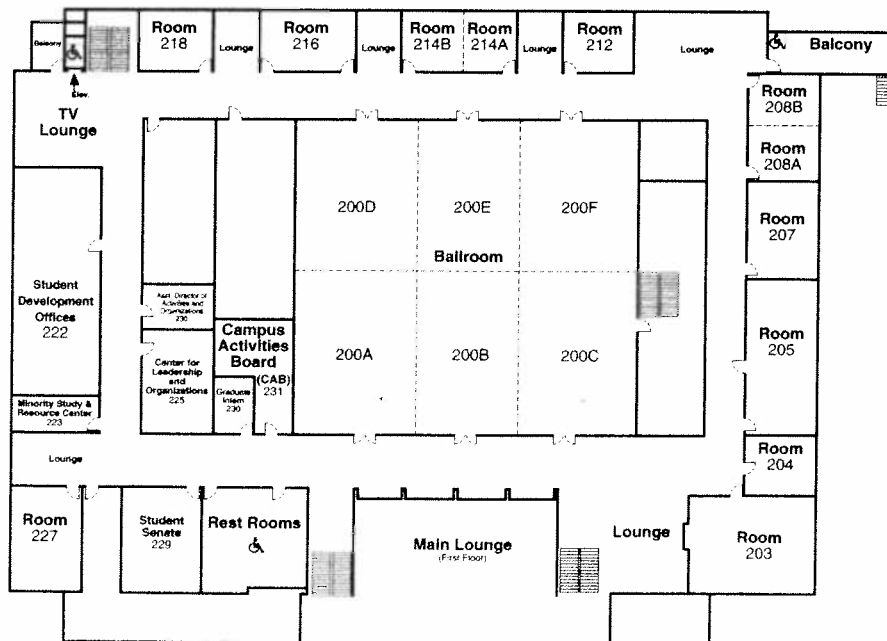
**Comstock Memorial Union**



**First Floor**



**Second Floor**



Comstock Memorial Union is a smoke-free environment

# Letter from the President

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Greetings:

I join the rest of the university community in proclaiming pride in students who pursue scholarly and creative excellence. The second annual Moorhead State University Student Academic Conference showcases the fact that many of our students become proficient scholars and artists.

This conference is a culmination of student work created because of the involvement and encouragement of MSU faculty. Essentially all of the research papers, creative works, group projects, and other student presentations are created under the personal supervision of an involved faculty member. Personal interaction between MSU students and faculty is key to student success.

Presenting one's work beyond the classroom and in the conference setting promotes student growth and development. Those students who participate in the Student Academic Conference will enjoy the intellectual pleasure of presenting to a genuinely interested audience of other students, faculty, and members of the community. And, they will experience the challenge of defending their ideas in a supportive community of student and faculty scholars.

Those who participate in the conference as audience members will encounter our students' intellectual curiosity and creativity. You will be presented with a wide array of new ideas, fresh approaches, and unique methods for arriving at creative solutions. I know that you will be impressed with the curiosity and rigor of our students.

My congratulations to all of you who contribute to the conference as student participants, faculty mentors, conference planners, and supporters. Thank you for your role in continuing Moorhead State University's tradition of excellence.

Sincerely,

A handwritten signature in black ink that reads "Roland E. Barden". The signature is written in a cursive style.

Roland E. Barden, Ph.D.  
President

# Letter from the Vice President

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## ***Memorandum***

Students and faculty members at Moorhead State University have long engaged in creative, meaningful learning experiences beyond the traditional classroom. What is relatively new, though, is being intentional about developing opportunities to share the results of those efforts with the entire campus community. No better example exists than the *Student Academic Conference: Bridging the Disciplines*, now in its second year.

As you read through the conference schedule, the level of accomplishment and the disciplinary diversity represented among the individual sessions, poster presentations, and group sessions will be immediately clear. Deciding which sessions to attend will be very difficult, because it means that there will be so many wonderful presentations you will miss.

Throughout the Conference, research results will be shared, creative projects will be viewed, and interdisciplinary student work will be examined. Conference attendees will contribute to the learning experience by asking questions, and by engaging in exchanges with students who are, often for the first time, presenting the results of original work.

For a very special day, the Moorhead State University community sets aside the myriad of activities, duties and commitments that occupy it from day to day, and focuses on the achievements of its students and the creative, scholarly and research gifts of its faculty. We invite you to join us and participate in a singular learning experience.

Bette G. Midgarden, Ph.D.  
Vice President for Academic Affairs

# Letter from the Alumni Foundation

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## Future Alumni,

Congratulations on the second year of an ambitious project to promote academic achievement! Your participation in the Student Academic Conference is testament to the importance our University places on intellectual and professional development. We celebrate the commitment of Moorhead State students to share knowledge and research.

Tens of thousands of your predecessors are proud to call Moorhead State their alma mater. Our university's reputation benefits from the educational rigor and performance that is underscored by your hard work. Academic excellence is our most important tradition.

Sincerely,

Gary Ness  
President  
MSU Alumni Foundation

- 9:00 a.m. Opening – CMU Ballroom**  
Welcome – Dr. Andrew Conteh, *Professor of Political Science*  
Opening – Dr. Roland Barden, *President*  
Introduction of Speaker – Doug Hamilton, *Director of Alumni Foundation*
- 9:15 a.m. Keynote Address: “Pursuit of Knowledge vs. Pursuit of a Degree” – CMU Ballroom**  
Dr. Janet Anderson, *Joint Director of Student Activities, College of Saint Benedict/Saint John’s University*
- 9:45 a.m. Panel Response to Keynote Address – CMU Ballroom**  
Introduction of Panelists – Ryan Sylvester, *Area Director for Nelson/Grantham/Holmquist*  
Panelists (One student from each academic college):  
Eric Piela, *Arts & Humanities*  
Shelby Grinde, *Business & Industry*  
Allison Spahn, *Education & Human Services*  
Christina Broadwell, *Social & Natural Sciences*

**Special note regarding presentation sessions:**

Each session is roughly an hour long, with some exceptions. Most sessions have three presentations per session. There are many variances to this as some presenters requested more time than the traditional 17 minute period (12 minutes to present/5 minutes for questions and answers). Times within a session and room to specific presentations are guidelines and are not necessarily the exact time the presentation will be given. It is suggested to go to the room and session in which a presentation you wish to see has been assigned. A schedule by room and session is included in the program.

- 10:30 a.m. Session 1 – Various CMU Rooms**  
10:30-11:30 a.m.
- 11:45 a.m. Luncheon – CMU Ballroom**  
Present your server with your designated meal ticket if you received a complimentary meal or if you purchased your meal in advance.  
  
Chicken Breast Divine (cream of mushroom, with a broccoli spear)  
or Stuffed Shells  
Rice Pilaf  
Fruit cup (fruit with champagne over it)  
Beverages: Water, lemonade, (coffee and milk upon request)
- 1:00 p.m. Session 2 – Various CMU Rooms**  
1:00-2:00 p.m.
- 2:00 p.m. Break – CMU Balcony**  
Refreshments sponsored by Academic Departments
- 2:15 p.m. Session 3 – Various CMU Rooms**  
2:15-3:15 p.m.
- 3:30 p.m. Closing – CMU Ballroom**  
Sponsored by Career Services. Attend for refreshments and to receive your presentation certificate.
- 9:00 p.m. Johnny Holm Dance – Ramada Crystal Ballroom**  
Tickets on sale at The Compass for MSU students \$6 and general admission for \$8. Tickets at the door are available for \$10. Sponsored by Campus Activities Board, Dragon Radio, and Habitat for Humanity.

# Conference Organizers And Steering Committee

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**Conference  
Advisor**

**Dr. Andrew Conteh**  
*Professor of Political Science*



**Conference  
Organizer**

**Ryan Sylvester**  
*Area Director Residence Life Department*



**Jeremy Nelson**  
*Student Organizer*



**Mike Welken**  
*Student Organizer*



## Conference Sponsors

Academic Affairs  
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Inter Faculty Organization  
President's Office  
Printing Services  
Publications  
S.G. Comstock Fund  
Sodexo-Marriott Food Service  
Student Activity Budget Committee  
Student Affairs

## Steering Committee

- Layne Anderson, Assistant Director of Event Services, CMU
- Les Bakke, Director, Computer Center
- Jean Butler, Former Director, Admissions
- Dr. Konrad Czynski, Associate Professor, Humanities
- Dr. John Hall, Associate Professor, Languages
- Dr. Ernest Hallford, Professor, Psychology
- Dr. James Harley, Instructor, Music
- Dr. Paul Kramer, Assistant Professor, Political Science
- Thomas Lane, Assistant Director of Operations, CMU
- Dr. Bette Midgarden, Vice President for Academic Affairs
- Gina Monson, Interim Director, Admissions
- Dr. David Olday, Professor, Sociology
- Dr. Hazel Retzlaff, Associate Professor, English
- Dr. Bruce Roberts, Assistant Professor, Anthropology
- Dr. Cliff Schuette, Director, Counseling Center and Career Center
- Dr. Mary Shimabukuro, Chair, Professor, Biology
- Dr. Judith Strong, Associate Vice President for Academic Affairs
- Scott Titsworth, Assistant Professor, Speech/Theatre
- Dr. Linda Winkler, Assistant Professor, Physics
- Dr. Larry Witherell, Assistant Professor, History
- Diane Wolter, Supplemental Instructor Coordinator and Career Specialist



# Keynote Speaker

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## **Dr. Janet Anderson**

**Joint Director of Student Activities,  
College of Saint Benedict/Saint John's University**

I graduated from MSU in 1988 with a Bachelor of Science degree. I created my own major because I couldn't choose just one! Education was the foundation, but I had a math minor. I was very involved with the program board while I attended MSU (was then called the Student Union Program Board (SUPB) and now is called CAB.) I was also very involved with the orientation program, and sat on the CMU advisory board.

After MSU, I went to Plymouth State College (NH) to get my master's degree in Higher Education Administration/Counseling. My assistantship was in college union management and campus programming, but I also worked in the career center. My first professional position was at Southwest State University (MN). I was the Assistant Director of Student Activities and Leadership Development. While at SSU, I started my involvement with the National Association for Campus Activities, a professional organization for students, campus activities professionals, and professionals in the entertainment industry.

After working at SSU for three years, I took a position at Marquette University (WI) as a Residence Hall Director because I wanted some residence life experience. I worked there for two years, and then decided to work on my PhD. I went to the University of Northern Colorado and received my PhD (with honors) in May of 1998.

Then I came to College of Saint Benedict/Saint John's University as the Joint Director of Student Activities. I have continued my involvement with NACA, and will be the Regional Coordinator starting in May 2001. I have also been involved in some writing projects, and have a chapter in a book coming out this spring. I am currently working on a gender and leadership development thought piece with Kathy Allen (a former MSU Union Director who mentored several of us at MSU). I owe my career path to Warren Wiese and Kathy Scott, who mentored me and were excellent professional role models!

I have always been a strong proponent of learning for learning's sake - not for the end goal of a degree or a job. So that is why this topic is perfect for me! I think my individualized major also comes from that as I created my own major as an undergraduate and also in my master's program (I combined two programs into one and made it fit what I needed and wanted to learn).

## Panelists

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**Shelby Grinde, *Business & Industry***

Accounting major from Thief River Falls, MN in 1996. Has been a Supplemental Instruction Leader for a year and a half (Fall 1997 to Spring 2000). Was a Hendrix Health Promotion Intern for the 1998-99 school year. Will be graduating with an accounting major this Spring 2000.



**Eric Piela, *Arts & Humanities***

Speech Communication major, from Mandan ND. Has been involved on campus in the following capacities: Association for Communication Enrichment, Student Orientation Counselor, Campus Activities Board, Alpha Lambda Delta, and Homecoming Royalty.



**Allison Spahn, *Education & Human Services***

Elementary Education major from Park Rapids, MN. Has been involved on campus in the following capacities: Hall Council, Dining Service Committee, Kappa Delta Pi, Education Minnesota Student Program (EMSP), Read Across America, Student Orientation Counselor, Campus Tour Guide, Alumni Phonathon, and STARS.



**Christina Broadwell, *Social & Natural Sciences***

Biology major from Valley City, ND. Completing her fifth year at the university and will be furthering her education at the University of North Dakota Medical School. She will also be presenting a poster during the conference outlining the research she has been conducting along with Dr. Mark Wallert of the Biology Department.

# SCHEDULE BY ROOM

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## • CMU 101

### **Session 1 – Session Chair: Dr. Judith Strong, Associate Vice President for Academic Affairs**

10:31 a.m.	1	PAC Contributions and Oversight Behavior
10:50 a.m.	60	The Effects of Antidumping Policies in the Steel Industry on the Social Welfare of the United States
11:19 a.m.	67	Interest Rates, Population, and Construction Employment in Fargo-Moorhead

### **Session 2 – Session Chair: Dr. Ron Jeppson, Dean of Social & Natural Sciences**

1:01 p.m.	48	Confidence Building in a Post-Conflict Environment
1:20 p.m.	47	Costs and Benefits Associated with Implementing an Indoor Water Slide
1:39 p.m.	70	The Impact of Reduced Defense Spending on Economic Growth

### **Session 3 – Session Chair: Dr. Douglas Greenley, Professor, Economics**

2:16 p.m.	54	Josephine Butler and the Contagious Disease Acts
2:35 p.m.	73	Taxation and the Labor Force
2:54 p.m.	11	The Gaming Industry

## • CMU 121

### **Session 1 – Session Chair: Dr. William Packwood, Chair, Professor, Counseling & Student Affairs**

10:31 a.m.	45	Adults with Learning Disabilities
10:50 a.m.	76	A Cross-sectional Study of Rental Housing in the United States
11:19 a.m.	4	An Analysis of the Housing Industry: A Regression Analysis of How Interest Rates Affect New Housing Starts

### **Session 2 – Session Chair: Dr. William Packwood, Chair, Professor, Counseling & Student Affairs**

1:01 p.m.	27	Depression
1:20 p.m.	88	Acquaintance Rape
1:39 p.m.	17	HIV Risk And College Students

### **Session 3 – Session Chair: Dr. William Packwood, Chair, Professor, Counseling & Student Affairs**

2:16 p.m.	72	Compulsive Eating Disorder
2:35 p.m.	39	Self-Esteem in an Adolescent World
2:54 p.m.	66	Seasonal Affective Disorder

## • CMU 203

### **Session 1 – Session Chair: Dr. Shawn Ginther, Associate Professor, Social Work**

10:31 a.m.	130	Finding Hidden Treasures
10:50 a.m.	46	The Effects of Gambling on Personal Debt
11:19 a.m.	128	Credit Card Debt and Usage Among Moorhead State University Students

### **Session 2 – Session Chair: Dr. Shawn Ginther, Associate Professor, Social Work**

1:01 p.m.	36	Growth of the Credit Card Industry
1:20 p.m.	8	VR Worx
1:39 p.m.	57	PowerPoint with Sound

### **Session 3 – Session Chair: Dr. Rhonda Ficek, Professor, AV-TV Services**

2:16 p.m.	75	Title Not Submitted
2:35 p.m.	69	Interactive Multimedia Content
2:54 p.m.	71	Database Interaction with Frontpage

● **CMU 204**

**Session 1 – Session Chair: Dr. Gary Litt, Professor, English**

10:31 a.m.	50	Learning Chinese
11:02 a.m.	138	The Use of Parallel Names in The Sound and the Fury.
	139	Life as Legend: The Southern Bible
	137	Hightower and Burden in Fatalistic Tandem

**Session 2 – Session Chair: Dr. Gary Nickell, Chair, Professor, Psychology**

1:01 p.m.	40	Neuroscience Laboratory and Classroom Activities
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**Session 3 – Session Chair: Dr. Mary Shimabukuro, Chair, Professor, Biology**

2:16 p.m.	94	Using BioTools Lab Activities to Meet National Science Standards
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● **CMU 205**

**Session 1 – Session Chair: Dr. Charles Bense, Associate Professor, English**

10:31 a.m.	126	Interpreting Robert Frost's "Home Burial"
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**Session 2 – Session Chair: Steven Hoffbeck, Assistant Professor, History**

1:01 p.m.	22	The Roman Religion and Christianity
1:20 p.m.	85	Violence Against Women in Post-Apartheid South Africa
1:39 p.m.	32	The Relationship Between Self-perception and Jealousy

**Session 3 – Session Chair: Dr. Steven Grineski, Dean of Education & Human Services**

2:16 p.m.	119	Implementing Eyes on Wildlife in a Standards-based Curriculum
2:35 p.m.	58	An Analysis of John Zorn's Music
2:54 p.m.	110	African-American Images in Television

● **CMU 207**

**Session 1 – Session Chair: Doug Hamilton, Director, Alumni Foundation**

10:31 a.m.	35	To the Lakes: The Lure of Minnesota
10:50 a.m.	129	MSU International Recruitment Video: A Student Production

**Session 2 – Session Chair: Dr. Joseph Provost, Assistant Professor, Chemistry**

1:01 p.m.	63	Introduction to Chemical Education Web Sites.
1:24 p.m.	62	The Confederate Constitution in Theory and Practice

**Session 3 – Session Chair: Dr. Dieter Berninger, Chair, Professor, Humanities**

2:16 p.m.	123	Changes in the Demand for Vehicles
2:35 p.m.	13	Determinants of Generic Drugs Use
2:54 p.m.	19	The Virtual Cell

● **CMU 208**

**Session 1 – Session Chair: Dr. Roland Dille, President Emeritus**

10:31 a.m.	78	"A Thought of Romans", "Love or Lonliness", and a Poem by King Solomon
10:50 a.m.	31	The Political Role of Women in the Middle East
11:19 a.m.	68	A Review of Human Rights Maintenance and Abuse in Northern Ireland 1969-1999

**Session 2 – Session Chair: Dr. Barbara Headrick, Assistant Professor, Political Science**

1:01 p.m.	24	Population Policy
1:20 p.m.	87	World Health Organization and Nutrition
1:39 p.m.	53	Golan Heights Solution

(CMU 208 – continued)

**Session 3 – Session Chair: Dr. Larry Witherell, Assistant Professor, History**

2:16 p.m. 86 Analyze This: Fantasy 2000  
2:35 p.m. 18 Duty and Reverence: An Emotive Aspect to a Deontic System of Morality  
2:54 p.m. 65 The Importance of Racial Attitudes in Political Affiliation

● **CMU 212 – Special Math Sessions (Times vary)**

**Session 1 – Session Chair: Dr. Geok Lian Ng, Assistant Professor, Mathematics**

10:31 a.m. 103 Hands-on Work with Dienes' Blocks

**Session 2 – Session Chair: Dr. Geok Lian Ng, Assistant Professor, Mathematics**

1:00 p.m. 113 Russian Peasant Algorithm of Multiplication  
1:25 p.m. 111 Tangrams

**Session 3 – Session Chair: Dr. Geok Lian Ng, Assistant Professor, Mathematics**

2:15 p.m. 21 Let's Go Geoboarding  
2:50 p.m. 112 Tantalizing Tangrams

● **CMU 214**

**Session 1 – Session Chair: Dr. David Crockett, Vice President for Administrative Affairs**

10:31 a.m. 132 How Size Effects Managerial Style  
10:50 a.m. 20 Metaphorical Implications of Snow in "The Dead" by James Joyce  
11:19 a.m. 95 Pornography on the Internet: Is Your Child in Danger?

**Session 2 – Session Chair: Warren Wiese, Vice President for Student Affairs**

1:01 p.m. 12 A Content Analysis of Termination Records in Lincoln, Lyon, and Murray Counties, MN  
1:20 p.m. 56 Freshman Alcohol Behaviors and First Semester Academic Performance.  
1:39 p.m. 28 Service Learning in the Disciplines

**Session 3 – Session Chair: Lynn Peterson, Coordinator for Sexual Assault Services**

2:16 p.m. 44 Gender Dysphoria  
2:35 p.m. 2 Looking Through the Peephole: Students Managing Students

● **CMU 216**

**Session 1 – Session Chair: Dr. Roland Barden, President**

10:31 a.m. 74 The Via Latina Catacomb in Rome: An Art Historical Examination of the Influence of Paganism on Early Christian Art  
10:50 a.m. 83 Counseling Center Access Database  
11:19 a.m. 121 BioWeb Search

**Session 2 – Session Chair: Dr. James Danielson, Professor, Political Science**

1:01 p.m. 97 Policy Analysis on Clientele Satisfaction  
1:20 p.m. 99 Policy Analysis on Volunteer Training  
1:39 p.m. 98 Policy Analysis on Social Workers in School Systems

**Session 3 – Session Chair: Dr. Derrick Dalhouse, Professor, Psychology**

2:16 p.m. 80 More Beneficial Learning Techniques for MSU Students  
2:35 p.m. 9 OPEC Strategy and the Effect on America  
2:54 p.m. 122 A Lesson on Heart Disease Risk Assessment Based on Genetics and Lifestyles

• **CMU 218**

**Session 1 – Session Chair: Dr. Paul Harris, Chair, Professor, History**

10:31 a.m.	3	Role of Anarchists in America
10:50 a.m.	79	The U.S. Army in the 21 <sup>st</sup> Century
11:19 a.m.	49	Developmental Differences between the U.S. and Latin America

**Session 2 – Session Chair: Lynn Peterson, Coordinator for Sexual Assault Services**

1:01 p.m.	6	A Thorn in the Side of America
1:20 p.m.	125	Interpreters (Peer Theatre)

**Session 3 – Session Chair: Dr. Vernon Dobis, Professor, Economics**

2:16 p.m.	64	Determinants of the Number of Casinos per State in America
2:35 p.m.	81	Economic Factors Influencing Sports Teams: The English Premier League
2:54 p.m.	34	Effects of War or Conflict on Social Development in Third World Countries

• **CMU 227**

**Session 1 – Session Chair: Dr. Bruce Roberts, Assistant Professor, Anthropology**

10:31 a.m.	90	Bison ( <i>Bison bison</i> ) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands
10:50 a.m.	7	Gambling: An Economic Problem
11:19 a.m.	84	Interactive System for Phonological Analysis

**Session 2 – Session Chair: LaRae McGillivray, Assistant Professor, Speech/Language/Hearing Science**

1:01 p.m.	16	Should the CMU Add Another Service Area, If So What?
1:35 p.m.	117	Powerball: The Lottery Game Who Shagged Me

**Session 3 – Session Chair: LaRae McGillivray, Assistant Professor, Speech/Language/Hearing Science**

2:16 p.m.	93	Outreach Activities of Chemistry and Physical Science Teaching Students
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• **Underground**

**Session 1 – Session Chair: Phyllis May-Machunda, Assistant Professor, Humanities**

10:31 a.m.	30	Architect Julia Morgan
10:51 a.m.	55	Eduard Bernstein's Influence on the Development of Evolutionary Socialism
11:19 a.m.	134	Video Game Violence

**Session 2 – Session Chair: Dr. Virginia Klenk, Dean of Arts & Humanities**

1:01 p.m.	14	The Economic Causes of Internal Conflict
1:20 p.m.	15	Comparison of Gov. Ventura's and the Past Two Administrations Funding
1:39 p.m.	118	Analysis of the "Size Matters" Campaign

**Session 3 – Session Chair: Dr. Paul Kramer, Assistant Professor, Political Science**

2:16 p.m.	10	Distrust for Political Institutions in Nigeria
2:35 p.m.	124	Describing Phonological Therapy Alone and in Conjunction with Oral Motor Therapy in an Individual with an Articulation Disorder
2:54 p.m.	33	An Analysis of the Creation Account Given in Ovid's <i>Metemorphosis</i>

## ● Main Lounge, Balcony, And Second Level Corridor

The presentations in the main lounge, balcony, and in the second level corridors are poster presentations. The posters will be on display in these areas throughout the day for conference attendees to review. Each poster presenter will leave a sheet by their poster indicating the time they will be available for questions at their poster. Posters will be organized in numerical order.

- 5 Prototype Effects and Harm
- 23 The Synthesis of Conducting Inorganic Polymers
- 25 Learned Recognition by Zebra Fish (*Brachydanio rerio*) of Novel Predator Odor Following Non-Simultaneous Presentation of Alarm Pheromone in Skin Extract and Predator Odor
- 26 A test for an Injury-released Alarm Cue in Bluegill Sunfish
- 29 Competence of Antipredator Behavior in Fish Larvae Under Parental Care
- 37 Demonstration and Characteristics of a Disturbance Phenomone in Flathead minnows
- 38 Learned Recognition of Novel Predator Cues by a Flatworm
- 42 Quantification of Nucleotides
- 43 The Effect on Amytrophic Lateral Sclerosis (Lou Gehrig's Disease) on Communication
- 52 Human Color Perception in Relation to Emotion
- 59 Numerical Simulation of Self-Interacting CDM Structure Formation
- 61 The Interaction of Ambient Temperature and Cognitive Tasks: The Effects of Heat Stress on Memory Recall
- 77 Using Perceptions to Encourage Smokers to Quit
- 82 What Do People Want? Women, Men, and the Desirability of Attractiveness in Partners
- 89 Hypermnesia and Recall in Memory
- 91 Movements and Space Utilization by Gunnison's Prairie Dogs (*Cynomys gunnisoni*) Living Multiple Years in a Colorado Colony
- 92 Management and Treatment Strategies of Patients with Alzheimer's Disease.
- 96 Neurological Involvement and Social Implications of Mode of Communication for Individual with Cerebral Palsy and Mild Mental Retardation
- 100 Cochlear Implants
- 101 Developmental Apraxia of Speech.....Phonological Awareness, Literacy, and Treatment
- 102 Dysarthria in Parkinson's Disease and Its Voice Treatment
- 104 Austic Spectrum Disorder
- 105 Perception of the Tritone Paradox by Listeners in the Midwest
- 106 Perception of the Tritone Paradox by Listeners in Greece
- 107 The Communicative Effects of Asperger's Syndrome
- 108 Differential Activation of Mitogen Activated Protein Kinases
- 109 Serum Dependence of Intracellular pH in Cultured Neonatal Cardiac Myocytes
- 114 Involvement of a Protein Component in a Minnow Alarm Cue
- 115 G-protein Mediated Activation of the Sodium/Hydrogen Ion Exchanger in CCL-39 Cells
- 116 Rett Syndrome
- 120 The Effects of a Left Hemisphere Brain Tumor on Motor, Behavior, and Speech-Language Development
- 131 The Effects of Traumatic Brain Injury on Verbal and Non-verbal Memory Skills
- 133 Influential Factors Associated with Speechreading
- 135 Title Not Submitted
- 136 NHE1 Regulation in CCL39 Cells

# Alphabetical List Of Presenters

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Numbers correlate to the Abstracts starting on page 24.

#	Name	Title	Room	Time
58	Al Albers	An Analysis of John Zorn's Music	205	2:35 p.m.
87	Steven Anderson	World Health Organization and Nutrition	208	1:20 p.m.
23	Sudeep Basnet	The Synthesis of Conducting Inorganic Polymers	Main Lounge	See Poster
97	Jill Baumgartner	Neurological Involvement and Social Implications of Mode of Communication for Individual with Cerebral Palsy and Mild Mental Retardation	Main Lounge	See Poster
115	Matt Baumgartner	G-protein Mediated Activation of the Sodium/Hydrogen Ion Exchanger in CCL-39 Cells	Main Lounge	See Poster
69	Erik Behrens	Interactive Multimedia Content	203	2:35 p.m.
26	Steve Behringer	A test for an Injury-released Alarm Cue in Bluegill Sunfish	Main Lounge	See Poster
85	Nicole Bergeron	Violence Against Women in Post-Apartheid South Africa.	205	1:20 p.m.
138	Amanda Bettmann	The Use of Parallel Names in <i>The Sound and the Fury</i>	204	11:02 a.m.
60	Jay Beutler	The Effects of Antidumping Policies in the Steel Industry on the Social Welfare of the United States	101	10:50 a.m.
98	Donna Bostick	Policy Analysis on Clientele Satisfaction	216	1:01 p.m.
135	Monty Botschner	Title Not Submitted	Main Lounge	See Poster
136	Christy Broadwell	NHE1 Regulation in CCL39 Cells	Main Lounge	See Poster
39	Julie Buerkle	Self-Esteem in an Adolescent World	121	2:35 p.m.
118	Patrick Carpenter	Analysis of the "Size Matters" Campaign	UNG	1:39 p.m.
113	Jennifer Christinsen	Russian Peasant Algorithm of Multiplication	212	1:00 p.m.
104	Brandi Claus	Astic Spectrum Disorder	Main Lounge	See Poster
135	Jeffery Clauson	Title Not Submitted	Main Lounge	See Poster
132	Ross Cleven	How Size Effects Managerial Style	214	10:31 a.m.
128	Deb Coalter	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
113	Kimberley Dahl	Russian Peasant Algorithm of Multiplication	212	1:00 p.m.
110	Kent Dahlman	African American Images in Television	205	2:54 p.m.
129	Yanick Dalhouse	MSU International Recruitment Video: A Student Production	207	10:50 a.m.
118	Rachel Deibert	Analysis of the "Size Matters" Campaign	UNG	1:39 p.m.
132	Kasia Derezinski	How Size Effects Managerial Style	214	10:31 a.m.
07	Jeff DeWitt	Gambling: An Economic Problem	227	10:50 a.m.
96	Leslie Doe	Pornography on the Internet: Is Your Child in Danger?	214	11:19 a.m.
132	Shannon Doherty	How Size Effects Managerial Style	214	10:31 a.m.
129	Chris Dolajack	MSU International Recruitment Video: A Student Production	207	10:50 a.m.



#	Name	Title	Room	Time
96	Becky Dulski-Wien	Pornography on the Internet: Is Your Child in Danger?	214	11:19 a.m.
47	Lindsey Ellingson	Costs and Benefits Associated with Implementing an Indoor Water Slide	101	1:20 p.m.
134	Jenny Erickson	Video Game Violence	UNG	11:19 a.m.
119	Jeff Erickson	Implementing Eyes on Wildlife in a Standards-based Curriculum	205	2:16 p.m.
133	Justin Fevold	Influential Factors Associated with Speechreading	Main Lounge	See Poster
117	Kelly Finke	Powerball: The Lottery Game Who Shagged Me	227	1:35 p.m.
122	Cody Fleck	A Lesson on Heart Disease Risk Assessment Based on Genetics and Lifestyles	216	2:54 p.m.
99	Angela Fowler	Policy Analysis on Volunteer Training	216	1:20 p.m.
128	Mary Fredrickson	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
101	Jennifer Freier	Developmental Apraxia of Speech.....Phonological Awareness, Literacy, and Treatment	Main Lounge	See Poster
120	Melanie Friedt	The Effects of a Left Hemisphere Brain Tumor on Motor, Behavior, and Speech-Language Development	Main Lounge	See Poster
94	Todd Frost	Using BioTools Lab Activities to Meet National Science Standards	204	2:16 p.m.
76	Tobis Funk	A Cross-sectional Study of Rental Housing in the United States.	121	10:50 a.m.
83	Neal Gamradt	Counseling Center Access Database	216	10:50 a.m.
27	Kristin Gehringer	Depression	121	1:01 p.m.
125	Greg Gerlach	Interpreters (Peer Theatre)	218	1:20 p.m.
125	Maranda Gerlach	Interpreters (Peer Theatre)	218	1:20 p.m.
111	Georgene Getz	Tangrams	212	1:25 p.m.
130	Bill Gillete	Finding Hidden Treasures	203	10:31 a.m.
102	Kelly Gillin	Dysarthria in Parkinson's Disease and Its Voice Treatment	Main Lounge	See Poster
89	Jean Grismer	Hypermnesia and Recall in Memory	Main Lounge	See Poster
104	Kathryn Groothuis	Austic Spectrum Disorder	Main Lounge	See Poster
84	Jenni Hagen	Interactive System for Phonological Analysis	227	11:19 a.m.
125	Melanie Hahn	Interpreters (Peer Theatre)	218	1:20 p.m.
100	Jennifer Harren	Cochlear Implants	Main Lounge	See Poster
123	Joel Hart	Structure of Firms in the Auto Industry	207	2:16 p.m.
17	Scott Haugen	HIV Risk And College Students	121	1:39 p.m.
133	Heather Haugen	Influential Factors Associated with Speechreading	Main Lounge	See Poster
119	Tanya Haugen	Implementing Eyes on Wildlife in a Standards-based Curriculum	205	2:16 p.m.
105	Meredith Haugen	Perception of the Tritone Paradox by Listeners in the Midwest	Main Lounge	See Poster
32	Jacqueline Hendricks	The Relationship Between Self-perception and Jealousy	205	1:39 p.m.
134	Amy Hensel	Video Game Violence	UNG	11:19 a.m.

#	Name	Title	Room	Time
112	Janna Herder	Tantalizing Tangrams	212	2:50 p.m.
52	Amanda Herrmann	Human Color Perception in Relation to Emotion	Main Lounge	See Poster
35	Scott Hochhalter	To the Lakes: The Lure of Minnesota	207	10:31 a.m.
122	Lon Hoffmann	A Lesson on Heart Disease Risk Assessment Based on Genetics and Lifestyles	216	2:54 p.m.
05	Ben Holle	Prototype Effects and Harm	Main Lounge	See Poster
126	Jessica Holm	Interpreting Robert Frost's "Home Burial"	205	10:31 a.m.
55	Morgan Huseby	Eduard Bernstein's Influence on the Development of Evolutionary Socialism	UNG	10:51 a.m.
20	Carla Isom	Metaphorical Implications of Snow in "The Dead" by James Joyce	205	10:50 a.m.
82	Jennifer Iveland	What Do People Want? Women, Men, and the Desirability of Attractiveness in Partners	Main Lounge	See Poster
80	Amanda Iverson	More Beneficial Learning Techniques for MSU Students	216	2:16 p.m.
107	Krysta Jacobson	The Communicative Effects of Asperger's Syndrome	Main Lounge	See Poster
50	Aaron Johnson	Learning Chinese	204	10:31 a.m.
16	Jeremy Johnson	Should the CMU Add Another Service Area, If So What?	227	1:01 p.m.
18	Tiffany Johnson	Duty and Reverence: An Emotive Aspect to a Deontic System of Morality	208	2:35 p.m.
96	Candy Johnson	Pornography on the Internet: Is Your Child in Danger?	214	11:19 a.m.
128	Heather Johnson	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
96	Corinne Kaminski	Pornography on the Internet: Is Your Child in Danger?	214	11:19 a.m.
61	Chad Kammerer	The Interaction of Ambient Temperature and Cognitive Tasks: The Effects of Heat Stress on Memory Recall	Main Lounge	See Poster
56	Susan Kelley	Freshman Alcohol Behaviors and First Semester Academic Performance.	214	1:20 p.m.
22	Phillip Kelsven	The Roman Religion and Christianity	205	1:01 p.m.
125	David Kemper	Interpreters (Peer Theatre)	218	1:20 p.m.
112	David Kemper	Tantalizing Tangrams	212	2:50 p.m.
78	Jade Kendall	"A Thought of Romans", "Love or Lonliness", and a Poem by King Solomon	208	10:31 a.m.
46	Marshall Kilzer	The Effects of Gambling on Personal Debt	203	10:50 a.m.
28	Siobhan Kleinwolterink	Service Learning in the Disciplines	214	1:39 p.m.
92	Justin Klitzke	Movements and Space Utilization by Gunnison's Prairie Dogs (Cynomys gunnisoni) Living Multiple Years in a Colorado Colony	Main Lounge	See Poster
128	Kylie Kolstad	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.

#	Name	Title	Room	Time
25	Nichole Korpi	Learned Recognition by Zebra Fish ( <i>Brachydanio rerio</i> ) of Novel Predator Odor Following Non-Simultaneous Presentation of Alarm Pheromone in Skin Extract and Predator Odor	Main Lounge	See Poster
114	Nichole Korpi	Involvement of a Protein Component in a Minnow Alarm Cue	Main Lounge	See Poster
53	Jan Krasny	Golan Heights Solution	208	1:39 p.m.
64	Shane Kroeplin	Determinants of the Number of Casinos per State in America	218	2:16 p.m.
108	Becky Kuehn	Differential Activation of Mitogen Activated Protein Kinases	Main Lounge	See Poster
125	Kari Kuhn	Interpreters (Peer Theatre)	218	1:20 p.m.
70	Curt Kuntz	The Impact of Reduced Defense Spending on Economic Growth	101	1:39 p.m.
02	Braden Kuznia	Looking Through the Peephole: Students Managing Students	214	2:35 p.m.
130	Frank Lahm III	Finding Hidden Treasures	203	10:31 a.m.
132	Allison Lamp	How Size Effects Managerial Style	214	10:31 a.m.
08	Joe Lango	VR Worx	203	1:20 p.m.
57	Joe Lango	PowerPoint with Sound	203	1:39 p.m.
30	Heidi Leinen	Architect Julia Morgan	UNG	10:31 a.m.
120	Carmen Lemar	The Effects of a Left Hemisphere Brain Tumor on Motor, Behavior, and Speech-Language Development	Main Lounge	See Poster
93	Sara Lemay	Management and Treatment Strategies of Patients with Alzheimer's Disease.	Main Lounge	See Poster
63	Kim Lester	Introduction to Chemical Education Web Sites	207	1:01 p.m.
134	Kristen Liebel	Video Game Violence	UNG	11:19 a.m.
134	Amber Link	Video Game Violence	UNG	11:19 a.m.
136	Lisa Loken	NHE1 Regulation in CCL39 Cells	Main Lounge	See Poster
114	Larry Louisiana	Involvement of a Protein Component in a Minnow Alarm Cue	Main Lounge	See Poster
120	Heather Love	The Effects of a Left Hemisphere Brain Tumor on Motor, Behavior, and Speech-Language Development	Main Lounge	See Poster
36	Tessa Lunders	Growth of the Credit Card Industry	203	1:01 p.m.
24	Gemma Luyima	Population Policy	208	1:01 p.m.
128	John Lyon	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
122	Chip Lyslo	A Lesson on Heart Disease Risk Assessment Based on Genetics and Lifestyles	216	2:54 p.m.
139	Jennifer Mailloux	Life as Legend: The Southern Bible	204	11:02 a.m.
134	Tara Mallick	Video Game Violence	UNG	11:19 a.m.
115	Isaac Manke	G-protein Mediated Activation of the Sodium/Hydrogen Ion Exchanger in CCL-39 Cells	Main Lounge	See Poster
88	Stephanie Maras	Acquaintance Rape	121	1:20 p.m.
31	Stephanie McCleerey	The Political Role of Women in the Middle East	208	10:50 a.m.
44	Shannon McCloskey	Gender Dysphoria	214	2:16 p.m.

#	Name	Title	Room	Time
92	Daniel McEwen	Movements and Space Utilization by Gunnison's Prairie Dogs ( <i>Cynomys gunnisoni</i> ) Living Multiple Years in a Colorado Colony	Main Lounge	See Poster
91	Daniel McEwen	Bison ( <i>Bison bison</i> ) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands	227	10:31 a.m.
77	Tasha McGregor	Using Perceptions to Encourage Smokers to Quit	Main Lounge	See Poster
71	Jen Meier	Database Interaction with Frontpage	203	2:54 p.m.
09	Tom Mielke	OPEC Strategy and the Effect on America	216	2:35 p.m.
06	Jessica Mikkelsen	A Thorn in the Side of America	218	1:01 p.m.
38	Melissa Millard	Learned Recognition of Novel Predator Cues by a Flatworm	Main Lounge	See Poster
121	Melissa Millard	BioWeb Search	216	11:19 a.m.
119	Sarah Mills	Implementing Eyes on Wildlife in a Standards-based Curriculum	205	2:16 p.m.
72	Gabriel Monroe	Compulsive Eating Disorder	121	2:16 p.m.
14	Stephanie Montgomery	The Economic Causes of Internal Conflict	UNG	1:01 p.m.
01	Stephanie Montgomery	PAC Contributions and Oversight Behavior	101	10:31 a.m.
86	Scotty Moore	Analyze This: Fantasy 2000	208	2:16 p.m.
128	Brent Moos	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
117	Casey Morris	Powerball: The Lottery Game Who Shagged Me	227	1:35 p.m.
29	Joseph Mullins	Competence of Antipredator Behavior in Fish Larvae Under Parental Care	Main Lounge	See Poster
109	Benjamin Naasz	Serum Dependence of Intracellular pH in Cultured Neonatal Cardiac Myocytes	Main Lounge	See Poster
54	Katie Nelson	Josephine Butler and the Contagious Disease Acts	101	2:16 p.m.
116	Sarah Nelson	Rett Syndrome	Main Lounge	See Poster
59	George Newman	Numerical Simulation of Self-Interacting CDM Structure Formation	Main Lounge	See Poster
117	Jay Noland	Powerball: The Lottery Game Who Shagged Me	227	1:35 p.m.
106	Angie Norberg	Perception of the Tritone Paradox by Listeners in Greece	Main Lounge	See Poster
125	Angie Norberg	Interpreters (Peer Theatre)	218	1:20 p.m.
95	Miranda Norby	Using BioTools Lab Activities to Meet National Science Standards	204	2:16 p.m.
136	Laura Nustad	NHE1 Regulation in CCL39 Cells	Main Lounge	See Poster
124	Shiloh Oates	Describing Phonological Therapy Alone and in Conjunction with Oral Motor Therapy in an Individual with an Articulation Disorder	UNG	2:35 p.m.
04	Knute Ohman	An Analysis on the Housing Industry: A Regression Analysis of How Interest Rates Affect New Housing Starts	121	11:19 a.m.
121	Spencer Oland	BioWeb Search	216	11:19 a.m.
96	Christi Osborn	Pornography on the Internet: Is Your Child in Danger?	214	11:19 a.m.
73	Cori Otto	Taxation and the Labor Force	101	2:35 p.m.

#	Name	Title	Room	Time
124	Jennifer Paffrath	Describing Phonological Therapy Alone and in Conjunction with Oral Motor Therapy in an Individual with an Articulation Disorder	UNG	2:35 p.m.
45	Mandy Parpart	Adults with Learning Disabilities	121	10:31 a.m.
42	Erik Pederson	Quantification of Nucleotides	Main Lounge	See Poster
131	Lori Peschong	The Effects of Traumatic Brain Injury on Verbal and Non-verbal Memory Skills	Main Lounge	See Poster
125	Lynn Peterson	Interpreters (Peer Theatre)	218	1:20 p.m.
103	David Peterson	Hands-on Work with Dienes' Blocks	212	10:31 a.m.
94	Chris Petersen	Outreach Activities of Chemistry and Physical Science Teaching Students	227	2:16 p.m.
128	Mary Pfeifer	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
126	Robin Phillips	Interpreting Robert Frost's "Home Burial"	205	10:31 a.m.
103	Patricia Pieri	Hands-on Work with Dienes' Blocks	212	10:31 a.m.
37	Scott Pohlman	Demonstration And Characteristics of a Disturbance Phenomone in Flathead minnows	Main Lounge	See Poster
21	Nicki Pretzer	Let's Go Geoboarding	212	2:15 p.m.
34	Erin Prochnow	Effects of War or Conflict on Social Development in Third World Countries	218	2:54 p.m.
74	Stephanie Pryor	The Via Latina Catacomb in Rome: An Art Historical Examination of the Influence of Paganism on Early Christian Art	216	10:31 a.m.
10	Jonathan Puklich	Distrust for Political Institutions in Nigeria	UNG	2:16 p.m.
128	Jay Rehling	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
132	Jamie Reibe	How Size Effects Managerial Style	214	10:31 a.m.
03	Troy Reisenauer	Role of Anarchists in America	218	10:31 a.m.
19	Sarah Rejsa	The Virtual Cell	207	2:54 p.m.
116	Emily Rhode	Rett Syndrome	Main Lounge	See Poster
98	Amelia Riccio	Policy Analysis on Social Workers in School Systems	216	1:39 p.m.
13	Robin Richter	Determinants of Generic Drugs Use	207	2:35 p.m.
130	Naomi Rintol	Finding Hidden Treasures	203	10:31 a.m.
68	Alastair Roderick	A Review of Human Rights Maintenance and Abuse in Northern Ireland 1969-1999	208	11:19 a.m.
110	Stephanie Rotz	African American Images in Television	205	2:54 p.m.
75	Dustin Rue	Title Not Submitted	203	2:16 p.m.
129	Tana Ruegamer	MSU International Recruitment Video: A Student Production	207	10:50 a.m.
128	Tracy Rystad	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
134	Nicole Schmidt	Video Game Violence	UNG	11:19 a.m.
11	Kyle Schmit	The Gaming Industry	101	2:54 p.m.

#	Name	Title	Room	Time
92	John Schoon	Movements and Space Utilization by Gunnison's Prairie Dogs ( <i>Cynomys gunnisoni</i> ) Living Multiple Years in a Colorado Colony	Main Lounge	See Poster
129	Karamel Schroeder	MSU International Recruitment Video: A Student Production	207	10:50 a.m.
128	Jessica Schultz	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
81	Gagandeep Sethi	Economic Factors Influencing Sports Teams: The English Premier League	218	2:35 p.m.
129	Gagandeep Sethi	MSU International Recruitment Video: A Student Production	207	10:50 a.m.
100	Krista Severson	Cochlear Implants	Main Lounge	See Poster
112	Jenny Sevigny	Tantalizing Tangrams	212	2:50 p.m.
107	Jocelyn Sheldon	The Communicative Effects of Asperger's Syndrome	Main Lounge	See Poster
110	Carissa Skarnagel	African-American Images in Television	205	2:54 p.m.
137	Vince Sliwoski	Hightower and Burden in Fatalistic Tandem	204	11:02 a.m.
125	Rebecca Smetana	Interpreters (Peer Theatre)	218	1:20 p.m.
65	John Smithwick	The Importance of Racial Attitudes in Political Affiliation	208	2:54 p.m.
43	Carrie Soderholm	The Effect on Amyotrophic Lateral Sclerosis (Lou Gehrig's Disease) on Communication	Main Lounge	See Poster
93	Amanda Sorenson	Management and Treatment Strategies of Patients with Alzheimer's Disease.	Main Lounge	See Poster
119	Brandy Spitzer	Implementing Eyes on Wildlife in a Standards-based Curriculum	205	2:16 p.m.
126	Dave Steinke	Interpreting Robert Frost's "Home Burial"	205	10:31 a.m.
91	Breann Stoltz	Bison ( <i>Bison bison</i> ) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands	227	10:31 a.m.
49	Pat Strand	Developmental Differences Between the U.S. and Latin America	218	11:19 a.m.
12	Mary Strom	A Content Analysis of Termination Records in Lincoln, Lyon, and Murray Counties, MN	214	1:01 p.m.
123	Aaron Stuart	Mergers in the Auto Industry	207	2:16 p.m.
66	Carolyn Swanson	Seasonal Affective Disorder (SAD)	121	2:54 p.m.
91	Heather Taylor	Bison ( <i>Bison bison</i> ) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands	227	10:31 a.m.
115	Summer Tegtmeier	G-protein Mediated Activation of the Sodium/Hydrogen Ion Exchanger in CCL-39 Cells	Main Lounge	See Poster
108	Tracie Teig	Differential Activation of Mitogen Activated Protein Kinases	Main Lounge	See Poster
91	Deanna Thompson	Bison ( <i>Bison bison</i> ) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands	227	10:31 a.m.
33	Shawn Thorson	An Analysis of the Creation Account given in Ovid's <i>Metemorphosis</i>	UNG	2:54 p.m.
62	Joe Thronson	The Confederate Constitution in Theory and Practice	207	1:24 p.m.

#	Name	Title	Room	Time
109	Hillary Thronson	Serum Dependence of Intracellular pH in Cultured Neonatal Cardiac Myocytes	Main Lounge	See Poster
15	Sara Tofte	Comparison of Gov. Ventura's and the Past Two Administrations' Funding	UNG	1:20 p.m.
94	Melissa Torpen	Outreach Activities of Chemistry and Physical Science Teaching Students	227	2:16 p.m.
123	Travis Trudeau	Changes in the Demand for Vehicles	207	2:16 p.m.
101	Darcy VanDusen	Developmental Apraxia of Speech.....Phonological Awareness, Literacy, and Treatment	Main Lounge	See Poster
126	Hannah Varony	Interpreting Robert Frost's "Home Burial"	205	10:31 a.m.
97	Jessica Villiard	Neurological Involvement and Social Implications of Mode of Communication for Individual with Cerebral Palsy and Mild Mental Retardation	Main Lounge	See Poster
103	Darcy Vogelbacher	Hands-on Work with Dienes' Blocks	212	10:31 a.m.
128	Jada Vosberg	Credit Card Debt and Usage Among Moorhead State University Students	203	11:19 a.m.
96	Jessica Walker	Pornography on the Internet: Is Your Child in Danger?	214	11:19 a.m.
90	Adam Walz	Bison (Bison bison) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands	227	10:31 a.m.
126	Amy Webster	Interpreting Robert Frost's "Home Burial"	205	10:31 a.m.
109	William Wegh	Serum Dependence of Intracellular pH in Cultured Neonatal Cardiac Myocytes	Main Lounge	See Poster
79	Bradley Weigandt	The U.S. Army in the 21 <sup>st</sup> Century	218	10:50 a.m.
48	Mike Welken	Confidence Building in a Post-Conflict Environment	101	1:01 p.m.
67	Brian Wentz	Interest Rates, Population, and Construction Employment in Fargo-Moorhead	101	11:19 a.m.
130	Garrett Williams	Finding Hidden Treasures	203	10:31 a.m.
111	Karla Winter	Tangrams	212	1:25 p.m.
103	David Wolff	Hands-on Work with Dienes' Blocks	212	10:31 a.m.
102	Sally Wurpts	Dysarthria in Parkinson's Disease and Its Voice Treatment	Main Lounge	See Poster
40	Jessica Zehrer	Neuroscience Laboratory and Classroom Activities	204	1:01 p.m.
131	Tiffany Zimmerman	The Effects of Traumatic Brain Injury on Verbal and Non-verbal Memory Skills	Main Lounge	See Poster

# Abstracts

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001

**Title:** PAC Contributions and Oversight Behavior

**Presenter(s):** Stephanie Montgomery

**Department:** Political Science

**Advisor:** Dr. Philip Baumann

**Abstract:** I will present a poster that will demonstrate preliminary findings of a study concerning campaign contributions and congressional behavior. Dr. Barbara Headrick and I have examined the possible effects of campaign contributions from PACs (Political Action Committees) on Congress members' activities within oversight committees. We have looked at campaign contributions from both Business PACs and Labor PACs to the members of the Appropriations Subcommittee on Labor, Health and Human Services and Education and the Labor Committee for the 1992 and 1994 elections. We are trying to determine if the contributions are deliberately given to certain members by the PACs that are associated with OSHA, a bureaucratic agency that these committees oversee, and if there is a relationship between PAC contributions and oversight behavior. This poster will demonstrate our findings.

002

**Title:** Looking Through the Peephole: Students Managing Students

**Presenter(s):** Braden Kuznia

**Department:** Comstock Memorial Union

**Advisor:** Thomas Lane

**Abstract:** A look at the role that students are able to play as peers, friends, and managers in the Comstock Memorial Union. We will give an overview of the Comstock Memorial Union's History and Student Manager expectations, Training and Evaluation, and Challenges & Rewards of Students managing Students.

003

**Title:** Role of Anarchists in America

**Presenter(s):** Troy Reisenauer

**Department:** History

**Advisor:** Dr. Diane Farrell

**Abstract:** The word anarchy is often used as a synonym for disorder or chaos. A segment of the anarchist movement has always embraced this definition of the word and lived according to Bakunin's epithet: "The urge to destroy is also a creative urge." Most anarchists, however, rejected the use of 'propaganda by the deed' and believed that bomb throwing and assassination were not the proper methods to bring about change in the structure of society. Furthermore, these anarchists believed that their theories of anarchism would create a highly organized society, not disorder. Nineteenth century anarchism is primarily associated with Europe and it's three giants of the movement: Proudhon, Bakunin, and Kropotkin. After briefly presenting the ideas of these men and defining what anarchy meant to them, the focus of my presentation will be the role that anarchists have played on the American stage. There were four main schools of anarchy in America: collectivist, communist, individualist, and syndicalist. My presentation will outline the similarities and differences between each of these branches of anarchism, as well as examine the main personalities – Emma Goldman, Benjamin Tucker, August Spies, etc. – that each philosophy was associated with.

004

**Title:** An Analysis on the Housing Industry: A Regression Analysis of How Interest Rates Affect New Housing Starts

**Presenter(s):** Knute Ohman

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** My presentation will take an analytical look at the Housing Industry and how certain economic factors affect the number of new housing starts. By using regression analysis, I plan to test the hypothesis that interest rates, among other things, have an inverse relationship with the number of new housing starts. This means that when interest rates increase, the number of new housing starts decrease and vice versa. By holding the number of housing starts as the dependent variable, I plan to use GDP, interest rates, mortgage interest rate, Consumer Price Index, and several other independent variables to test the sensitivity of those variables against the number of new housing starts.

After I get my results from the regression analysis, I also plan to break the regression analysis down even further. By looking at separate regions, I expect to find a difference in the sensitivity of the relationship between new housing starts and interest rates. By finding a difference between regions in the United States, The South, Midwest, East Coast, and West Coast, one can examine which of the independent variables has the greatest affect on the number of new housing starts and why.

Finding a relationship between the number of new housing starts and interest rates would be beneficial to a number of industries in the nation. Mortgage Firms, Lumber Companies, and Home Construction suppliers could use the information to help adjust their inventories and sales forces to reflect the changes brought on by an increase or decrease in the interest rate. I hope that this presentation would be able to provide some of that information to those people.

005

**Title:** Prototype Effects and Harm

**Presenter(s):** Ben Holle

**Department:** Sociology

**Advisor:** Dr. Joel Charon

**Abstract:** People's conceptions of harm are argued to be subject to prototype effects. That is, what people consider to be harm tends to gravitate toward a general 'best example' or prototype. The prototype is believed to involve an individual actor, a harmful effect, intent by the actor to cause the harm, and a victim who is 'innocent'. It is believed that as these qualities vary in kind or degree less people will agree that the situation is a good example of harm. Sixty students were asked to rate a number of scenarios depicting harm as either 'good' or 'poor' examples of harm. The results suggest that a prototype effect is taking place.

006

**Title:** A Thorn in the Side of America

**Presenter(s):** Jessica Mikkelson

**Department:** History

**Advisor:** Dr. Steven Hoffbeck

**Abstract:** Most people, when they think of the antiwar movement during the Vietnam War, they think of hippies, riots, protests, and drugs. Now, would you ever think Moorhead State College would have been part of such



a movement? They were, maybe not in such a dramatic way like those at Kent State, but for a small town in the middle of Minnesota and North Dakota, Moorhead State College was one of the most active campuses in the area.

Through this paper and presentation I will explain to those in attendance what the anti-war movement was like here on our own college campus, from the Students for a Democratic Society to the blocking of three bridges linking Moorhead and Fargo. These students were a thorn in the side of America, and it is interesting to know little Moorhead State College was a part of such a colorful time in our history.

## 007

**Title:** Gambling: An Economic Problem

**Presenter(s):** Jeff DeWitt

**Department:** Economics/Accounting

**Advisor:** Dr. Oscar Flores

**Abstract:** With the help of two colleagues, I will examine the gaming industry in order to find some possible solutions to what I believe is the most dangerous addiction. Together, we will study the external and internal environment of the gaming industry. For the presentation I will introduce us and tell a personal story. Kyle will then discuss the industry and Shane will compare specific games with some exciting statistics. I will conclude by suggesting some possible solutions to the problems arising from the industry and how to implement them. All three of us have a background in economics and we feel confident in our ability to assess the gaming industry. We will use Microsoft Power Point and expect it to last about 40 minutes.

## 008

**Title:** VR Worx

**Presenter(s):** Joe Lango

**Department:** Instructional Technology

**Advisor:** Dr. Rhonda Ficek

**Abstract:** My presentation would be on Virtual Reality, in particular a software package called the VR Worx. This software allows the creation of QuickTime interactive videos. It is relatively easy to create a virtual reality movie.

## 009

**Title:** OPEC Strategy and the Effect on America

**Presenter(s):** Tom Mielke

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** In the late 1950's OPEC had yet to be formed and the oil industry ran Middle Eastern Governments. Since OPEC's origination in the 1960's, it has become the world's largest, legal cartel. In America, OPEC has always been scorned because we purchase their oil, but what would you think if you were in their shoes where you had the need for a disciplined oil supply. OPEC's only weapons are oil cutbacks and increases in production. The effects of their actions mean different ramifications for every country in the world based on whether they are a supplier or a consumer of oil. These effects are the subject of my study of OPEC.

## 010

**Title:** Distrust for Political Institutions in Nigeria

**Presenter(s):** Jonathan Puklich

**Department:** Political Science

**Advisor:** Dr. Andrew Conteh

**Abstract:** For my research topic I have chosen to examine the role that ethnic minorities have played in the development of their countries. Not only will I examine the role that minorities have had in the development of their countries I will also look at what effects development has had on them. Research will focus on some developing countries in Africa that are similar in history and development. A particular country of interest which will be of great help in gaining such knowledge is Nigeria. From my research I hope to gain an understanding of whether ethnic minorities have created political violence, instability, and slowed down development.

## 011

**Title:** The Gaming Industry

**Presenter(s):** Kyle Schmit

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** The paper my group plans on presenting will cover the Gaming Industry. The second person in my group (Jeff) plans on setting up an introduction. In the introduction he will share some of the experiences his family has had with gambling. Then I will present second. I will take an in depth look at the Gaming Industry as a whole. I will use the larger companies in this industry like Harrah's, Mirage, MGM Grand, Madalay Bay etc. I plan on setting up a regression to see if the main economic variables affect the sales of the casinos. After I present the third member of our group (Shane) plans on sharing information about a certain game within the gaming industry. He will discuss issues like how much floor space does a casino grant to the black jack tables. In addition to this he will share other important data concerning the game he chooses. Then Jeff will at this point and discuss gaming and the tax system. His goal is to show connections, if there are any, between certain economic variables, the tax system and gaming. Jeff also plans on concluding the paper.

## 012

**Title:** A Content Analysis of Termination Records in Lincoln, Lyon, and Murray Counties, MN

**Presenter(s):** Mary Strom

**Department:** Social Work

**Advisor:** Dr. Richard DuBord

**Abstract:** In compliance to recent changes in Minnesota legislation regarding child welfare, Lincoln, Lyon, Murray (LLM) Human Services began, July 1, 1999, a program entitled concurrent planning. This program established timetables in regards to terminating the parental rights (TPR) of children within the foster care system. A content analysis of case files in which parental rights were terminated between 1994 and 1999 was conducted to obtain baseline data for determining the effect of concurrent planning on cases needing out-of-home placement. Case records of twenty-one families (thirty children) were reviewed. It was found that the length of time spent in the social service system in Lyon county before TPR ranged from one to eleven years with an average of 6.6 years. The average number of out-of-home placements before TPR was 4.5. Examination of issues relating to difficulty in parenting included mental health, chemical dependency, family of origin trauma, age of parent at time of birth of child, and criminal background. Long-term analysis will be needed in order for a determination of effectiveness of concurrent planning to be valid. Because of the recent implementation of the program, this research is exploratory and, therefore, no hypothesis can be stated at this time.

### 013

**Title:** Determinants of Generic Drugs Use

**Presenter(s):** Robin Richter

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** Generic competition in the pharmaceutical industry will be the focus of my presentation. When the patents on some of the wonder drugs start to expire, new competition arises through generic substitutes. It might be expected that when generic substitutes enter into the market with a drug that has the same chemical entity, that the existing market already has, suggest that the prices are more strongly influenced by this than by the introduction of an entirely different product. The original movers of the drugs in most cases will have the advantage over generic substitutes. Some people are uncertain about the generic brands while other people will try it just because they will save money.

### 014

**Title:** The Economic Causes of Internal Conflict

**Presenter(s):** Stephanie Montgomery

**Department:** Political Science

**Advisor:** Dr. Philip Baumann

**Abstract:** Because to prevent violent conflict from occurring, one must first recognize and understand the conditions that make a country likely to experience conflict and the causes of that conflict. Because development is often unequal in terms of who receives its benefits, in most cases the gap arising between those in Urban areas and those in Rural areas, the disparity that arises can lead to conflict and can be a source of violent internal conflict within a nation-state. In my paper I first analyze the causes of internal conflict in developing countries as laid out in the literature on this subject, then I analyze data from several African nations. Included will be Gini indexes for the countries (measures of inequality in wages—measures the gap between the rich and the poor), information on access to education, healthcare, and water for both rural and urban areas and other indicators of the distribution of the wealth and resources that come with development. Controlling for other potential causes of internal violence, I will complete a data analysis of the information I gather to determine if there is a positive relationship between economic disparity in developing countries and the occurrence of conflict in these countries.

### 015

**Title:** Comparison of Gov. Ventura's and the Past Two Administrations Funding

**Presenter(s):** Sara Tofte

**Department:** Political Science

**Advisor:** Dr. Paul Kramer

**Abstract:** The topic of my presentation compares Gov. Ventura's and the past two administrations funding. This will be a formal traditional paper with statistics and data proving that Gov. Ventura has ignored greater Minnesota in funding. I will answer the question that Gov. Ventura has been ignoring a great part of Minnesota and that most of his funding goes to the cities area. In the first part of my paper, I will discuss Gov. Ventura's funding and then former Gov. Carlson's funding and finally Perpich's. In the last part of my paper, I will compare the three administrations to show the difference.

### 016

**Title:** Should the CMU Add Another Service Area, if So What?

**Presenter(s):** Jeremy Johnson

**Department:** Marketing

**Advisor:** Clyde Vollmers

**Abstract:** A presentation about if the CMU should add another service for students? The presentation will include my findings after surveying over 350 MSU students along with personal observation and interviews with CMU directors. This presentation will include numerous charts and graph depicting what the MSU students want, along with my recommendations based off of all the data. Do you want to know what new improvement are going to be made in the CMU during the next couple of years? What new services will be offered? Then you can either wait until school starts next year, or come to this presentation, where I have the inside scoop, and the data to prove it!

### 017

**Title:** HIV Risk And College Students

**Presenter(s):** Scott Haugen

**Department:** Counseling and Student Affairs

**Advisor:** Dr. William Packwood

**Abstract:** This presentation will offer a brief discussion of the prevalence, characteristics, and treatment of HIV-infected individuals. There will be a focus on college students as a high-risk cohort. Education and training will be stressed as the best options for prevention of future HIV infections.

### 018

**Title:** Duty and Reverence: An Emotive Aspect to a Deontic System of Morality

**Presenter(s):** Tiffany Johnson

**Department:** Philosophy

**Advisor:** Dr. Theodore Gracyk

**Abstract:** The paper I will be presenting, Duty and Reverence: An Emotive Aspect to a Deontic System of Morality, was originally written for Ethics 300. Deontological systems of morality have been critiqued (especially by feminists) to be missing an important element: the emotional element. According to critics a deontic system of morality does not provide the necessary direction for moral problems that occur within personal relationships. For instance, many critics view the relationship between mother and child as a relationship where moral responsibilities do not stem from a sense of duty but from emotion (i.e. love).

My paper argues that deontic systems of morality, in particular a Kantian system of morality, can have an emotional aspect and is thus relevant when determining moral responsibilities in a personal relationship. Kant's Groundwork of the Metaphysics of Morals has been misinterpreted by feminist critics, in particular Kant's concept of reverence. Most interpretations of Kantian morality virtually ignore reverence and the meaning and importance Kant attaches to it. In my paper I present a new and different reading/interpretation of the concept of reverence; one which saves Kant from his critics.

## 019

**Title:** The Virtual Cell  
**Presenter(s):** Sarah Rejsa  
**Department:** Biology  
**Advisor:** Dr. Mary Shimabukuro

**Abstract:** The Virtual Cell is a development project of the North Dakota state University World Wide Web Instructional Committee (WWWIC). The World Wide Web Instructional Committee was formed in 1995 by a group of faculty with a strong, active interest in applying information technology for instructional purposes. The Virtual Cell is a project, which creates an environment where students can learn about the structure and function of the cell. The program introduces students to the material through the use of experiments.

Virtual Reality Modeling Language was chosen as the language for development of the Virtual Cell environment. It provides an active, and navigable environment. This environment is also being designed as a LambdaMoo application. That is to say that they have chosen LambdaMoo as the server to control the multiple rooms. The Cell, and the interior of each organelle will be a room in the LambdaMoo environment. This will create the Virtual Cell as a multiple user environment.

During the presentation I will download the current version of the Virtual Cell and demonstrate how the game is played. I will also present background information on the Virtual Cell, and show participants how to access the Virtual Cell on your computer.

## 020

**Title:** Metaphorical Implications of Snow in "The Dead" by James Joyce  
**Presenter(s):** Carla Isom  
**Department:** English  
**Advisor:** Dr. Sandra Pearce

**Abstract:** In James Joyce's short story "The Dead," the snow serves as a metaphor for what Gabriel Conroy covers up: his Irish heritage, his low self esteem, and his lack of depth concerning love. But the snow also serves as a metaphor for Gabriel's awakenings concerning the past, present, and future, and ultimately provides a sense of hope. The story opens and closes with snow falling, and it is the frame in which Joyce has placed his characters. The snow is indicative of how the evening's events progress, from a light cover of laughter and fun to a heavier-weighted atmosphere that is both pensive and hopeful.

## 021

**Title:** Let's Go Geoboarding  
**Presenter(s):** Nicki Pretzer  
**Department:** Education/Math  
**Advisor:** Dr. Geok Lian Ng

**Abstract:** To many people, math is not a fun subject. Working with numbers and solving long equations can be difficult. The way math problems are presented is important, especially to young children. Teachers need to make it seem possible, fun and interesting. Geoboards are one way to do this. They turn math into a hands on, creative experience. Not only do geoboards make math fun, they teach children a great deal. This presentation will give several examples of ways in which to use geoboards. A demonstration of activities will also be given. This presentation, while focusing on the math aspect, will show the possibilities for games and creativity that geoboards offer. Geoboards fit into classrooms at many levels and can be used for many things. Teachers are always looking for new things to use in their classroom or for new uses of old things. This presentation's goal is to offer those new ideas through a geoboard.

## 022

**Title:** The Roman Religion and Christianity  
**Presenter(s):** Phillip Kelsven  
**Department:** History  
**Advisor:** Dr. Irwin Smemo

**Abstract:** My presentation will regard the evolution of the Roman religion from local deities to the state of religion. I plan to discuss the evolution of gods into physical and human forms and later to "Caesar worship" leading to Christianity. My contention is that Christianity, as we know it, is heavily influenced by the ancient Roman religion and its success is due in large part to the Roman Empire.

## 023

**Title:** The Synthesis of Conducting Inorganic Polymers  
**Presenter(s):** Sudeep Basnet  
**Department:** Chemistry  
**Advisor:** Dr. Gerald Lesley

**Abstract:** The search for new materials based on organic and inorganic molecular compounds that mimic the electrical conductivity in metallic compounds is a rapidly growing area of research in chemistry. We are interested in preparing novel polymeric compounds incorporating boron atoms into the polymer backbone since these have distinctive properties that are difficult to incorporate into organic polymers. The boron atoms serve to extend the conjugation of the polymer (a necessity for conduction) and also provide sites for electron doping (p- or n-type) by virtue of their reactivity leading to variable electronic nature.

We have begun to prepare a series of polymeric precursors based on the compound maleonitrile dithiolate (mnt) since thiolated derivatives of this type are known to exhibit enhanced molecular conductivity. Polymeric derivatives incorporating mnt units are virtually unknown and related compounds that have been reported have not been studied for the properties of interest to this work. A series of thio-substituted derivatives have been prepared which will serve as oligomers for the study. Reactions of the nitrile moieties with the appropriate boron containing reagents should provide polymeric materials via reactions with the nitrile functionalities

## 024

**Title:** Population Policy  
**Presenter(s):** Gemma Luyima  
**Department:** Sociology  
**Advisor:** Dr. Joel Charon

**Abstract:** The world today consists of 6 billion people. Some countries encourage people to have more children others are against it. Countries against births have used different programmes included in population policy. I will talk about some of the programmes Asian countries have used to control population growth.

## 025

**Title:** Learned Recognition by Zebra Fish (*Brachydanio rerio*) of Novel Predator Odor Following Non-Simultaneous Presentation of Alarm Pheromone in Skin Extract and Predator Odor

**Presenter(s):** Nichole Korpi

**Department:** Chemistry/Biology

**Advisor:** Dr. Brian Wisenden

**Abstract:** Fishes in the superorder Ostariophysi (minnows, characins, catfish, etc) possess specialized epidermal cells that contain an alarm pheromone. These cells lack a duct to the skin surface. The alarm pheromone is released when the skin is damaged, such as occurs when the fish is grasped by a predator. Thus, the pheromone serves as a reliable indicator of predation risk. Fish can learn to recognize and associate novel odors, such as the odor of a predator, when a novel odor is encountered simultaneously with alarm pheromone. Thereafter, the novel cue is recognized as an indicator of risk and induces antipredator behavior. In nature, the odor of a novel predator may not be detected simultaneously with alarm pheromone. Can a delay between the presentation of alarm pheromone and novel predator odor still result in associative learning? We presented zebra danios with the odor of northern pike (*Esox lucius*) 5 min after presenting them with either alarm substance or water (control). During a predation event, 5 min is a long time. When later retested with pike odor alone, zebra fish conditioned with alarm substance significantly increased antipredator behavior ( $z = 1.91, P = 0.024$ ) but control fish did not ( $z = 0.10, P = 0.464$ ). These data show 1) that learned recognition of predation risk is robust enough to accommodate ecologically realistic temporal shifts in stimulus presentation, and 2) confirm that zebra danios are good test organisms for learned risk aversion and potentially the developmental and genetic mechanisms that support these behaviors.

## 026

**Title:** A Test For An Injury-released Alarm Cue In Bluegill Sunfish

**Presenter(s):** Stephen Behringer

**Department:** Biology

**Advisor:** Dr. Brian Wisenden

**Abstract:** Chemical cues provide important information about the environment and aid animals in finding food, avoiding predators and courtship and reproduction. In aquatic environments, injury-released chemical cues from one's own species indicate the presence of an active predator. Detection of these cues evokes an antipredator response that reduces the probability of predation, thus, the behavioral response is an adaptive use of environmental information. Olfactory assessment of predation risk is widespread among aquatic life forms. Alarm cues are especially well developed in a special group of fishes, the superorder Ostariophysi, which have specialized skin cells containing an alarm pheromone. However, a number of fish species outside of the Ostariophysi also demonstrate injury-released alarm pheromones. Sunfish are not in the Ostariophysi but fall prey to a number of predators and should potentially benefit from a chemical alarm signal. We tested juvenile bluegill sunfish *Lepomis macrochirus* for an antipredator response to one of three test solutions: 1) water, to control for the effect of stimulus presentation, 2) injured cichlid cue, to control for general cues released from injured fish, and 3) injured sunfish cue. Reduction in activity and movement to the bottom were the two behavioral criteria used to determine the presence of an alarm reaction. We found no effect of the test stimuli on sunfish activity ( $KW = 1.58, P > 0.05, n = 45$ ) or vertical distribution ( $KW = 3.65, P > 0.05, n = 45$ ). These data indicate that bluegill sunfish do not exhibit alarm behavior in response to injury-released chemical cues from their own species.

## 027

**Title:** Depression

**Presenter(s):** Kristin Gehringer

**Department:** Counseling and Student Affairs

**Advisor:** Dr. William Packwood

**Abstract:** This presentation discusses the prevalence, common symptoms, and counseling treatments of depression. Over 17 million Americans each year suffer from this serious mental illness. Common symptoms may include feeling depressed for most of the day and a loss of interest and pleasure in activities. Two primary counseling treatments discussed are cognitive-behavioral therapy and interpersonal therapy.

## 028

**Title:** Service Learning in the Disciplines

**Presenter(s):** Siobhan Kleinwolverink

**Department:** Student Development

**Advisor:** Kathy Scott

**Abstract:** A program that was first introduced to Moorhead State University's classrooms in 1995, Academic Service Learning has become a fresh wave in institutional education. The Academic Service Learning Center, located in Comstock Memorial Union room 225, provides a unique teaching tool for faculty members of the University. Service Learning is a teaching/learning strategy that combines meaningful community and/or public service with classroom experience to achieve academic enrichment, encourage civic responsibility, and enhance personal growth. On the MSU campus, Service Learning has been used in many different departments, including; Art, Education, Health, Speech Language and Hearing Sciences, Counseling and Student Affairs, Social Work, and Humanities. To date, a total of 1,044 students have completed 22,095 service hours to the Fargo/Moorhead Community! An astounding 92% of those students, when surveyed, said that they intended continuing their community involvement. It is the goal of the Academic Service Learning Center to provide quality service learning opportunities that will enrich the education and development of MSU students while fulfilling real needs within the community.

## 029

**Title:** Competence of Antipredator Behavior in Fish Larvae Under Parental Care

**Presenter(s):** Joseph Mullins

**Department:** Biology

**Advisor:** Dr. Brian Wisenden

**Abstract:** Cichlids are unusual among fishes in that they exhibit prolonged biparental care of their eggs and defense of the developing young. The period of care in their natural habitat lasts for more than 6 weeks. The point at which care ends likely depends on antipredator competence in the young. Convict cichlids also engage in alloparental care - the care of each other's offspring. The conditions for which this is beneficial for the adopting parents depends on the antipredator competence of the host's young relative to the adopted young. For both of the reasons above, it is important to quantify the development, or ontogeny, of antipredator competence in larval convict cichlids. High-speed video analyses of antipredator responses of young convict cichlids were used to determine size-dependent shifts in antipredator behavior during the period of parental care. In response to simulated predator attacks, cichlid larvae significantly increased their maximum velocity, average velocity, and total distance traveled with increase in size ( $P < 0.05$ ). As fish grow larger they are able to evade predators due to their body's ability to swim faster and farther. This study provides insights into the evolution of parental care and reproductive investment.

### 030

**Title:** Architect Julia Morgan

**Presenter(s):** Heidi Leinen

**Department:** Art

**Advisor:** Dr. Kathleen Enz Finken

**Abstract:** Born near the turn of the twentieth century, Julia Morgan faced many obstacles in pursuing her dream of becoming a professional architect in the male-dominated field. Despite the discouragement, she went on to design almost 800 buildings during her fifty year professional career. Her distinct style emphasizes function before form, while successfully blending characteristics from several different architectural styles. Julia Morgan can perhaps be considered the pioneer of female architects in America.

### 031

**Title:** The Political Role of Women in the Middle East

**Presenter(s):** Stephanie McCleerey

**Department:** Political Science

**Advisor:** Dr. Paul Kramer

**Abstract:** The political role of women in the Middle Eastern countries is a changing role in these third world countries, which are undergoing development. Egypt, Israel, and Turkey are three countries that will be discussed in the paper. The reason for this selection is the geographical region and existing data/literature on these three. This paper will identify the relation between the political role of women in society and the variables influencing this constantly changing role. While many variables exist today as having an affect on women's role in society, for the purpose of this paper I have chosen to focus on two variables that have a relation to women's political role; state policy and political culture determine the political status of women in developing countries.

In this paper I will define the political "status" of women in the countries by covering their political rights, which have been guaranteed to them by the government. I will then move into the discussion of how the government is influenced by the political culture of the state. Once the "status" of women is established, the next appropriate step is to note the differences that exist in these countries today. The intention then will be to note the differences among the countries and then to explain why they exist. The differences will be focused in terms of the two variables that affect the role of women. I will conclude, after properly analyzing the research collected that the status of women is dependent on state policy and the political culture of which the country is dealing with.

### 032

**Title:** The Relationship Between Self-perception and Jealousy

**Presenter(s):** Jacqueline Hendricks

**Department:** Psychology

**Advisor:** Dr. Christine Smith

**Abstract:** Jealousy is believed to be generated by a threat to or a loss of a valued relationship due to another (real or imaged) person's competition for the attention of one's partner. The self-evaluation theory of jealousy states that individuals compare themselves to others based on characteristics that are important to their own self-definition. Based on such findings, the current research examined the relationship between one's perceived body image and one's tendency toward jealous feelings and behaviors. The data collected revealed a moderate relationship between jealousy scores and self-perception ratings,  $r = .48$ ,  $p < .01$ . The relationship was found to be stronger in men than in women,  $r = .69$ ,  $p < .01$  and  $r = .39$ ,  $p < .01$ , respectively.

### 033

**Title:** An Analysis of the Creation Account given in Ovid's Metamorphosis

**Presenter(s):** Shawn Thorson

**Department:** Humanities

**Advisor:** Dr. Robert McGahey

**Abstract:** This presentation will concern Ovid's creation account as given in Book I of his Metamorphosis. I will provide a detailed explanation of all the elements that are incorporated into this account, including chaos, the prima materia, classical atomic theory, the demiourgos, the four elements, the five climatic zones, the winds, the origin of life, and the divinity of man. I will explain the schools of thought and sources of information existent in Ovid's lifetime that influenced his understanding of the cosmos and creation, and I will list parallels between the Metamorphosis account and the accounts given in various other creation stories of the classical world.

### 034

**Title:** Effects of War or Conflict on Social Development in Third World Countries

**Presenter(s):** Erin Prochnow

**Department:** Political Science

**Advisor:** Dr. Paul Kramer

**Abstract:** The effect of war or conflict on the social development of third world countries is dependent primarily on the education of the individual affected. With the main focus on two countries who have had a war or conflict in recent years. Chile is an example of a South American country that has experienced developmental difficulties. Botswana located in Africa, is another that has faced difficult developmental troubles. What differences in adjustment are attributable to the education of the individual? Is an educated individual's employment opportunity equal to that of an uneducated person? Are the uneducated people developing and contributing to society equal to those who are educated?

### 035

**Title:** To the Lakes: The Lure of Minnesota

**Presenter(s):** Scott Hochhalter

**Department:** Mass Communication

**Advisor:** Wayne Gudmundson

**Abstract:** From concept to completion, the Prairie Documents Photographic Book Series Assistant Editor Kelly Rae Yanke and Design Editor Scott Hochhalter will explain their experiences in creating the book "To the Lakes: The Lure of Minnesota." From working on the original idea, taking photographs for the project, sequencing and editing of images, image calibration, design and layout on computer, through to the final printing and marketing of our book, we saw and did it all. We even registered for an ISBN and ordered the bar code. Our experiences were the most valuable and real to working life that we had in college.

A continuous slide show of images from the book will accompany the presentation. Interesting antidotes and specific images may be addressed. The book is currently available at MSU's Bookstore as well as other local booksellers for \$16.95.

### 036

**Title:** Growth of the Credit Card Industry

**Presenter(s):** Tessa Lunders

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** My paper will discuss the growth of the credit card industry in the United States. I will explore the history of credit cards and the effects that their usage has had on consumers and our society as a whole. I will also examine the components that have contributed to the growth of total credit card use, namely using regression analysis to determine what factors have contributed to the increase in the number of households that own and use credit cards.

### 037

**Title:** Demonstration and Characteristics of a Disturbance Phenomene in Fathead minnows

**Presenter(s):** Scott Pohlman

**Department:** Biology

**Advisor:** Dr. Brian Wisenden

**Abstract:** Chemical information pervades aquatic environments. These cues mediate many predator-prey interactions in aquatic environments. The class of cues that have received the most attention are injury-released chemical cues. Disturbance pheromones are chemical signals released when a fish is disturbed, but not injured. By detecting and responding to this type of cue, a fish receives information about predation risk early in the escalation of predator-prey interactions. Disturbance pheromones are known for crayfish, Iowa darters and one tadpole. The leading hypothesis for the active ingredient is urinary ammonia. In this study we tested for a sudden release of ammonia by startled fathead minnows. We then tested individual minnows for an antipredator behavioral response a weak solution of ammonia

### 038

**Title:** Learned Recognition of Novel Predator Cues by a Flatworm

**Presenter(s):** Melissa Millard

**Department:** Biology

**Advisor:** Dr. Brian Wisenden

**Abstract:** Flatworms are simple animals in the Phylum Platyhelminthes whose "brain" is nothing more than a slight swelling of nerve bundles near the front end of the animal. In our earlier work we demonstrated that this group of organisms has a well-developed antipredator response to injury-released cues from their own species. This alarm pheromone (chemical signal) is a reliable indicator of an active predator. Avoiding this cue and stimuli associated with it would reduce the risk of predation. Fish and at least one insect can learn to recognize novel indicators of risk by associating them with alarm pheromone. We exposed sunfish-naïve flatworms to the odor of sunfish simultaneously with either water (control) or alarm pheromone. We waited 2 days then retested the same flatworm with sunfish odor alone. If flatworms can learn to fear novel cues, then the group conditioned with sunfish+pheromone should respond aversely to sunfish odor when retested. Control flatworms should not respond to sunfish odor on the first presentation (no pheromone) nor when retested later (still an irrelevant stimulus).

### 039

**Title:** Self-Esteem in an Adolescent World

**Presenter(s):** Julie Buerkle

**Department:** Counseling and Student Affairs

**Advisor:** Dr. Jill Schoen

**Abstract:** My presentation will cover the topic of self-esteem in adolescence. I will be looking at the issue from a school counseling point of view. The main areas to be addressed are the definition of self-esteem, prevalence (who it affects and how often), characteristics of low and high levels of self-esteem, and suggestions for counselors to enhance self-esteem in high school students. I will be using PowerPoint for my presentation.

### 040

**Title:** Neuroscience Laboratory and Classroom Activities

**Presenter(s):** Jessica Zehr

**Department:** Biology

**Advisor:** Dr. Mary Shimabukuro

**Abstract:** The National Association of Biology Teachers and the Society of Neuroscience designed the curriculum material presented in this workshop. The curriculum was designed to bring neuroscience into the classroom in a simple, meaningful way for the students. In the classrooms implementing this material, the teachers and students have the unique opportunity to work directly with neuroscientists in their area. The activities in the curriculum material provide a way for students to understand the difficult concepts of neuroscience by using their own bodies and things available in the school environment. During this workshop I will explain the set up of the material, the kinds of activities included in the material, and also demonstrate a simple activity that can be used by any classroom teacher. This activity will demonstrate the ability to sense two points of pressure on the skin by using toothpicks separated by differing distances and how the brain deciphers the information collected by the skin receptors.

Bellamy, M.L. & Frame, K. (Eds.). (1996). *Neuroscience Laboratory and Classroom Activities*. National Association of Biology Teachers and Society for Neuroscience. White Plains, MD: Automated Graphics.

### 042

**Title:** Quantification of Nucleotides

**Presenter(s):** Erik Pederson

**Department:** Chemistry

**Advisor:** Dr. P. B. Marasinghe

**Abstract:** Current methods available for quantification of nucleotides are radioactive labeling and high-pressure liquid chromatography, or a combination of both. These current methods are expensive and poses risks to individuals performing the radioactive labeling. It also entails disposal problems as well. An electrochemical quantification of nucleotides in solution with chemically modified electrodes to determine the concentration of dilute solutions of the nucleotides ATP and GTP is investigated. This alternative method may be more accurate, cost effective, and safer than the currently used methods.

### 043

**Title:** The Effect on Amyotrophic Lateral Sclerosis (Lou Gehrig's Disease) on Communication

**Presenter(s):** Carrie Soderholm

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** As a student in the Speech, language and hearing sciences department, I will be conducting a research project on the communication effects of Amyotrophic Lateral Sclerosis, more commonly known as Lou Gehrig's Disease. Lou Gehrig's Disease is a fatal, progressive neuromuscular disease that is caused by the destruction of nerve cells in the brain and spinal cord. Through research and testing I expect to find the intelligibility of individuals with Lou Gehrig's Disease to deteriorate as the disease progresses

### 044

**Title:** Gender Dysphoria

**Presenter(s):** Shannon McCloskey

**Department:** Sociology

**Advisor:** Dr. Jan Fiola

**Abstract:** Gender dysphoria is becoming increasingly prevalent in our society. In recent years, there has been strong growth of a social movement advocating for the rights of transsexuals. This paper includes a description of major organizations, legal and human rights, a history of transsexualism including definitions and terminology, role conflicts, and identity formation. It also provides a qualitative look at portrayals of transsexuals, transvestites, cross-dressers, and drag queens in various media such as magazines, television, movies, and print stories

### 045

**Title:** Adults with Learning Disabilities

**Presenter(s):** Mandy Parpart

**Department:** Counseling and Student Affairs

**Advisor:** Dr. William Packwood

**Abstract:** Learning disabilities affect approximately 6 million adults and affect their lives daily. In this presentation I will define learning disabilities, discuss their prevalence, give some characteristics of individuals with learning disabilities, and list treatment options and resources. It will be a Powerpoint presentation.

### 046

**Title:** The Effects of Gambling on Personal Debt

**Presenter(s):** Marshall Kilzer

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** This paper studies the effect of gambling on personal debt. Regression analysis is used to determine if as gambling increases so does personal debt. I will run a regression that will determine whether or not a person gambling debt has anything to do with the amount of income that the person makes as well as the availability of gaming in their area. The types of gambling I will look are games that can only be played in casinos, such as, slot machines, card games, and pull-tabs. I feel confident that my regression will show that a person's debt will increase with income as well as with the increased availability of casinos.

### 047

**Title:** Costs and Benefits Associated with Implementing an Indoor Water Slide

**Presenter(s):** Lindsey Ellingson

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** My study analyzes the costs and benefits associated with implementing a water slide in an indoor pool. This study will help determine the feasibility of implementing an indoor water slide in the Summit Activities Center in Yankton, SD. I have completed a previous study that concluded a demand for the water slide. However, this study will go a step further and apply economic theory and quantitative analysis to determine if the benefits outweigh the costs. It involves analyzing the private and social costs and benefits associated with implementing a water slide in an indoor pool.

### 048

**Title:** Confidence Building in a Post-Conflict Environment

**Presenter(s):** Mike Welken

**Department:** Political Science

**Advisor:** Dr. Andrew Conteh

**Abstract:** "After Genocide and/or war how does a nation put itself back together to be both economically and socially prosperous?" One of the answers to this complex question is something called confidence building. Confidence building measures have been used all around the world to assist in resolving conflicts. I'll be examining confidence building, its role in creating and maintaining peace, and also how one must apply confidence building to resolve unilateral conflicts. Through looking at the roots of confidence building and a few selected case studies, one can see that confidence-building measures in post-conflict situations have assisted in creating and keeping peace.

### 049

**Title:** Developmental Differences Between the U.S. and Latin America

**Presenter(s):** Pat Strand

**Department:** History

**Advisor:** Dr. Larry Witherell

**Abstract:** The vast difference in development between the United States and Latin America has left many seeking an explanation. This paper traces the various reasons to a common source, geography and the role it assumed in the region's development.

### 050

**Title:** Learning Chinese

**Presenter(s):** Aaron Johnson

**Department:** Languages

**Advisor:** Dr. Jenny Lin

**Abstract:** I will be presenting a lesson on the Chinese language. This will mainly entail the writing of characters so that audience members will understand Mandarin Chinese a little better. I will also discuss my observations while traveling and studying in China last summer.

## 052

**Title:** Human Color Perception in Relation to Emotion

**Presenter(s):** Amanda Herrmann

**Department:** Psychology

**Advisor:** Dr. Ernest Hallford

**Abstract:** Research presented by Karp & Karp (1988), Boyatzis & Varghese (1994), and Terwogt & Hoeksma (1995) indicates a certain relationship that exists between color perception and emotion. We perceive certain colors as having emotional qualities. Schesinger (1979) explained this concept as physiognomic perception, or in other words, we perceive a mood or emotional quality when color is presented as a stimulus. Not only does there appear to be sufficient evidence as to the link between color perception and emotion, but research by Terwogt & Hoeksma (1995) also supports the fact that many specific colors are related to specific emotions. The purpose of this research was to examine color-emotion associations. In the experiment, participants were presented with various colored rectangles. They were then asked to rate how appropriately each color applies to a variety of emotions listed on a questionnaire. It was hypothesized that when participants are asked to rate how well an emotional word or feeling describes a particular color, results will show that specific emotions will frequently be associated with a specific color. As predicted, the results of this experiment provided support for this hypothesis and for the established claim that perception of color involves perception of emotion.

## 053

**Title:** Golan Heights Solution

**Presenter(s):** Jan Krasny

**Department:** Political Science

**Advisor:** Dr. Andrew Conte

**Abstract:** My presentation will observe the conflict between Israel and Syria, focusing mainly on the issue of returning Golan Heights to Syria, which includes the effects not only political but socio-economical as well. I will present the argument from both sides of the issue, to return or not to return Golan Heights. I will also present a hypothetical resolution to this conflict, based on the evidence that I have found in my research.

This presentation will be based on a paper for International Conflict Resolution, and should take about 10 minutes.

## 054

**Title:** Josephine Butler and the Contagious Disease Acts

**Presenter(s):** Katie Nelson

**Department:** History

**Advisor:** Dr. Paul Harris

**Abstract:** In 1864 and 1866 the British Parliament enacted the Contagious Disease Acts as pragmatic measures for the control of venereal disease among the armed forces. They were quite unaware of uproar that would follow. Middle class Victorian women would take this seemingly innocent act and turn it into an outcry against the Victorian sexual ethics of the time. Led by the energetic and driven, Josephine Butler, these women used religion and moral persuasion to not only help prostitutes by advocating for the repeal of the Acts, but also to rebel against male authority and the double standard in Victorian morality.

## 055

**Title:** Eduard Bernstein's Influence on the Development of Evolutionary Socialism

**Presenter(s):** Morgan Huseby

**Department:** History

**Advisor:** Dr. Diane Farrell

**Abstract:** With the death of Karl Marx and Friedrich Engels, the socialist movement was split between orthodox and revisionist Marxists. Of these revisionists perhaps the most significant was Eduard Bernstein. What sets Bernstein apart from other revisionists was that along with showing errors in Marx's analysis of capitalist society, he provided a new analysis and a new methodology for the creation of the socialist state. Bernstein's methodology would be known as evolutionary socialism and would become the basis for modern European social democracy. This presentation will examine this philosophy and the events in Bernstein's life that influenced the development of evolutionary socialism.

## 056

**Title:** Freshman Alcohol Behaviors and First Semester Academic Performance.

**Presenter(s):** Susan Kelley

**Department:** Social Work

**Advisor:** Dr. Shawn Ginther

**Abstract:** The purpose of this research is to explore the possible correlation of drinking behavior and academic performance among M.S.U. freshman living in the residence halls. A random sample of this population will be interviewed using a survey instrument designed to ascertain information about drinking behavior and attitudes as well as G.P.A.'s and satisfaction levels regarding academic performance. It is hypothesized that a positive correlation will be found between high levels of drinking and low levels of academic performance. Implications for the university system will also be addressed.

## 057

**Title:** PowerPoint with Sound

**Presenter(s):** Joe Lango

**Department:** Instructional Technology

**Advisor:** Dr. Rhonda Ficek

**Abstract:** I will be presenting how to do Microsoft PowerPoint with audio. It is relatively easy and looks sharp to create a presentation and burn it to a CD.

## 058

**Title:** An Analysis of John Zorn's Music

**Presenter(s):** Al Albers

**Department:** Music

**Advisor:** Dr. Ross Feller

**Abstract:** "This paper is written in response to composer John Zorn's 1993 statement that his music will create "a real interesting game of analysis for musicologists in the future, a new kind of analysis." In presenting my research, I will examine and analyze in detail one of Zorn's album length compositions. My analysis will begin by explaining Zorn's so called "file-card" method of composition. Then, with an understanding of the composer's unique aesthetic direction, I will break down each section of his piece, exposing and tracing the development of specific musical imagery (as it relates to the overall theme of the piece.)"



## 059

**Title:** Numerical Simulation of Self-Interacting CDM Structure Formation

**Presenter(s):** George Newman

**Department:** Physics and Astronomy

**Advisor:** Dr. Matthew Craig

**Abstract:** Numerical simulations of Cold Dark Matter (CDM) models for large-scale structure formation in the universe agree well with observations of the distribution of matter in the universe on the scales above 20kpc). However, the best numerical simulations based on CDM models to date result in galactic halos (on the scale of 1-10 kpc) with central densities significantly higher than those observed in nature. We propose to investigate the possibility that short-range self-interaction between CDM particles could be responsible for the discrepancies between calculated and observed central densities in galactic halos. We will modify a standard gravitational N-body simulation to include the annihilation of CDM particles.

## 060

**Title:** The Effects of Antidumping Policies in the Steel Industry on the Social Welfare of the United States

**Presenter(s):** Jay Beutler

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** The purpose of this presentation is to determine if the primary justification for the antidumping law is really more political than economic. It will examine whether the reality of antidumping practice matches its arguments by antidumping supporters. The presentation will take an in-depth look at antidumping policies affecting the steel industry specifically and do a cost-benefit analysis to determine the social impact of antidumping legislation on the United States. Empirical analysis will allow for a cost-benefit analysis of the effects of enforcing antidumping legislation in the steel industry and will explain the effects it has on the social welfare of the United States.

## 061

**Title:** The Interaction of Ambient Temperature and Cognitive Tasks: The Effects of Heat Stress on Memory Recall.

**Presenter(s):** Chad Kammerer

**Department:** Psychology

**Advisor:** Dr. Ernest Hallford

**Abstract:** It has been shown that ambient temperature can interfere with learning. Expanding on this literature, one group of students were exposed to a temperature of 72 degrees Fahrenheit, another to a temperature of 90 degrees Fahrenheit. The results supported the hypothesis that the latter would recall less.

## 062

**Title:** The Confederate Constitution in Theory and Practice

**Presenter(s):** Joe Thronson

**Department:** History

**Advisor:** Dr. Henry Chan

**Abstract:** In this paper I examine a brief history of the Constitution of the Confederate States of America. It is my contention that the framers of the Confederate Constitution intended to limit the power of the federal government of the new Confederacy by adopting an amended version of the United States Constitution but that the realities of the Civil War forced the government to resort to extra-constitutional measures. The first half of my paper examines the Confederate Constitution and its differences from the United States Constitution. I will also discuss the political reasoning for these alterations. The second half of my paper will examine the difficulties in governing the Confederacy under a limited constitution and how Southern leaders rectified such problems. Opposition to such actions will also be examined.

## 063

**Title:** Introduction to Chemical Education Web Sites

**Presenter(s):** Kim Lester

**Department:** Chemistry

**Advisor:** Dr. Mary Shimabukuro

**Abstract:** This workshop will introduce participants to websites that have educational materials of value to middle/secondary chemistry teachers. Participants will be introduced to several websites included in the science section of the "Virtual Library." Several examples of materials found at chemical education websites will be demonstrated. It is important for teachers to learn how to use the WWW as a source of educational materials. The more information a teacher has to give to his/her students the more the students will become interested in the material and enjoy the class.

## 064

**Title:** Determinants of the Number of Casinos Per State in America

**Presenter(s):** Shane Kroepflin

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** This study is about what dictates the number of casinos per state. The variables that I will use to determine this are population per state, the number of indian reservations per state, and the average income per state. The purpose is to find a direct correlation between these three variables and the actual number of casinos per state.

## 065

**Title:** The Importance of Racial Attitudes in Political Affiliation

**Presenter(s):** John Smithwick

**Department:** Sociology

**Advisor:** Dr. Susan Humphers-Ginther

**Abstract:** The lack of research investigating political affiliations and prejudice attitudes is surprising. There is an abundance of research articles available for either political affiliations or prejudice attitudes, but I found a lack of articles that combined the two concepts. The intention of this research was to investigate the relationship between political orientation and racial attitudes. This was accomplished by creating two indexes, a political orientation index and a racial attitudes index. The political orientation index consisted of the PARTYID and POLVIEWS categories of the 1996 General Social Survey (GSS) provided in the student version of SPSS. The racial attitudes index consisted of the RACDIF4, RACPRES, and RACSEG categories of the GSS provided in the student version of SPSS. The importance of this research is to shed further light on how those with prejudice attitudes define themselves.

## 066

**Title:** Seasonal Affective Disorder (SAD)

**Presenter(s):** Carolyn Swanson

**Department:** Counseling and Student Affairs

**Advisor:** Dr. Jill Schoen

**Abstract:** Seasonal Affective Disorder (SAD) is a disorder which has also been called the "winter blues." It affects as many as 11 million people in the United States. In this Power-Point presentation, the definition, the prevalence, the symptoms, and the treatment for SAD will be discussed.

## 067

**Title:** Interest Rates, Population, and Construction Employment in Fargo-Moorhead

**Presenter(s):** Brian Wentz

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** I will be presenting at the 2000 SAC, a regression analysis on the impact of interest rates and population growth on construction employment in Fargo-Moorhead. As I research my project I will be hypothesizing that the interest rate will be negatively correlated to construction employment, while as population grows in Fargo-Moorhead we will see increasing numbers of people employed in construction jobs. I will be gathering my data from various web sites. I plan to present with the Microsoft Powerpoint program to make the presentation as professional as possible.

## 068

**Title:** A Review of Human Rights Maintenance and Abuse in Northern Ireland 1969-1999

**Presenter(s):** Alastair Roderick

**Department:** Political Science

**Advisor:** Dr. Andrew Conteh

**Abstract:** I intend to present to the conference an overview of the contentious issue of human rights protection in Northern Ireland during the last three decades widely referred to as 'The Troubles'. This is a recognized era of civil conflict between distinct social and cultural groups and a period of continuous political intervention by many actors at both a parochial and nation-state level.

## 069

**Title:** Interactive Multimedia Content

**Presenter(s):** Erik Behrens

**Department:** Student Technology Team

**Advisor:** Dr. Rhonda Ficek

**Abstract:** My presentation will focus on my work that I have completed making interactive multimedia content for the student tech team and what I hope to use it for in the future. I'll be using a computer to show my past work.

## 070

**Title:** The Impact of Reduced Defense Spending on Economic Growth

**Presenter(s):** Curt Kuntz

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** My focus in this paper will center on the impact of reduced defense spending by the United States. Specifically, I will concentrate on its effect on overall growth of the U.S. My theory for this paper is that a country that has a relatively low ratio of military spending to GDP is likely to display long run growth performance.

The dissolution of the Soviet Union and the end of the Cold war has profoundly changed U.S. defense needs. Now it requires less money and fewer people than it did in the 40 years when the U.S. faced a hostile military superpower with a huge army poised on the borders of Western Europe. Reductions in defense spending have profound impacts on the private as well as the public sector. There is a reallocation of capital and human resources. There are also implications on the long-term growth of a country, which must be considered when looking at the efficiency gains or losses associated with lower defense spending.

The relationship between military spending and output growth is complicated by the fact that it has both short-run and long-run components, which may act in opposite directions. I will go into detail on both the short and long run components in my presentation. There are also other variables that must be taken into consideration when looking at this relationship that I will discuss.

## 071

**Title:** Database Interaction with Frontpage

**Presenter(s):** Jen Meier

**Department:** Student Technology Team

**Advisor:** Dr. Rhonda Ficek

**Abstract:** My presentation will be about creating form in FrontPage 2000 and having them interact with a database.

## 072

**Title:** Compulsive Eating Disorder

**Presenter(s):** Gabriel Monroe

**Department:** Counseling and Student Affairs

**Advisor:** Dr. Wes Erwin

**Abstract:** This presentation will offer a focus on the definition, prevalence, and symptoms of compulsive (binge) eating. Compulsive eating in relation to separation from parents, excessive codependency, dieting, and depression will be explored. In addition, the treatment of compulsive eating disorder will be discussed.

073

**Title:** Taxation and the Labor Force

**Presenter(s):** Cori Otto

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** In this presentation I will discuss taxation and its affect on the labor force participation rate. I have found the average income tax rate and labor force participation rate for various states, with these I will hopefully prove that an increase in a states' tax rate leads to a decrease in that states' labor force. I will then show the implications that occur as a result of different tax rates, including the labor leisure trade off, deadweight losses and the curious differences in how men and women react to changes in taxes.

074

**Title:** The Via Latina Catacomb in Rome: An Art Historical Examination of the Influence of Paganism on Early Christian Art

**Presenter(s):** Stephanie Pryor

**Department:** Art

**Advisor:** Dr. Kathleen Enz Finken

**Abstract:** "The paintings in the catacombs represent the earliest Christian art which is still extant today. By examining the Via Latina Catacomb in Rome, we learn a great deal about the cultural exchanges which occurred in the fourth century. Many of the painting which adorn the Via Latina are a fusion of pagan classicism and Christianity. The Christian appropriation of Roman painting styles, the depiction of Roman gods, and pagan iconography occurred because there was a "new" Roman Christian that emerged in the fourth century, who brought with him/her Roman cultural practices and beliefs. The goal of this presentation is to discuss the pagan influences in the Via Latina Catacomb, and to illustrate what conclusions art historians and archaeologists can draw from that."

075

**Title:** Title Not Submitted

**Presenter(s):** Dustin Rue

**Department:** Student Technology Team

**Advisor:** Dr. John Gaffrey

**Abstract:** Title Not Submitted

076

**Title:** A Cross-sectional Study of Rental Housing in the United States

**Presenter(s):** Tobis Funk

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** This presentation examines the cost of rental housing in various cities across the country. A regression analysis will measure the effect of a few major variables in determining rental prices. Data will be gathered based on the average price of rent for a standard two-bedroom, one-bath apartment.

077

**Title:** Using Perceptions to Encourage Smokers to Quit

**Presenter(s):** Tasha McGregor

**Department:** Psychology

**Advisor:** Dr. Richard Kolotkin

**Abstract:** The false-consensus theory suggests that people have a tendency to overestimate the percentage of others who agree with their own preferences, opinions, and behaviors. People see their own choices as being the appropriate choice, while responses not in agreement with theirs as uncommon or deviant. There are four general theoretical perspectives that may overlap and operate simultaneously to produce this phenomena. These include selective attention, logical information processing, and motivational processes. This purpose of this study was to combine these perspectives and manipulate their effects in a way to encourage people to quit smoking. Participants were given a short questionnaire before and after watching a video on the negative effects of smoking to determine if their perceptions of smoking had changed.

078

**Title:** "A Thought of Romans", "Love or Lonliness", and a Poem by King Solomon

**Presenter(s):** Jade Kendall

**Department:** English

**Advisor:** Mark Vinz

**Abstract:** A short story about a Vietnam veteran, who recently became a Christian, struggling with the demons of his past, present, and reconciling a relationship with his rebellious daughter. Followed by a Program of Poetry representing the Judeo-Christian tradition and from the perspective of a modern day Christian.

079

**Title:** The U.S. Army in the 21<sup>st</sup> Century

**Presenter(s):** Bradley Weigandt

**Department:** Political Science

**Advisor:** Dr. James Danielson

**Abstract:** In October 1999, the U.S. Army Chief of Staff, General Eric Shinseki, unveiled his plans to meet the army's vision of becoming more deployable, responsive, agile, versatile, lethal, survivable, and sustainable. These goals were reminiscent of the previous Army Chief of Staff General Dennis J. Reimer's 1996 release of the Army Vision 2010, which projected the goals which the army must meet to face the challenges of the 21<sup>st</sup> Century. Included in General Shinseki's means of meeting such goals is the eventual phasing out of the army's heavy tracked vehicles to be replaced with lighter wheeled vehicles. This aspect in particular has been a topic of debate amongst army officers over the last several months. The scope of this presentation will be to analyze the support of General Shinseki's plans among the army's officer corps.

080

**Title:** More Beneficial Learning Techniques for MSU Students

**Presenter(s):** Amand Alverson

**Department:** Social Work

**Advisor:** Dr. Shawn Ginther

**Abstract:** This research explores which learning techniques are more beneficial for a sample of students at Moorhead State University. Through conducting a random survey of the upperclassmen and interviewing a random sample of professors, this work identifies which teaching styles further personal satisfaction and better grades; and which do not lead to personal satisfaction and better grades. The core question of: What teaching styles are more effective in promoting learning, will include testing the hypotheses that certain teaching styles enhance certain aspects of students' learning.

## 081

**Title:** Economic Factors Influencing Sports Teams: The English Premier League

**Presenter(s):** Gagandeep Sethi

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** For my Econ 498 presentation I intend to analyze clubs in the English Premier League. Data will be gathered from all twenty English Premier League football clubs, and then plugged into a regression analysis. My intention is to compare and contrast the different clubs in the top flight and ultimately work out which are in the most stable, and which are in the least stable financial position, based upon the various economic factors influencing the analysis of each football club.

## 082

**Title:** What Do People Want? Women, Men, and the Desirability of Attractiveness in Partners

**Presenter(s):** Jennifer Iveland

**Department:** Psychology

**Advisor:** Dr. Christine Smith

**Abstract:** Literature has found that attractiveness in potential partners is important for both women and men. This study sought to examine which features women and men desire in a potential partner. Participants were asked what they find physically attractive and sexy and listed between five and ten items. For both sexes, the physical characteristics most frequently mentioned that they look for in another person were mouth/ teeth/ smile/ lips, eyes, and hair. By groups, men were significantly more likely to mention thin/ slim/ average build, legs/ feet, breasts/ chest, and butt, while women were more likely to mention cheeks/ dimples/ nose, and hands. There were a number of similarities in what women and men desire in potential partners. Further research might examine how race, age, relationship statuses, and sexual orientation may affect desirability of attractiveness traits.

## 083

**Title:** Counseling Center Access Database

**Presenter(s):** Neal Gamradt

**Department:** Instructional Technology

**Advisor:** Dr. Rhonda Ficek

**Abstract:** The first will be a custom Access Database designed for the counseling center. This database will allow them to analyze Withdrawal information to find out why students leave Moorhead State University.

The second will be on the Student Technology Team database. This Access database uses ASP web pages to add, edit, delete, and view data. There are many on campus uses for such technology. For instance, the registration process for the Student Academic Conference could be greatly automated using this technology.

## 084

**Title:** Interactive System for Phonological Analysis

**Presenter(s):** Jenni Hagen

**Department:** Speech Language Hearing Sciences

**Advisor:** LaRae McGillivray

**Abstract:** The Interactive System for Phonological Analysis (ISPA) is a computer analysis used for identifying and describing phonological processes in children. Analysis of phonological processes in conversational speech samples is a very time consuming task if done by hand. ISPA allows a clinician to analyze an entire conversational sample in a short period of time. In addition, ISPA provides an in-depth analysis of the child's phonetic inventory, sound substitutions, and phonological processes. This presentation outlines a case study to illustrate the usefulness of ISPA as a tool for measuring real progress in a child's speech system.

## 085

**Title:** Violence Against Women in Post-Apartheid South Africa.

**Presenter(s):** Nicole Bergeron

**Department:** Political Science

**Advisor:** Dr. Andrew Conteh

**Abstract:** Throughout South Africa's painful past, discrimination did not exist solely between races, but also between sexes. South African women were subjected to male dominance for the entirety of their lives.

On 8 May 1996, South Africa adopted a new constitution which promised equality for all human beings including protection against violence. In addition, South Africa established an Office on the Status of Women (OSW). The OSW's duties include identification and reformation of gender discriminatory laws in an attempt to insure equality for women. Furthermore, South Africa has also ratified the Convention on the Elimination of All Forms of Discrimination Against Women.

Despite their legal recognition, women continue to strive for a fair and just world. Although significant achievements have occurred in granting gender equality in South Africa, violence remains the greatest restriction to a woman's pursuit for justice. The frequency of violence and rape against women has actually increased since the country's political transformation in 1994.

This presentation will touch on the two most prevalent forms of violence affecting women in South Africa which are domestic violence and rape.

## 086

**Title:** Analyze This: Fantasy 2000

**Presenter(s):** Scotty Moore

**Department:** Speech Communication

**Advisor:** Dr. Timothy Borchers

**Abstract:** I will look at four journal articles written by Louie Giglio. There are many types of rhetorical criticism, and for this piece I have chosen to use a cluster analysis. What a cluster analysis means is I read through each journal looking for key words and around those key words are also words relating to the key words. My goal is to better understand Louie's message by rhetorically interpreting it, and then present my criticism to my audience.

## 087

**Title:** World Health Organization and Nutrition

**Presenter(s):** Steven Anderson

**Department:** Political Science

**Advisor:** Dr. Barbara Headrick

**Abstract:** I would like to look at how the World Health Organization (WHO) helps undeveloped countries with nutrition and other health issues. These issues are of great concern to many because they affect how people will interact with government and how they feel about their government. I want to look at how the efforts of the WHO, what do they do, do they work with a country's government do they allow the government of the country to express its concerns or do they just step in. What issues most concern the WHO and how do they accomplish their goals? Are they successful in accomplishing these goals? The WHO is a branch of the United Nations and is used by every region of the world. I will look at where they have been successful and where they haven't and find out if solutions could have been handled differently.

## 088

**Title:** Acquaintance Rape

**Presenter(s):** Stephanie Maras

**Department:** Counseling and Student Affairs

**Advisor:** Dr. William Packwood

**Abstract:** Acquaintance rape occurs to women and men of all ages. It has become a topic that has become all too familiar for many college students. My presentation will focus on defining acquaintance rape, shattering the myths, and providing acquaintance rape statistics from across the United States. Recognizing the signs and symptoms of those who have been raped will be included in the presentation. Successful treatment methods and college prevention programs will also be highlighted.

## 089

**Title:** Hypermnnesia and Recall in Memory

**Presenter(s):** Jean Grismer

**Department:** Psychology

**Advisor:** Dr. Ernest Halford

**Abstract:** Hypermnnesia nearly always exists for recall using pictures. Hypermnnesia for word lists has shown different results. It was proposed that there would be a hypermnnesic effect for cued recall using people's names. Results did not show the hypermnnesia effect either for the free recall or cued recall word lists.

## 090

**Title:** Bison (*Bison bison*) Habitat Use and Behavior During the Breeding Season in Theodore Roosevelt National Park in the North Dakota Badlands

**Presenter(s):** Deanna Thompson, Heather Taylor, Breann Stoltz, Daniel McEwen, and Adam Walz

**Department:** Biology

**Advisor:** Dr. Donna Stockrahm

**Abstract:** Herd composition, calf production, habitat use, and reproductive behavior of bison (*Bison bison*) were studied in the South Unit of Theodore Roosevelt National Park during July and August of 1999 to address concerns that bison bulls might be too numerous in the herd for its long-term health. Bull behaviors towards lactating cows versus nonlactating cows were compared. If bulls greatly outnumbered cows, lactating cows might be tended more frequently even though such cows are less likely to ovulate that year than nonlactating cows. Highest bison counts for any single day were approximately 350. Although the herd was often split into

various-sized bands and counts varied daily, averages of our best counts indicated the herd composition was roughly: 18% adult bulls, 33% adult cows, 5% subadult males, 4% subadult females, 4% subadult unknowns, 21% calves, and 15% unknowns. Calf production was fairly high at approximately 0.6 calves/cow. Bison used black-tailed prairie dog (*Cynomys ludovicianus*) towns extensively for their rut activities. Bulls tended mainly nonlactating cows until later in the rut, when the percentage of lactating cows being tended increased slightly. No calves were seen with cows being mounted. However, towards the end of the rut, several lactating cows were seen with fresh wounds on their backs, presumably from being mounted. Although bull-to-bull aggression levels were sometimes fairly high, good calf production and normal breeding behaviors suggested that the current number of bulls is not detrimental to the herd. However, we suggest further monitoring as subadult males reach reproductive age.

## 091

**Title:** Movements and Space Utilization by Gunnison's Prairie Dogs (*Cynomys gunnisoni*) Living Multiple Years in a Colorado Colony

**Presenter(s):** Justin Klitzke, John Schoon, Daniel McEwen

**Department:** Biology

**Advisor:** Dr. Donna Stockrahm

**Abstract:** Movements and space utilization were studied in Gunnison's prairie dogs (*Cynomys gunnisoni*) living for multiple years on our study site in Archuleta County, Colorado. A 3-ha portion of a larger prairie dog colony was trapped during the summers of 1991 through 1997 using Tomahawk live-traps. Each captured prairie dog was weighed, aged, sexed, ear-tagged, and marked with a unique design using Nyanzol D dye. Reproductive condition and capture location were also recorded before the animal was released. The 3-ha area was divided into 24 blocks (each 25 m by 50 m) using a compass, string, and stakes; all burrows were then mapped. During 1996 and 1997, burrow positions were verified using a Global Positioning System (Trimble Pro-XL). Approximately 350 prairie dogs were ear-tagged between 1991-1997. Of these, only 30 females and 10 males were captured for more than 1 year. Capture locations indicated that these 40 animals concentrated most of their activities within 8 of the 24 blocks. Of the 10 males, 7 were captured both as pups and as adults. As adults, 3 were caught at least once in the block(s) in which they had been caught as pups, while the other 4 moved to more distant locations. It was more common for females than males to remain in or near their "natal block(s)" over several years. By looking at common burrow use, we could sometimes reconstruct possible family units. When pups and an adult female were captured in common burrow areas, we judged it likely that they were a family unit. If this was correct, it appeared that some of the longer-lived animals also had a longer-lived mother and/or sisters. We will further investigate possible reasons why longer-lived animals seemed to be concentrated into certain areas of the study area, including access to optimal burrow sites and social stability.

## 092

**Title:** Management and Treatment Strategies of Patients with Alzheimer's Disease

**Presenter(s):** Sara Lemay and Amanda Sorenson

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** The neurological pattern and etiologies of Alzheimer's Disease and the management and treatment strategies of patients diagnosed with Alzheimer's Disease, particularly on cognitive decline, will be addressed. Verbal memory and initiations will be measured in an adult patient with Alzheimer's Disease using the Mini-Mental State Examination (M-MSE). Intervention with a memory wallet using photographs of the subjects family, pictures of familiar places, and other photographs that may evoke memories about the patients life will be implemented in order to observe if there is an increase in verbal initiations and conversation maintenance.

## 093

**Title:** Outreach Activities of Chemistry and Physical Science Teaching Students

**Presenter(s):** Melissa Torpen and Chris Petersen

**Department:** Chemistry

**Advisor:** Dr. Shawn Dunkirk

**Abstract:** Outreach activities into area elementary, middle and high schools are a great way for science education and chemistry majors to gain classroom experience and foster K-12 connections with area teachers and students. These experiences are not only good for the university students involved, but also for the K-12 students, as it sparks their interest in science and adds excitement to their school life. Chemistry and physical science teaching students and members of the chemistry faculty work together on a variety of outreach activities. Some of these activities include Science Olympiad events and Expanding Your Horizons workshops, in addition to giving presentations or leading hands-on activities at area schools. For the Student Academic Conference, we will review some of the outreach projects and also lead the audience in one of our activities to give participants a better understanding of what outreach is like.

## 094

**Title:** Using BioTools Lab Activities to Meet National Science Standards

**Presenter(s):** Todd Frost and Miranda Norby

**Department:** Biology

**Advisor:** Dr. Mary Shimabukuro

**Abstract:** This workshop will outline lab activities contained in BioTools: High School Biology Activity Manual by Thomas A. Lonergan from the University of New Orleans. This manual is designed to correlate with the National Science Standards. We will ask the audience to participate in one of the exercises contained in the book. We will demonstrate an exercise that has to do with the evolution of camouflage in moths in post-industrial Europe. A video will also be shown to go along with this activity. The time will be approximately 40 minutes.

## 095

**Title:** Pornography on the Internet: Is Your Child in Danger?

**Presenter(s):** Corinne Kaminski, Christi Osborn, Leslie Doe, Sandy Johnson, Jessica Walker, and Becky Dulski-Men

**Department:** Social Work

**Advisor:** Dr. Shawn Ginther

**Abstract:** This study examines easy accessibility to Internet pornography where children are often targeted. The frequency of Internet pornography use among children and the parental awareness of it are measured through questionnaire in an F-M area grade school. Children are questioned regarding gender, access to computers, supervision, and unintentional access to pornographic sites. Parents are questioned regarding computer ownership, types of use (entertainment, educational, etc.), amount of supervision provided, unintentional access to pornographic sites, and the use of computer blocks for offensive material. This study seeks to increase parental awareness, and further studies could influence enactment of regulation controlling these sites.

## 096

**Title:** Neurological Involvement and Social Implications of Mode of Communication for Individual with Cerebral Palsy and Mild Mental Retardation

**Presenter(s):** Jill Baumgartner and Jessica Villiard

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** Due to neurological differences, persons with cerebral palsy can vary greatly in their degree of motoric involvement. Because of this, two people with approximately the same cognitive ability may require totally different modes of communication. We will begin by looking at the neurological aspects of cerebral palsy and mild mental retardation and how they influence a person's ability to communicate. Through informal testing we will examine the social implications of two distinct modes of communication; how two people with virtually the same intellectual ability are perceived by others based on the mode of communication that they use.

## 097

**Title:** Policy Analysis on Clientele Satisfaction

**Presenter(s):** Donna Bostick

**Department:** Public & Human Service Administration

**Advisor:** Dr. James Danielson

**Abstract:** This study focuses on measures of clientele satisfaction with a social service agency. What steps can be taken to increase knowledge of services and try improve the quality of services to clientele who use the programs? What are the structural and budgetary implications of various programs?

## 098

**Title:** Policy Analysis on Social Workers in School Systems

**Presenter(s):** Amelia Riccio

**Department:** Public & Human Service Administration

**Advisor:** Dr. James Danielson

**Abstract:** This study focuses on the consequences of placing social workers in the school system to deal with problem behaviors and troubled youth. Is there evidence that this program has positive consequences? What are the policy implications for budgets and administrative structure?

## 099

**Title:** Policy Analysis on Volunteer Training

**Presenter(s):** Angela Fowler

**Department:** Public & Human Service Administration

**Advisor:** Dr. James Danielson

**Abstract:** This study addresses the challenges involved in training volunteers for the skills needed to provide the services of the Make-A-Wish Foundation. What policies can be developed to improve orientation? What updating is necessary in the volunteer handbook that will improve clientele service?

## 100

**Title:** Cochlear Implants

**Presenter(s):** Jennifer Harren and Krista Severson

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** The purpose of this poster is to present some recent information on Cochlear Implants. Cochlear Implants are electronic devices that help deaf people hear. We will discuss how Cochlear Implants affect speech and speech perception and their social benefits or limitations. In order to objectify the effect of a Cochlear Implant on speech, a speech discrimination test will be conducted with an adult female with a Cochlear Implant. She will be tested with the Implant on and then off. The results of this testing will be discussed in our poster.

## 101

**Title:** Developmental Apraxia of Speech.....Phonological Awareness, Literacy, and Treatment

**Presenter(s):** Jennifer Freier and Darcy VanDusen

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** Our study on Developmental Apraxia of Speech (DAS) addresses the areas of phonological awareness (one's ability to understand sound/symbol correspondence in words), literacy, and treatment. DAS is a neurological disorder that influences a child's planning and production of speech. A key feature of DAS is a severe articulation deficit characterized by a restricted sound repertoire. A child's limited sound repertoire results in an inability to form a mental representation of sounds resulting in a delay of phonological awareness. Therefore, some children with DAS who lack phonological awareness have difficulty acquiring sound/symbol correspondence in words. Research suggests a link exists between deficits in phonological awareness and the development of literacy skills. Our study involves testing one child with DAS to determine if our results are consistent with research. The child's phonological awareness will be tested using the Phonological Awareness Test, which will measure the child's deficits in phonological processing and sound-letter correspondence. The child's literacy skills will be tested using the Woodcock Reading Mastery Test. This test will assess the child's skills necessary for beginning reading and basic reading skills. Studies have shown that children with DAS whose treatment is focused on phonological awareness advance more rapidly in reading than children who do not receive treatment focused on phonological awareness. Therefore, our study will also explore treatments that address improvement of the child's phonological awareness.

We will present our research project as poster-board presentation.

## 102

**Title:** Dysarthria in Parkinson's Disease and Its Voice Treatment

**Presenter(s):** Sally Wurpts and Kelly Gillin

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** This study will discuss three areas related to Parkinson's Disease: (1) Neurological aspects of the disease (2) Impact of Parkinson's Disease on the speech mechanism (3) Voice Therapy for Parkinson's Disease. The neurological aspect of this study will explore the origin and etiology of Parkinson's Disease. It will also discuss speech and non-speech related signs and symptoms that occur because of the disease. The second portion of this study will explore how Parkinson's Disease impacts the speech mechanism. Parkinson's Disease can affect the speech mechanism in the form of hypokinetic dysarthria. This type of dysarthria will be defined by examining the neurological causes and its perceptual characteristics. This portion of the study will include assessing dysarthria in a subject with Parkinson's Disease. The final portion of the study will include possible voice therapy for treatment of speech related symptoms.

## 103

**Title:** Hands-on Work with Dienes' Blocks

**Presenter(s):** David Wolff, David Peterson, Patricia Pieri and Darcy Vogelbacher

**Department:** Mathematics

**Advisor:** Dr. Geok Lian Ng

**Abstract:** Research supports the use of manipulatives in making the connection from the concrete to the symbolic in effective mathematics education. This workshop will provide opportunities to explore the use of Dienes' Blocks in understanding place value and the operations of addition, subtraction, multiplication and division. A panel of Elementary Education majors will model the activities and workshop attendees will have the chance to get their "hands on" the various number-based wood.

## 104

**Title:** Austic Spectrum Disorder

**Presenter(s):** Brandi Claus and Kathryn Groothuis

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** We, Brandi Claus and Kathryn Groothuis, will present (using a poster) how Autistic Spectrum Disorder affects both verbal and non-verbal communication in children. First, a short definition and etiology of Autistic Spectrum Disorder will be given. Also, the components of verbal and non-verbal communication will be described and defined. In order to understand communication in children with Autistic Spectrum Disorder, we will administer two sub-tests of the formal test, "Autism Screening Instrument for Educational Planning" to at least one child with Autistic Spectrum Disorder. The two sub-tests used to examine both the verbal and non-verbal communication of the child(ren) will be the "Assess Communication" and the "Assess Interaction" portions of the test. Finally, the differences in communication between children with Autistic Spectrum Disorder and the norm will be presented.

## 105

**Title:** Perception of the Tritone Paradox by Listeners in the Midwest

**Presenter(s):** Meredith Haugen

**Department:** Psychology

**Advisor:** Dr. Magdalene Chalikia

**Abstract:** Participants from the Midwest were presented with pairs of octave-complex tones related by a tritone interval, and were asked to determine if they heard the pair as ascending or descending. Data will be compared to responses from Texas to test the hypothesis that the regional dialect may influence the perception of the tone pairs.

## 106

**Title:** Perception of the Tritone Paradox by Listeners in Greece.

**Presenter(s):** Angie Norberg

**Department:** Psychology

**Advisor:** Dr. Magdalene Chalikia

**Abstract:** When listeners are presented with pairs of octave-complex tones related by a tritone interval (a half-octave), they hear the pattern as ascending or descending, according to an individual pitch class template. This template may be influenced by language. Data from Greek listeners will be compared with data from Texas.

## 107

**Title:** The Communicative Effects of Asperger's Syndrome

**Presenter(s):** Krysta Jacobson and Jocelyn Sheldon

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** The purpose of this poster is to investigate the communication aspects of Asperger's Syndrome. Asperger's Syndrome is thought to be a form of autism, characterized by pedantic and stereotyped speech, clumsiness, obsessional interests and deficient social behavior. This syndrome also affects the individual's ability to communicate. Until 1994, this disorder was virtually unknown in the United States. Currently, there is a dramatic increase in the number of individuals being diagnosed with Asperger's Syndrome. This project proposes to observe and assess a subject using the School Assessment Rating Scale for Asperger's Syndrome. We expect to find this individual to be delayed in the areas of social and emotional abilities, cognitive skills, and movement skills, when compared to peers in the same age group. We will be presenting our results upon completion of the study.

## 108

**Title:** Differential Activation of Mitogen Activated Protein Kinases

**Presenter(s):** Becky Kuehn and Tracie Teig

**Department:** Chemistry

**Advisor:** Dr. Joseph Provost

**Abstract:** Mitogen activated protein kinase (MAPK) is an important protein responsible for the actions of many hormones. There are three closely related MAPK types: extracellular signal regulated kinase (ERK1/2), c-Jun N-terminal kinase (JNK), and p38. MAPK itself is activated by other protein kinases under the control of growth factor receptors and G protein coupled receptors. The classical means of MAPK activation involve growth factors. The ability of G proteins is fairly new and of great interest. MAPK and several additional factors play a role in controlling intracellular pH through the sodium hydrogen ion exchanger (NHE). Deviations in NHE regulation has been reported to be linked to several diseases, such as hypertension, ischemia, and neoplastic transformation (cancer). The pathways in which two hormones, lysophosphatidic acid (LPA) and phenylephrine (PE) activate MAPK are investigated. These pathways may ultimately lead to the activation of NHE. The purpose of our project is to determine the differential activation of MAPK, which is a critical intermediate in activating NHE. These studies have been performed in Chinese Hamster Lung (CCL39) cells and Cardiac Neomyocytes using the hormones LPA and PE.

We have shown that activation of the three MAPK isoforms are differentially increased by varying the concentrations of the agonists, LPA and PE. The optimal concentration was determined for each isoform. The LPA activity of ERK1/2 was at least 3-fold that of PE in the CCL39 cells. The activity of other isoforms will also be determined. The stimulation of the same MAPK proteins in heart cells is determined at maximal hormonal concentration. This will illustrate the divergence of signaling pathways in various tissue types.

Determining which agonist provokes the most MAPK activation and which pathway stimulates which MAPK isoform and NHE is a pertinent step in understanding the regulation of cell growth. Understanding these concepts will be essential information in determining the approaches to overcome cancer and many other metabolic disorders.

## 109

**Title:** Serum Dependence of Intracellular pH in Cultured Neonatal Cardiac Myocytes

**Presenter(s):** Hillary Thronson, Benjamin Naasz, and William Wegh

**Department:** Biology

**Advisor:** Dr. Mark Wallert

**Abstract:** The Na<sup>+</sup>-H<sup>+</sup> exchanger is a Na<sup>+</sup>-dependent, amiloride-sensitive, proton extrusion mechanism found in virtually all eukaryotic cells. The NHE1 isoform of the Na<sup>+</sup>-H<sup>+</sup> exchanger is the only isoform expressed in cultured neonatal heart cells. In these cells, the exchanger functions to regulate intracellular pH (pHi) and cellular volume. As part of its role in pHi regulation the exchanger is involved in establishing resting pH levels in these cells. Since the exchanger can be activated by a variety of hormones and growth factors, cells that have been grown in serum containing media have different resting pHi values than those that have been deprived of serum for 12 to 16 hours. The reason for this difference can be demonstrated in changes in the pHi-dependence of transport for NHE1 in the presence and absence of serum. We have also demonstrated that some of the changes in transport activity can be mimicked through exchanger stimulation by the  $\alpha$  1-adrenergic agonist phenylephrine (PE) and the purinergic agonist adenosine triphosphate (ATP). This work will help us to establish whether PE and ATP activate NHE1 through similar pathways. We hypothesize that both ATP and PE activate NHE1 through a G-protein linked mechanism that involves the activation of MAP Kinase and P90rsk.



## 110

**Title:** African-American Images in Television

**Presenter(s):** Kent Dahlman, Stephanie Rotz, and Carissa Skarnagel

**Department:** Humanities

**Advisor:** Phyllis May-Machunda

**Abstract:** In this presentation we will examine historical and current portrayals of African American in the medium of television. We will look at some of the historical influences shaping the images of African Americans on television entertainment and news programs. After exploring the racial gap in Black and White viewing patterns, we will examine some of the proposals to improve the portrayal of African Americans in the television industry.

## 111

**Title:** Tangrams

**Presenter(s):** Karla Winter and Georgene Getz

**Department:** Education/Math

**Advisor:** Dr. Geok Lian Ng

**Abstract:** We are going to be presenting the use of tangrams for mathematical purposes. Tangrams can be used to teach geometry, spatial sense, area, fractions, and other mathematical concepts. Our presentation will consist of an introduction to the history of tangrams, lectures, individual, and group activities from the audience. We will also look at the concepts of area and fractions and how they can be found through the use of tangrams. The use of tangram pieces will be used along with the overhead projector to inform the audience how important tangrams are for elementary students.

## 112

**Title:** Tantalizing Tangrams

**Presenter(s):** David Kemper, Jenny Sevigny, and Janna Herder

**Department:** Education/Math

**Advisor:** Dr. Geok Lian Ng

**Abstract:** A list of the activities we plan on teaching is below. We wish to work with tangrams. These are objects and shapes that you will find when working with geometry.

1. Introduce the tangrams. Tell how tangrams developed. Show the shapes of the tangrams and what makes up a complete set of tangrams.
2. Have people getting into groups and make different shapes with their set of tangrams using a different amount each time. When they are finished we will have them trace them on an overhead sheet and show the class the shape they made with their tangrams.
3. As the class traces their shapes made from #2 they are going to put them on notebook paper too and we will collect them and re-distribute them to allow other participants to figure out what tangrams they used to make the shape.
4. Discuss the idea of area. After understanding area have each group decide which tangram has more area.
5. Have each group create their own type of "picture" or shape using all the combined sets of tangrams. Have each group trace their picture onto a poster board with marker.

Discussion and conclusions drawn from using tangrams. Have the participants discuss why they think we have tangrams and why they benefit us by using them.

## 113

**Title:** Russian Peasant Algorithm of Multiplication

**Presenter(s):** Kimberley Dahl and Jennifer Christiansen

**Department:** Education/Math

**Advisor:** Dr. Geok Lian Ng

**Abstract:** PURPOSE: To introduce and explain the Russian peasant algorithm of multiplication, and the lattice method for multiplication. GOAL: The class (audience) members will demonstrate their comprehension of the algorithms by completing problems. EXPLANATION: We are planning to do a presentation. We will have posters of the algorithms up so students can see examples of the problems. We will then discuss the history of the algorithms. Then, step by step we will show how the algorithms are done. We will present examples of the algorithms, and ask the students to help us with the process. This may include responses from them, or having them participate by coming to the board and doing a step in the problem.

## 114

**Title:** Involvement of a Protein Component in Minnow Alarm Cue

**Presenter(s):** Nichole Korpi and Larry Louisiana

**Department:** Chemistry/Biology

**Advisor:** Dr. Joseph Provost and Dr. Brian Wisenden

**Abstract:** Fishes in the superorder Ostariophysi represent about 64% of all freshwater fish species (minnows, catfish, suckers, tetras, etc). One trait common to members of this group is specialized skin cells that contain an alarm pheromone. A pheromone is a chemical signal. When a predator attacks and ruptures the skin cells, the pheromone is released, warns nearby minnows of the predator and induces an antipredator behavior. The chemical nature of this pheromone is not clearly understood. Early reports suggest hypoxanthine-3(N)-oxide (H3NO) is the signaling molecule. However, independent tests using pure H3NO do not elicit a behavioral or physiological response. In this study, the presence of a protein component of the alarm substance in fathead minnows *Pimephales promelas* was tested. An alarm pheromone solution was prepared from the skin of fresh minnows. The solution was then heated and denatured protein removed by centrifugation. The resulting supernatant pheromone solution was used to test individual fathead minnows for antipredator behavior. If protein is a component of the pheromone response, then denaturing the protein with heat should render the solution ineffective. The decrease in total protein caused by heating and the resulting behavioral responses to the test solutions was quantified. Additionally, no significant change in pH was determined after heat treatment. Finally, a related compound, hypoxanthine, was used to model the effect of heat on H3NO. These studies should further elucidate the chemical nature of an important biological signal.

## 115

**Title:** G-protein Mediated Activation of the Sodium/Hydrogen Ion Exchanger in CCL-39 Cells

**Presenter(s):** Matt Baumgartner, Summer Tegtmeier, and Isaac Manke

**Department:** Chemistry/Biology Biotechnology

**Advisor:** Dr. Joseph Provost and Dr. Mark Wallert

**Abstract:** The sodium/hydrogen ion exchanger (NHE), the NHE-1 isoform, is the only isoform expressed in Chinese hamster lung fibroblasts (CCL-39). The exchanger functions in the maintenance of intracellular pH (pHi) and cell volume regulation. The G-protein coupled  $\alpha$ 1-adrenergic receptor leads to the activation of NHE-1. It is believed that this activation proceeds through a mitogen-activated protein kinase (MAPK) mediated pathway. This pathway could be either Ras dependent or independent. The present study elucidates the relationship between G-proteins, MAPK, and NHE1 in CCL-39 cells. Phenylephrine (PE),  $\alpha$ 1-adrenergic specific agonist, has been shown to stimulate both NHE1 and MAPK in this cell line. The optimum PE dose and time course of activation of MAPK has been measured. The greatest activation of MAPK was observed at ten minutes and declined with time. To determine the Ras dependence of activation, a dominant negative Ras construct was transfected into the CCL-39 cells. The MAPK and NHE activity was then monitored using immunoblot analysis. The transfection process has been optimized using FuGENE-6 as a transfection agent. The transfection efficiency varied from 47% to 19%. Use of other inhibitors and activators in the proposed pathway will also be evaluated in the determination of a Ras dependent or independent pathway.

## 116

**Title:** Rett Syndrome

**Presenter(s):** Sarah Nelson and Emily Rhode

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** Rett Syndrome (RS) is a progressive neurological disorder found exclusively in females. Individuals with Rett Syndrome exhibit reduced muscle tone, autistic-like behavior, loss of purposeful use of hands, diminished ability to express feelings, avoidance of eye contact, stunted head and brain growth, gait abnormalities, and seizures. The child with RS usually shows an early period of normal or near normal development. Symptoms typically appear between 6 and 18 months of age. Our project will focus on three subjects associated with Rett Syndrome and explain the relationships between the subjects. First, we will discuss the genetic origin of Rett Syndrome and the developmental effects of the disorder. Second, we will look at the impact of the disease on communication. Finally, we will review a case study involving the use of augmentative and alternative communication (AAC) by a child with Rett Syndrome. We will present our research project as a poster-board session.

## 117

**Title:** Powerball: The Lottery Game Who Shagged Me

**Presenter(s):** Kelly Finke, Casey Morris, and Jay Noland

**Department:** Mathematics

**Advisor:** Dr. Timothy Peil

**Abstract:** We will analyze the fairness of the lottery game, playing strategies, appropriate prize amounts for fairness, and comparisons to other lotteries (fair and unfair). The presentation will follow modeling methods we have learned in our class.

## 118

**Title:** Analysis of the "Size Matters" Campaign

**Presenter(s):** Patrick Carpenter and Rachel Deibert

**Department:** Speech Communication

**Advisor:** Dr. Timothy Borchers

**Abstract:** The recent advertising and recruitment campaign using the slogan "Size Matters" for Moorhead State University is analyzed from the perspective of rhetorical criticism. Using the study of preferred and oppositional meanings, we find that the "Size Matters" campaign is effective but for reasons that may or may not be ethical. Implicit in the campaign are connotations which are not conducive to a learning experience, causing incongruity with the learning institution which it represents.

## 119

**Title:** Implementing Eyes on Wildlife in a Standards-based Curriculum

**Presenter(s):** Jeff Erickson, Sarah Mills, Tanya Haugen, and Brandy Spitzer

**Department:** Regional Science Center and Teacher Education

**Advisor:** Dr. George Davis

**Abstract:** Eyes on Wildlife is a project designed to provide middle and secondary students with authentic science research opportunities. The Eyes on Wildlife project also provides teachers with the opportunity to teach using field-based inquiry projects.

The conference presentation will involve the sharing of four Moorhead State University Life Science (Teaching) Majors experiences working with the Eyes on Wildlife project. The students worked with middle school students from the Prairie Wind Middle School in Perham, Minnesota. Highlights of the Eyes on Wildlife project includes a field trip to Camp Ripley for observation and interaction with the Department of Natural Resources officials as they captured, tagged and collared whitetail deer. After the tagging and collaring of the deer, the group observed the daily activity of their deer using Global Positioning Satellite Systems (GPS). Through the information the GPS presented, students were able to form questions and calculate answers about the movement of their deer. After the information involving the deer was collected, the Prairie Wind students prepared a research report on their findings.

The Eyes on Wildlife project benefits students greatly by providing an opportunity for students to participate in hands-on wildlife research opportunities. The project also allows students to increase technological and comprehensive skills. Students will become more informed about ecological and environmental issues. Finally, the project will build confidence in students, and allow the students to develop their own personal relationship with the outdoors.

This presentation offers the opportunity to look at how a teacher would go about starting the Eyes on Wildlife project. Project information including contact people, informational resources, and other important aspects of the project will be shared.

## 120

**Title:** The Effects of a Left Hemisphere Brain Tumor on Motor, Behavior, and Speech-Language Development

**Presenter(s):** Heather Love, Carmen Lemar, and Melanie Friedt

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** The purpose of this project is to study the effects of a left hemisphere brain tumor on the motor, behavior, and speech-language development of a two-year old child. The study will define the functions of the left temporal lobe and the diagnosis of Ependymoma. The study will perform informal and formal testing of a seven-year old male diagnosed with an Ependymoma in the left temporal at two years of age. Through subject testing, informal parent and family interviews, medical and school records, the study will compare the development areas affected in motor, behavioral characteristics and speech-language development linked with left temporal lobe function.

## 121

**Title:** BioWeb Search

**Presenter(s):** Melissa Millard and Spencer Oland

**Department:** Biology

**Advisor:** Dr. Mary Shimabukuro

**Abstract:** This workshop will introduce participants to a BioWeb Search, a new biology curriculum designed to meet the objectives of the National Education Standards. These internet biology lessons make use of internet resources for instruction in the Life Sciences. Activities are designed around selected web sites and stress applications of biology to everyday life. Students enhance their computer skills while learning biology. Topics covered include: physiology and morphology, cell biology and biochemistry, genetics, evolution, environmental biology and technology and techniques. Participants will be introduced to two of the activities.

Loneragan, T.A., Wohler, L., & Gonzalea. (1998) *BioWeb Search*. New Orleans: Health-Science, Inc.

## 122

**Title:** A Lesson on Heart Disease Risk Assessment Based on Genetics and Lifestyles

**Presenter(s):** Cory Fleck, Lon Hoffmann, and Chip Lyslo

**Department:** Biology

**Advisor:** Dr. Mary Shimabukuro

**Abstract:** This workshop involves participation in a heart disease risk assessment lesson developed from criteria set forth in the Health in the Year 2100: What's Heredity got to do with it? The curriculum manual was designed to reflect health concerns of the Native American population. The manual provides a number of genetics lesson and activity plans for high school biology students including genetics and chronic disease relationships, what are genes and chromosomes, birth defects, diabetes, heart disease, and lifestyle choices. Curriculum goals are to involving students in discussion and understanding of relationships between genetics, lifestyle choices, and health to risk of developing these diseases.

Workshop participants will develop a heart disease risk score by randomly drawing from categories of genetic traits, lifestyle, and health factors. Genetic traits include gender and family history; lifestyle factors include eating habits, exercise, and smoking. Health factors include a randomly drawn obesity factor and the participant's blood pressure. Heart disease risk scores are categorized into one of five relative risk levels for contracting heart disease. Participants will assess their scores and determine life style and health changes needed to reduce the risk of developing heart disease.

## 123

**Title:** Changes in the Demand for Vehicles

**Presenter(s):** Travis Trudeau, Aaron Stuart, and Joel Hart

**Department:** Economics

**Advisor:** Dr. Oscar Flores

**Abstract:** My presentation is on the structure of firms in the auto industry. I will explain that the number of firms has been decreasing over the years. In the future there will be only five major automobile producing firms. The existing firms today will be merging together to form bigger more competitive firms.

## 124

**Title:** Describing Phonological Therapy Alone and in Conjunction with Oral Motor Therapy in an Individual with an Articulation Disorder

**Presenter(s):** Jennifer Paffrath and Shiloh Oates

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** Three Main Areas: 1. Oral motor aspects of speech 2. Differences in phonological therapy alone and with oral motor therapy 3. Description of intelligibility at the end of each semester

## 125

**Title:** Interpreters (Peer Theatre)

**Presenter(s):** David Kemper, Maranda Gerlach, Melanie Hahn, Kari Kuhn, Greg Gerlach, Lynn Peterson, Angie Norberg, and Rebecca Smetana

**Department:** Hendrix Health Interns

**Advisor:** Lynn Peterson

**Abstract:** In this Peer Theatre presentation our two main characters are attracted to each other, but they don't know how to say it. So, they get drunk and need "interpreters" to help them make sense. Soon even the interpreters can't figure out what they are saying. Humor is utilized in this program as it looks at the affect alcohol has on communication and relationships.

## 126

**Title:** Interpreting Robert Frost's "Home Burial"

**Presenter(s):** Hannah Varony, Robin Phillips, Amy Webster, Dave Steinke, and Jessica Holm

**Department:** English

**Advisor:** Dr. Charles Bense

**Abstract:** Robert Frost's poem "Home Burial" presents a dialogue between a husband and a wife who are grieving over the loss of their young child. Presenters of this session will begin with a dramatic reading of the poem. Following the reading, they will present divergent interpretations of the poem's dramatic conflict and invite discussion from the audience.

## 128

**Title:** Credit Card Debt and Usage Among Moorhead State University Students

**Presenter(s):** John Lyon, Heather Johnson, Kylie Kolstad, Jada Vosberg, Mary Pfeifer, Tracy Rystad, Brent Moos, Jessica Schultz, Deb Coalter, and Jay Rehling

**Department:** Social Work

**Advisor:** Dr. Shawn Ginther

**Abstract:** Credit card companies are aggressively marketing high interest credit cards to college students. Consequently, college students are incurring an increased amount of debt as they progress through school. The intent of this research is to measure the magnitude of credit card debt that Moorhead State University students incur. We will survey a convenient sample of Moorhead State University students to find the usage, type, and level of debt they currently have. This research intends to add weight and conviction to the body of research already available. This research also has implications for the students' abilities to repay these loans with an entry-level job position.

## 129

**Title:** MSU International Recruitment Video: A Student Production

**Presenter(s):**

**Advisor:** Tana Ruegamer, Chris Dolajack, Yanick Dahlhouse, Karamel Schroeder, and Gagandeep Sethi

**Department:** International Programs

**Abstract:** The enrollment for International students at Moorhead State University has increased by 12 percent over the last two years. To promote further expansion of the international student body, we feel an international recruitment video is needed to draw a more diverse community to the Moorhead State campus. As students, we recognized this need, and have used our skills to produce a recruitment video for the university's use to recruit and maintain international scholars.

## 130

**Title:** Finding Hidden Treasures

**Presenter(s):** Naomi Rintol, Frank Lahm III, Bill Gillete, and Garrett Williams

**Department:** Anthropology/Archaeology/Earth Sciences

**Advisor:** Dr. Rinita Dalan

**Abstract:** This workshop will be based on our presentation at the Expanding Your Horizons Conference for 7<sup>th</sup>-9<sup>th</sup> grade girls. Our workshop will focus on geophysical exploration methods and how they can be used in archaeology. These girls will learn about magnetometry through a hands-on workshop. The workshop will include experiments to illustrate basic concepts of magnetism and an exercise where they search for hidden treasure using magnetic instruments. The girls will predict where items are to be found and then take part in an "excavation" to check their prediction. Our presentation will include the workshop along with the results of working with the girls at the Expanding Your Horizons Conference.

## 131

**Title:** The Effects of Traumatic Brain Injury on Verbal and Non-verbal Memory Skills

**Presenter(s):** Tiffany Zimmerman and Lori Peschong

**Department:**

**Advisor:**

**Abstract:** The purpose of our study is to test verbal and non-verbal memory following a traumatic brain injury (TBI). The subject of our study is a nineteen-year-old female who suffered a traumatic brain injury as a result of a motor-vehicle accident two years ago. We will use her fraternal twin sister as a comparative measure.

To test non-verbal short-term memory skills, we will use the formalized Rey-Osterrieth Complex Figure Test. The Arizona Battery for Communication Disorders of Dementia test will be used to determine verbal short-term and long-term memory skills. These tests will be administered to the TBI subject and her non-affected twin. The results of these tests will be interpreted through the use of normative data and compared to previous research on TBI.

## 132

**Title:** How Size Effects Managerial Style

**Presenter(s):** Kasia Dereziński, Ross Clevén,

Shannon Doherty, Jamie Reibe, and Allison Lamp,

**Department:** Management

**Advisor:** Grace McLaughlin

**Abstract:** Theories of organizational leadership and organizational structure suggest relationship between organization size and leadership style. Surveys and personal interviews were used to collect data at three organizations of varying size: 3M, Best Buy, and Scheels All Sports in order to examine this relationship. An analysis of the data revealed distinct differences as well as similarities in the leadership styles of upper and middle managers in these companies. These included such differences as changing the focus of the company from the employees, to the customers, or to the competition.

## 133

**Title:** Influential Factors Associated with Speechreading

**Presenter(s):** Heather Haugen and Justin Fevold

**Department:** Speech Language Hearing Sciences

**Advisor:** Dr. Patrick Coppens

**Abstract:** As a requirement for graduation in the bachelor's program for Speech Language Hearing Sciences we completed a research project based on a topic covered at some point during our schooling. The topic we choose to research was speechreading.

Speechreading is the ability to understand spoken language by attentively watching the speaker. While spoken language is most visible on the mouth, many other components of speech are used by speechreaders to decipher a given message. Successful speechreading is based upon many aspects such as gestures, proximity between the speaker and speechreader, facial expressions, situational clues, and a number of others. The focus of our project is to investigate to what degree these components aid in the success of the speechreader. The clinical portion of our project looked at how distance between the speechreader and the speaker affects the ability to speechread. Distances between four and twenty five feet were tested.

Our presentation would consist of an explanation of how these components aid in successful speechreading. We would also explain to what degree distance between the speechreader and speaker effected speechreading success.

### 134

**Title:** Video Game Violence

**Presenter(s):** Jenny Erickson, Amy Hensel, Amber Link, Nichole Schmidt, Tara Mallick, and Kristen Liebel

**Department:** Social Work

**Advisor:** Dr. Shawn Ginther

**Abstract:** The purpose of this study will be to assess the difference in the amount of violent video games played by children attending public school and those attending private school. To address this subject, questionnaires regarding preference for or against home video games containing violence will be distributed to local 6<sup>th</sup> graders attending either public or private school. Violence will be defined as any action that exerts physical force as to injure or abuse. It is hypothesized that the children attending the public schools will have a higher preference for video games containing violence than the children attending private schools.

### 135

**Title:** Title Not Submitted

**Presenter(s):** Jeffery Clauson and Monty Botschner

**Department:** Biology

**Advisor:** Dr. Chris Chastain

**Abstract:** Title Not Submitted

### 136

**Title:** NHE1 Regulation in CCL39 Cells

**Presenter(s):** Lisa Loken, Laura Nustad, and Christy Broadwell

**Department:**

**Advisor:**

**Abstract:** The Na<sup>+</sup>-H<sup>+</sup> exchanger is a Na<sup>+</sup>-dependent, amiloride-sensitive, proton extrusion mechanism found in virtually all eukaryotic cells. Six isoforms of the exchanger have been identified to date, NHE1 – NHE6. The NHE1 isoform of the Na<sup>+</sup>-H<sup>+</sup> exchanger is the only isoform expressed in Chinese hamster lung cells (CCL39). In these cells, the exchanger's primary function is the regulation of intracellular pH (pHi). The exchanger can be activated by an increase in intracellular H<sup>+</sup> or through stimulation by a variety of agonists. We have demonstrated that both lysophosphatidic acid (LPA) and the  $\alpha$ 1-adrenergic agonist phenylephrine (PE) activate the Na<sup>+</sup>-H<sup>+</sup> exchanger at normal steady-state pHi. Experiments have shown that LPA increased steady-state pHi by 0.2-0.3 pH units. Likewise, PE stimulation of NHE1 induced a 0.15-0.2 pH unit increase in steady-state pHi. To determine whether the LPA induced change in steady-state pHi was due to a shift in the pHi-dependence of the exchanger, cells were allowed to recover from an intracellular acid load in the presence and absence of LPA. These data show that LPA activation of NHE1 caused a shift in the pHi-dependence of transport between 0.15 and 0.2 pH units in the alkaline direction. We hypothesize that LPA activation of NHE1 occurs through a G13-dependent mechanism that involves the activation of RhoA, Phospholipase D and MAP Kinase. Additionally, we hypothesize that PE activation of NHE1 occurs through a Gq-mediated pathway that involves the activation of Phospholipase C $\beta$ , Protein Kinase C and MAP Kinase.

### 137

**Title:** Hightower and Burden in Fatalistic Tandem

**Presenter(s):** Vince Sliwoski

**Department:** English

**Advisor:** Dr. Gary Litt

**Abstract:** I will be reading an essay on William Faulkner's novel, *Light in August*. The essay is a thorough investigation of two characters, Gail Hightower and Joanna Burden, and a documentation of the specific role they jointly fulfill throughout the text. Basically, this essay is an article of literary criticism explicating a subtle aspect of Faulkner's work through close reading.

### 138

**Title:** The Use of Parallel Names in *The Sound and the Fury*

**Presenter(s):** Amanda Bettmann

**Department:** English

**Advisor:** Dr. Sandra Pearce

**Abstract:** Upon reading the first section of *The Sound and the Fury*, William Faulkner baffles the reader with the mention of a Quentin who is referred to as a "he" and a "she," a Jason who could be the father or the son, and a Maury who may be the uncle or a child. Although Benjy's jumbled remembrances create much disorder, Faulkner's choice of using the same names for different people adds depth to the novel. The use of double names highlights similarities in characters. The doubled names create confusion at first, but ultimately lead to illumination.

### 139

**Title:** Life as Legend: The Southern Bible

**Presenter(s):** Jennifer Mailloux

**Department:** English

**Advisor:** Dr. Sandra Pearce

**Abstract:** Legends pass on through generations and time, and through the cycle shape beliefs, maintain culture, provide a link to the past, and create a sense of purpose in the lives of those involved. In novels such as 'Light in August,' 'As I Lay Dying,' and 'Absalom, Absalom!,' William Faulkner writes of families whose lives become, to a certain extent, part of the gossip and legendary element of Southern life. 'Absalom, Absalom!' in particular combines various versions on the story of Thomas Sutpen, illustrating its legendary status and placing emphasis on how people cling to the unchanging and unforgiving past, building their lives upon its memory. The title, 'Absalom, Absalom!' draws a parallel between the biblical story of Absalom and that of Thomas Sutpen and his children, effectively strengthening the notion that Southerners have reverence for the past similar to that of Christians in their adherence to the Bible.

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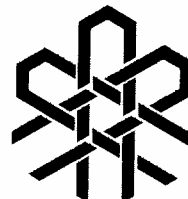
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