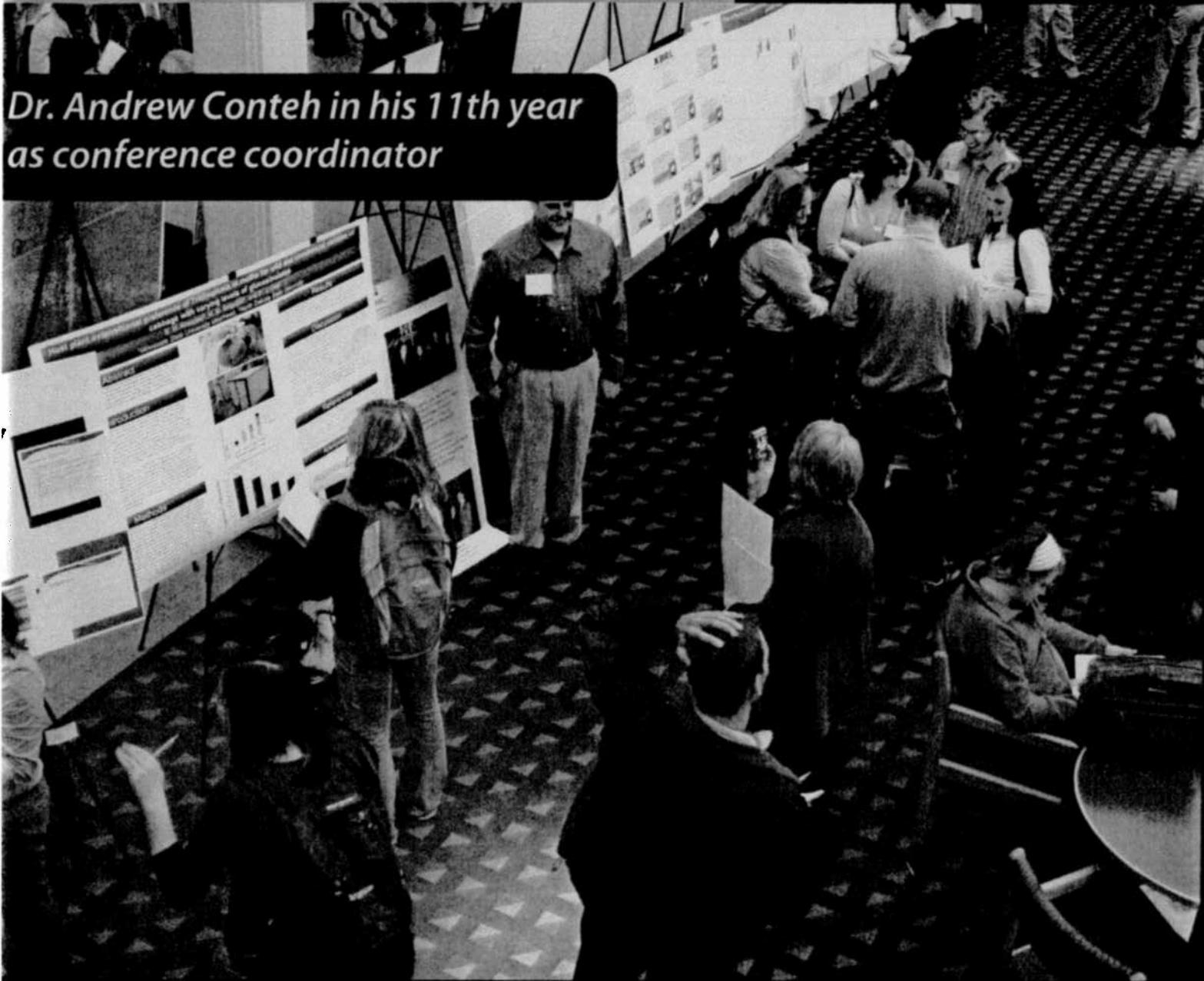


# INSIDERS' GUIDE

to the Student Academic Conference



**11th**  
ANNUAL SAC  
APRIL 21, 2009

2009 Student Academic Conference  
Minnesota State University Moorhead

MINNESOTA STATE UNIVERSITY  
**moorhead** 

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### Dr. Andrew Conteh in his 11th year as conference coordinator

By Taija Noel

Photo by Regene Radniecki

**D**r. Andrew Conteh, a political science professor at MSUM, appreciates the opportunities MSUM's Student Academic Conference offers students. This will be his 11th year as conference coordinator and as a faculty adviser. In last year's conference, Conteh's students presented on topics involving human rights, conflict resolution and international political economy.

He lists many reasons why students should participate. The first is the unique opportunity provided by MSUM's Student Academic Conference. "We are the only university in the area that has that (opportunity) for undergrads," he says. Very few colleges in the entire country have the opportunity available for students prior to graduate school.

Another benefit is the effect being a conference participant makes on a resume. "It is impressive that you did more than just handing in assignments and passing tests," Conteh says. "You went the extra mile." He adds that eventually students will have to make presentations in their future careers, "and this is good preparation!"

His advice for students presenting this year? Conteh says that students often feel intimidated seeing professors and peers in the audience, but that students can't let that get in the way of their performance. "You need to engage the audience," he says. "Show them that you wrote your paper, and they are to listen to what you have to say. Be confident."

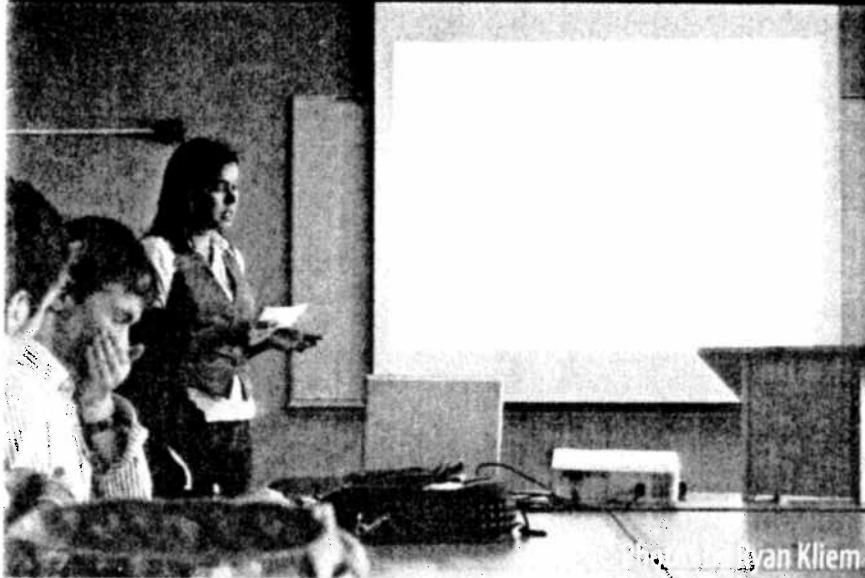
The confidence helps students keep from just reading their papers. "Summarize it in your own words," he says. Conteh also tells students to be open to suggestions, both from the group, and during question and answer time. "Don't be confrontational." Most importantly, "Prepare hard, properly – but relax. Don't feel intimidated by anyone."

Conteh has been an adviser for the Student Academic Conferences for over a decade, and he is excited that spring semester classes are not meeting on April 21 so all students and faculty will be free to attend SAC presentations.

"I'm passionate about it," he says. "It's the best tradition on campus. I believe in it!"

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## 11th Annual Student Academic Conference



Brian Kliem

The SAC is run professionally, like a real conference should be.

## Biology professor feels SAC is 'especially good' for science students

By Brady Vander Velde

For five years Linda Fuselier has been a professor in the biology department at MSUM. Each year she has advised students in the Student Academic Conference.

Her involvement with the SAC has been a great experience. Students presenting at the SAC come out with more confidence. "This is especially good for students in the biology department since it is rare that they get a chance to present their work to an audience," Fuselier said.

Students also learn responsibility by getting involved in the SAC. Even though the actual presentation is short, they have to commit a lot of time for collecting data and doing research.

The SAC has been a good influence on Fuselier. By getting involved with the students and their projects, she has learned how to implement more effective teaching methods. It also gives her a chance to get close to students and understand how they learn.

"The SAC is run professionally, like a real conference should be," Fuselier said. However, if she could change one thing she would group the projects together according to their theme.

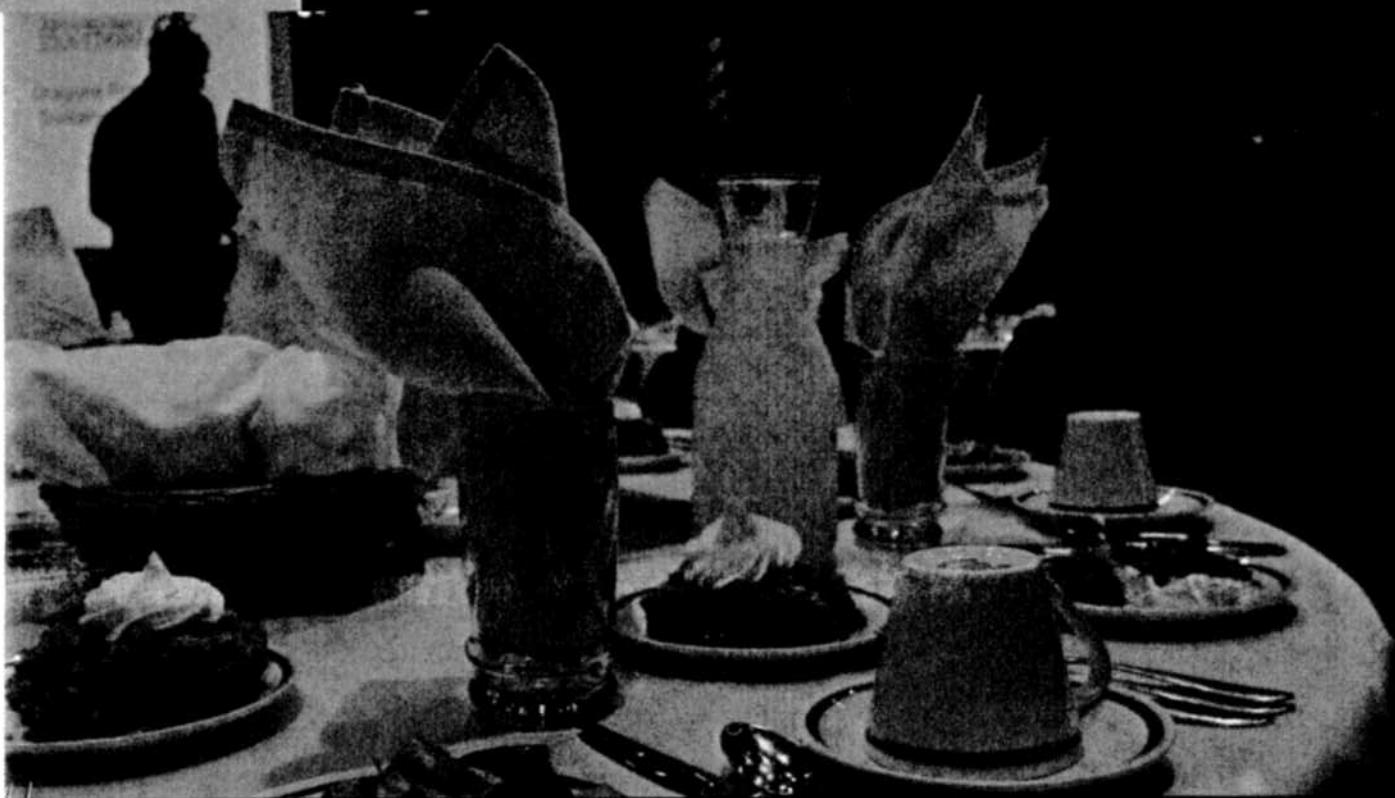
For Fuselier advising the projects is not a difficult task. "The students are in a class and research similar topics," she said. "This past year the entire group went to Costa Rica."

Fuselier is especially excited about the future of the biology department and the SAC at MSUM. Just recently the department received two grants with a value of over \$190,000. "The new equipment bought with the money will give students a great opportunity that they normally would not get until grad school," Fuselier said.

The SAC will benefit from this. It will attract more presenters, and the opportunities for project research and variety will increase.

Fuselier's advice to students is to take advantage of opportunities like the SAC. It is a safe environment for students to learn and also show people what they know. Presenting at the SAC will also look great for a future reference, she said.





## Sodexho works behind the scenes at SAC

By Melissa Muehlbauer

Photo by Regene Radniecki

For the past 10 years MSUM has held the Student Academic Conference in the spring for students to present their research to other students and professors, many times getting extra credit for their class and great experience. But most people don't think about behind the scene aspects of this event including the complimentary luncheon planned for presenters and conference workers.

Sodexho caters the luncheon which is an even in itself. They prepare food for around 300 people. Chris Carpenter and Adam Voigt of catering say the biggest challenge is not serving the lunch, but the preparation, mainly the creation of the menu. They not only have to come up with a menu that will satisfy everyone, but also one that's affordable. "Things aren't cheap anymore," Carpenter said. "Food is really expensive." They also have to take into consideration food allergies, diabetics, and vegetarians.

The menu can be anything that the SAC organizers want. Sodexho offers a corporate menu and can specialize in whatever food is needed. "Even if there's a

recipe they want specifically made, the catering people will try their best to produce it," Carpenter said.

Last year's menu included cajun chicken breast, spring vegetables, rice, bread sticks, and apple crisp.

The preparation for the food is all done the morning before the lunch. The food is ordered that week to allow extra time "due to human error and product availability," Carpenter said. The luncheon lasts about 90 minutes, then Sodexho must quickly tear down everything and clear the ballroom so people can set up presentations.

When this many people need to be served, even Carpenter and Voigt can be seen wearing the catering shirts and helping out wherever they're needed. Approximately 20 to 23 people are employed for this event including about 13 servers and 10 cooks. Because most of the staff consists of students, the catering department has to work around their schedules.

For the 2009 SAC, Carpenter and Voigt won't have many differences due to the positive feedback they got from last. As for the menu, "It is being decided now."

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## 11th Annual Student Academic Conference



### Dr. Ellen Brisch: Conference is rare and wonderful opportunity

Photo by Heidi Shaffer

By Karrah Hallisey

Dr. Ellen Brisch's passion for teaching grew from the influence of her mother who was an educator. Bouncing around from states such as Missouri, Alabama, Nebraska, and Utah, Brisch found herself an outsider in her youth and turned to the outdoors for entertainment.

"I've always loved biology," Brisch, a professor at MSUM, said. Brisch received her Ph.D in Biology from the University of Kansas in 1995. After finishing her post-doctoral work in 1999, she came to Moorhead, which she now considers her hometown. "I've lived here in Moorhead longer than I've lived anywhere all my life," she said with a smile.

Brisch first got involved with the Student Academic Conference in 2000 when she attended as an observer watching student presentations from the department.

Since 2001 Brisch has advised about 25 student presentations. She considers herself a "hands-off" advisor, allowing the students to be self-reliant and motivated to have the most meaningful learning experience.

Brisch said the process for preparing for the conference takes a few years, and much time is dedicated to research and experimentation. She sees the conference as an exciting chance for students to share and present all the work they have done. Students work towards a "meaningful goal" and experience a new kind of hands-on learning.

Brisch feels that this conference is a rare and wonderful opportunity for undergraduate students. It allows the students to practice presenting information in a non-threatening manner to people who are truly interested in their research.

The academic conference is an activity that Brisch feels could not be accomplished without the support of the university community. She said the conference is a wonderful learning experience and "so much fun."

## Burkett explored effects of music on the brain

By Andrew Jason

One of Steve Burkett's favorite moments in music is the "eargasm." He describes the "eargasm" as when he gets chills up his spine by listening to a great piece of music. That led Burkett to do a presentation for the 2008 Student Academic Conference titled, "From Ear to Ear the Music I Hear" that explored the effects music has on the brain.

"Music has this way when you let it in it'll take you anywhere," Burkett says. The 5½ year senior has always loved music. Burkett went to high school in Sioux Falls, S.D., but grew up in Nebraska. "I'm a Midwestern boy," he says. He was surrounded by music since growing up with his musical brother and sister. Burkett was inspired by his cousin. "I kind of have this idea of a family band," he says.

Burkett came into the music program late. He considered philosophy and psychology. The interest in psychology "may explain why I did the report I did," he says.

He will have his bachelor's degree in music performance after this year. He plays guitar, mandolin, piano and a little bit of drums. He also plays in several bands and ensembles. He plays in "The Great Divide", a

six piece rock group; Acoustic Trio, a mandolin, guitar and upright bass group; and the guitar ensemble on campus.

Burkett came to MSUM for several reasons. It was close to Sioux Falls, has a good music program and he heard wonderful stories of the then guitar teacher, Glenn Ginn. His advice to younger students is: "Have a plan to graduate in a certain amount of time so that you don't end up spending 5½ years in school."

Burkett rates the SAC as a positive experience. "It's good to force yourself to get in front of people," he says. He talked for twelve minutes during the presentation and demonstrated sounds using his guitar.

Burkett is serious about his music. He works part time at Marguerite's Music in Moorhead giving guitar lessons. After he graduates this year he wants to "do some traveling to find the American dream" with his brother.

In the first grade he was sitting in the gym listening to a group of musicians that came into play for them. While listening he realized the true potential of music when he closed his eyes and the music carried him to the soaring skies of his imagination.



# INSIDERS' GUIDE

11th Annual Student Academic Conference

## Casino operations management explored

by students at SAC      By Dayton Schwieger

unning a casino is a complicated task. That's what Jason Johnson showed on his poster, "Operations Management at a Casino," at the 2008 Student Academic Conference. Johnson and his partner, Maggie Wohlf, showed why the casino is such a risky business. They also showed the need for a solid floor plan as well as security and surveillance systems.

Johnson participated in the SAC because, "It is a good thing to put on your resume and you get a free lunch out of the deal," he said. "People who are shy about talking to people in public places would find this a great opportunity to practice and get over those nerves."

When Johnson first thought about what to do for the conference he was unsure, but then decided on casino operations because he wanted to learn more about an industry that affected a great amount of people. "It interested me because it has always been a large industry involving the flow of cash to multiple persons," he said.

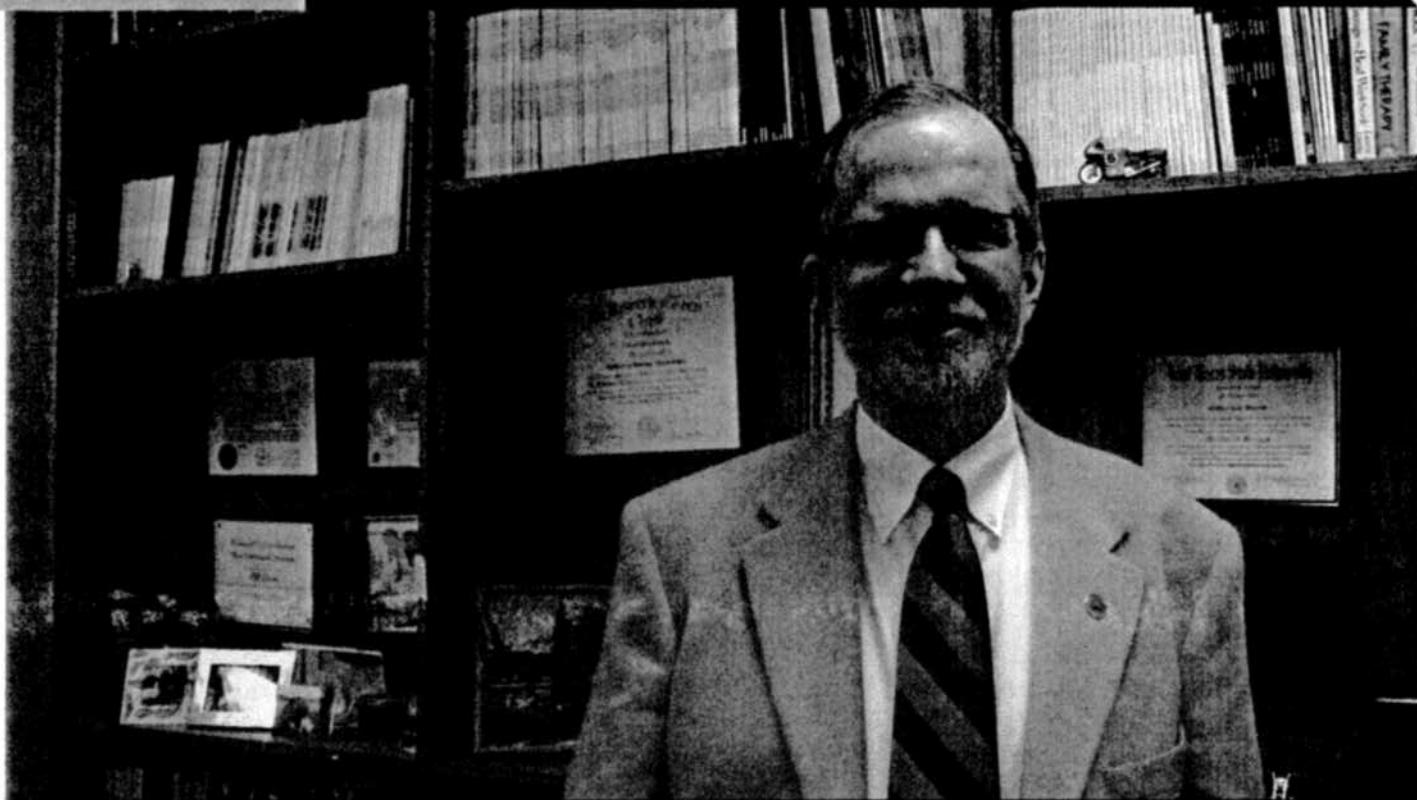
With all the money traveling through a casino on any given day, casino managers must be aware of people trying to cheat the system. Security systems are one area Johnson found interesting. "The security systems that were installed in some of the casinos were state of the art systems that I have never seen or heard about before," he said. "The huge floor plans and processes that casinos go through to make sure money and chips are secure within the casino is unreal."

Some of the things casinos do for security most people don't know about. "One thing especially that caught my eye was they put computer chips into the play chips to keep track of each individual chip," Johnson said.

Looking back on the conference Johnson said he learned things he had no idea about before doing his research. He is glad he participated and said, "It has given me more practice in presenting information to the public and might help people who have not heard about casino operations before."



[The SAC] is a good thing to put on your resume and you get a free lunch out of the deal.



## Clifford Schuette: Conference prepares students for workplace

By Rachel Zoerner

Photo by Megan Olson

Each year students who participate in the Student Academic Conference are improving their resume and skills essential in the workplace. Clifford Schuette, director of Career Services at MSUM, helps students find meaningful work and internships and prepare

"The SAC is a clear accomplishment and recognition of effort," Schuette said. "It's impressive." Participating in the SAC can only benefit a student, especially in the long run. It could be the difference of being hired over someone else or not. "It's a track record of accomplishment and personality for the workplace."

Meaningful job experience is important, but real world experience is key. Some students work individually and others work in a group. "Being on a team project is invaluable," Schuette said. "It shows employers you are a team player, can engage in group problem solving and good communication skills."

Schuette said it's important to get public speaking experience. The more persuasive people are, the easier it is to sell people on things. "It can lead into things like becoming a trainer."

An easy way to learn something is to teach about it. "People who are participating are learning a lot more than the people viewing the presentations," he said. It's a bigger thing than people think because, "It shows you're persistent."

Doing something extra speaks volumes. "I see students who have a pretty decent resume because of their work experience and when they can show they have an academic conference experience, it's a bonus," Schuette said. "It's notable."

In the workplace students will definitely have to do things like SAC presentations. Schuette said students often have to demonstrate their knowledge and expertise to their peers.

"It's important to have a clear picture of what you want to accomplish," he said. His advice to students who are thinking about participating in the SAC is, "By all means, go for it."

## Costa Rica field trip provides research for SAC presentations

By Hannah Sargent

Susan Bury, a junior at MSUM, traveled to Costa Rica last spring for her field biology course. Bury and the other students were required to participate in the Student Academic Conference.

"We chose our own topics from a list of recommended topics relevant to tropical ecosystems and/or about Costa Rica specifically," Bury said. "It was hard to find a topic before we went because we only had a few weeks to think about it and we had to submit our abstract to the SAC before we even started our project."

Even though it was tough for Bury and her other group members, Philip Haugrud, Tony Stumbo, and Jessie Miller, to choose a topic, she was happy with the end product. "After the fact, I have to say I am pleased with the topic we picked because I knew little to none about it, and I learned a great deal," she said.

Bury enjoyed her time in Costa Rica and felt privileged to travel there with her MSUM field biology class. "The places we got to see were not open to tourists and those places would be my impetus to go back," she said. "Such alluring places include San Miguel, a total biology reserve-no tourists allowed and the wildlife is left completely untouched by humans."

Bury's SAC title was, "Sustainability initiatives in the Costa Rican coffee industry in need of reform." The group focused on the coffee industry and how it is not sustainable.

"The U.S., is the number one consumer in the world, but we make no coffee in the U.S., so that also makes us the number one importer," Bury said. "The

actual producers of coffee get paid very little for their product, in fact the price of coffee has plummeted over the years, and the industry is in a crisis, and yet retailers are still charging just as much if not more."

Through this project and all that Bury has learned traveling and studying the effects of the coffee

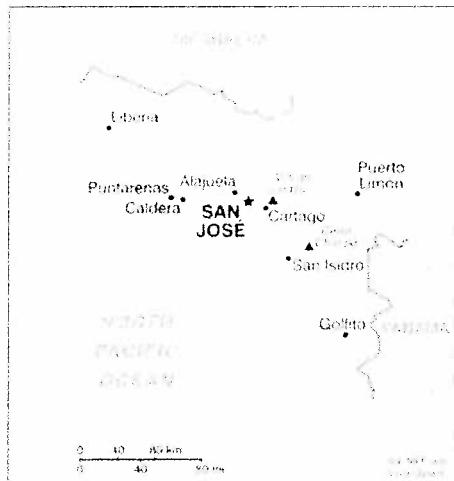
industry, her thoughts on buying coffee have changed. "I have to say I will not buy any coffee that is made from Robusta species beans which are cheaply made and are of much lower quality taste," she said, "I do however buy coffee that is made from larger producers, but I try to buy fair trade coffee and organics."

Bury explained the main issue: "It's like trying to level the playing field, even though large farms have a huge advantage over the smaller ones with all the technologies they use, it makes it more fair if they practice fair wages with the workers they hire."

For the conference Bury said, "I love going to the Student Academic Conference. I've been to it every year, sometimes to present, but mostly I love to look around at all the cool posters."

But Bury was a little nervous for the presentation. "Our presentation was broken into sections and I had the last section, and basically I had to rush like mad through it because there was no more time," she said. "I am a horribly nervous public speaker so that didn't help."

But Bury considers her team's presentation a success. "The people that listened said they learned new, interesting things about the coffee industry," she said.



## Dr. Anna Arnar appreciates SAC's continuous growth

Story and photo by Addie Borgh

**D**r. Anna Arnar has been a factor in the expansion of the Student Academic Conference, and she appreciates its continuous growth.

Arnar, an art history professor at MSUM, has been teaching full time since 1996. She loves learning, especially from the creative students in the art department. "It is fun to see others learn," she said.

Working with numerous students from the art department, Arnar has a heavy presence as an adviser at the conference. Her students, however, have an edge. For a grade in her course, students are required to prepare a 20 to 30 minute presentation on a specific topic. Since the students already have the toughest part finished, Arnar pushes them toward shortening their presentations and entering the conference.

In early years of the conference, interferences with the art department's portfolio reviews prevented Arnar from becoming involved in the conference. Now, better scheduling has been adapted and the professor is able to participate in both. "I am required to have so many days of class," she said.

Since there is an annually set date for the SAC, Arnar believes it is easier to accommodate it in class schedules. She credits the rapid increase of students participating to the growing awareness students have of the conference.

Arnar is one of the reasons the variety of topics covered at the conference has expanded since it started. "The conference is very well structured and can be used as a stepping stone," she said. One student she advised through the conference later presented at the Red River Valley Women's State Conference.

Arnar also recalls an instance when a group of students got into a heated discussion on a topic covered at the SAC. The professor was impressed

with their involvement. "The students had a discussion on their own initiative," she said.

The professor suggests participants work on public speaking skills and have their peers critique their projects. "Pick a topic that suits the time frame," she said. Arnar hopes all students are active either as conference participants or attendees.



**"**The conference is very well structured and can be used as a stepping stone.**"**

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## 11th Annual Student Academic Conference

### Dr. Headrick urges students to expand on ideas

By Elliot Hoekstra

**D**r. Barbara Headrick has been involved with the Student Academic Conference since it began in 1998. She is the chair of the political science department at MSUM and is no stranger to the program. Though she has not always advised students, she has volunteered her time to contribute to the purpose of the conference.

"I've been connected with universities since I was 18 years old and don't know another place that does something like this," Headrick said.

Headrick advised over a dozen different projects at the 2008 SAC. She feels that students involved with the conference not only get the opportunity to present their research, but observe other dedicated students around the MSUM campus.

Headrick's experiences over the years have given her a great deal of admiration for students who present at the conference. She has seen firsthand the commitment and work it takes to give a strong presentation at the SAC.

"For first time students I recommend using a paper already done for a class," Headrick said. "Work with your professors, expand it and make sure you feel confident enough to present the project and yourself."

Headrick suggested a different strategy for students returning to present at the conference. She suggested looking within an internship or independent study and tying it into the SAC. She believes that presenting at the conference is a great piece to add to any student's resume.

Headrick takes a particular approach with her students when trying to involve them with the conference. Some departments on campus get potential presenters started early in the year. However, Headrick waits for a certain paper or project in her classes to stand out and suggests



Photo by Dylan Jacobson

the students do further research and prepare SAC presentations.

"I have a media and politics class where students write papers, and I look at certain ones that I feel should be expanded," Headrick said. "They need to build on what they have already learned."

Staying involved with the conference was a simple decision for Headrick. After all her past experiences and watching students excel, she plans to continue supporting the conference for years to come.

## Dr. Deborah White: Conference is 'best asset we have at MSUM'

By Kazune Aida

**D**r. Deborah White, a professor of sociology and criminal justice, is one of the greatest advocates of the Student Academic Conference. "It's a wonderful opportunity for students and a best asset that we have at MSUM," she said. She has been involved in the conference since her first year at MSUM in 2000.

"I'm hoping all students participate in the conference," White said. Every year, five to 10 students in her statistic class are involved in the conference. In her class students learn the scientific survey process, give presentations with visual aids

and give feedback to each other. Finally, some of the students present their project in the conference.

Last year two students in her class presented their research about the smoking ban and its effects. The students researched based on scholarly papers, and combined their own ideas to present together.

"The nice thing about the Student Academic Conference is, almost all students are very nervous doing it, it's a good place to get feedback and good exercise in public speaking but the place is not so intimidating," White said. She considers the conference as a good starting place for a student's future career.

"It is a very good way to prepare for graduate school," White said. Students who are involved in the conference often attend graduate school. "Students can distinguish themselves from other students," she said. She emphasizes the advantage that undergraduate students have from being involved in a research project.

She encourages faculty who have not been involved in the conference to integrate the opportunity in their class. "Some faculty think students have to do a separate project, but they can use the work from class," she said.

In addition to encouraging other faculty, White promotes student participation in the conference. She encourages students to do poster presentations that are less formal and less intimidating instead of panel presentations. "Some students are so nervous to present standing up in front of groups of people," she said.

"The interesting point of the conference is variety of disciplines," White said. In the conference students see the diversity of academics. "It is important to learn how other students do their projects."



Photo by Heather Ehrichs

# INSIDERS' GUIDE

## 11th Annual Student Academic Conference



### Dr. Karen Branden encouraged students at 2008 SAC luncheon

By Mark Murphy

Photo by Regene Radniecki

In this world filled with millions of people, it's hard to notice them all. But for Karen Branden, it's her life and work. Being a sociology professor, she has a knack for understanding how the human species interacts with one another. The way she sees it, "People are more alike than they are different." When asked to speak at the 2008 Student Academic Conference, she was delighted to share some of her experiences in academia.

Branden was born in Houston, Texas, and from there her family moved to Minnesota. She has resided in North St. Paul, Audubon, and Barnesville, where she spent most of her childhood. She didn't really fit in, calling herself "an unpopular person", who longed for something more than Barnesville offered. So after graduating high school, she attended Moorhead State University.

Branden started her college career at the Corrick Center, which she says has had the highest impact on her as a student. "That group of people there are amazing, and I wouldn't be here without them," she said. Branden even boasts that the Dell Corrick award, which she received four years ago, is the award she truly feels proud of.

Branden has had a variety of sociological interests, such as human sexuality and Native American studies. She had been recently studying people, their environment, and how they use natural resources.

A few months before the 2008 SAC, Branden received a call from Vice President Bette Midgarden, asking

Branden to talk about how attending MSU affected her life. Branden thought Midgarden was joking, but when she realized that she was serious, she got to work, preparing a luncheon speech and slideshow for the conference.

She wanted to talk about how Moorhead was where she was "finding out more about myself, and who I wanted to be as a person." This, combined with her recent work with sustainable energy, made up the speech.

Branden received praise for her speech from students and faculty alike. She remembers many compliments, including one that stands out where a student confided in Branden that she felt confused about her future, and that she could identify with Branden's story and work to pursue her own dreams.

Branden is encouraging two students she teaches to present at the 2009 SAC. Each project has a sociological ring to it, with one student, Amber Brockopp, working on a project involving photography and sociology, and another, Davis Kreps, working on a paper about steroids and sports.

Right now Branden is focusing on her recently released book, "From McEnergy to EcoEnergy", printed through Whitmore Books. The book, a collaboration with her husband, Dr. Dennis Jacobs, was in the works after a few years of research and months dealing with publishers. She is also hoping to take a trip to Uganda for teaching, possibly as a sabbatical.



## Dr. Mark Wallert 'thankful Dr. Conteh started it'

By Courtney Untiedt

The junior year of Dr. Mark Wallert's undergraduate career at Southwest Minnesota State University in Marshall, Minn., showed him that being a professor in biosciences was what he wanted to do. He admired his professors and found researching and teaching an exciting career. For the last eighteen years Wallert, a professor at MSUM, has been teaching students about heart cell and cancer research.

Wallert has worked with the Student Academic Conference in the past. "The conference is so important to our students," Wallert said. "We all thought about it and we are thankful Dr. Conteh started it. We need this on our campus. I would have felt guilty if I didn't help out."

The functional unit of the main muscle wall of the heart, known as the heart cell, was research Wallert first did with his students. "The research I did concerned the control of acid levels inside of the muscle cells," Wallert said. "Maintaining a neutral intracellular pH is essential for the heart muscle to contract and pump blood to the body."

Photo by Adam Gill

The change from heart cell to cancer came about due to the lack of funds in heart cell research. "We gave up what we were doing historically, took a risk and changed directions," Wallert said.

The area of cancer that Wallert and his students are researching is metastasis, the migration of cancer cells from a tumor of origin to other areas of a body where they form new tumors. "Our work focuses on proteins inside and outside cancer cells that coordinate the cancer cells ability to migrate," Wallert said. "Specifically, we look at how hormones that are produced during periods of stress impact cancer progression."

When Wallert isn't working with SAC or researching cancer, he is out hunting or fishing with his family or catching up with past students. Interactions with students and seeing their reactions to their research are what he enjoys seeing. "To see kids mature and see what is possible is what it is all about," Wallert said. "I have my dream job. It's what I wanted. It's more challenging and rewarding. At the end of the day, it all balances out."

# INSIDERS' GUIDE

## 11th Annual Student Academic Conference



### Juried Art Exhibition and Theatre Exhibition showcase art and drama students' work

By Teresa Folkestad

The Juried Student Art Exhibition and the Theatre Arts Department Exhibition are opportunities for art and theatre students to showcase their work during the Student Academic Conference.

The Juried Student Art Exhibition is an annual event open to all art majors. Last year's exhibition was on display from March 28 through April 9 in the gallery, located in the Roland Dille Center for the Arts.

"There have been annual Juried Student Exhibits at MSUM for over 50 years," Gallery Manager Jane Gudmundson said. "They always were on display during spring semester, but not in conjunction with the academic conference." Last year was the third time the juried art exhibition has been a part of the Student Academic Conference.

Drawings, paintings, sculptures, graphic design, ceramics, printmaking, and photography are included in the exhibition. To enter, students submit up to two pieces of their best work. A visiting artist acts as juror and selects what he thinks is the best piece of work in the exhibition.

The juror for the 2008 Art Exhibition was Nick Cave who is an installation/performance artist and a fashion designer. He is also the associate professor in fashion design at the School of the Art Institute of Chicago. His work has been shown in galleries in the United States and Europe.

Photo by Regene Radniecki

The Juried Student Art Exhibition is open to all art majors at MSUM. "Entering and being accepted into a juried exhibition is a good resume builder," Gudmundson said. "There is also an added attraction of maybe winning prizes."

The Theatre Art Department exhibition during the Student Academic Conference demonstrates skills that students learn in all their theatre classes and activities. Theatre students offered three demonstrations last year including, "The Power of Dance," "The Kennedy Center American College Theatre Festival: The Audition Process," and "A Mini-Drama: An Original One-Act Play."

"The Power of Dance" was a demonstration of works in-progress by Dance for Stage II students as they prepared to dance in an upcoming dance showcase.

MSUM students also demonstrated audition packages created for the Kennedy Center American College Theatre Festival and the Irene Ryan Acting Competition. An audition is a sample performance by an actor, singer, musician, dancer, or other performing artist which demonstrates performer's level and range of talent.

The final theatre demonstration was the "Mini-Drama: An Original One-Act Play." Drama students presented a concert reading of, "An Old Album," Richard Paul Klein's play which won the regional Kennedy Center American College Theatre Festival award for excellence.

*continued on next page...*

## Voels works behind the scenes as student assistant

By Trisha Johnson

Each spring at MSUM, many students present their research in the Student Academic Conference. But what does it take to organize the SAC? Many volunteers behind the scenes help the conference run smoothly.

One student volunteer is Justin Voels, a junior at MSUM majoring in computer science. Voels has been involved with the SAC since August of 2007, and this year will mark his second year as a volunteer. "The person who worked in my position previously visited my sophomore programming class looking for a candidate since he was graduating," Voels said. "I recognized the opportunity to work in or near my field of study during my college career."

Voels worked at the SAC as a student assistant. "I and the other organizers play very different roles however," Voels said. Voels spends a majority of his time on special projects. For example, he works on building the SAC booklet from the database without any of the staff or printing services staff manually handling any of the data.

Many people are needed to help with the SAC. "There are three student assistants, two committees and a conference coordinator," Voels said. "Together they total 22 people this year. The committee members,

which include the student assistants and the conference coordinator, are the heart of the SAC."

Voels' favorite part of the SAC is the conference day itself. "Students are well dressed, excited, and a healthy sense of pride carries them through one of the most valuable experiences of their college career," he said.

Although he has not presented in the SAC himself, he contemplated presenting in last year's conference. However, he decided it was better to be available to work. "Working with the SAC has built important skills for me outside of my field alone," Voels said. "I value most the communication, social, logistical, and teamwork skills that I've found and continue to develop."

Voels believes that the SAC is a very important experience for students. "I feel that participation in an academic conference such as ours is a necessary experience for undergraduate and graduate students at any university," he said. "Participation gives students the opportunity to experience a professional setting, something they need to be used to quickly after graduating."

Voels plans to present undergraduate research at the 2009 conference.

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in playwriting.

Klein, a student in MSUM's MFA in Creative Writing program, later was one of only five students across the nation to receive a 2008 National Selection Team Fellowship to attend the National Festival at the John F. Kennedy Center for the Performing Arts in Washington, D.C. where his play was given a full concert reading performed by Equity actors from Wooly Mammoth Theatre Company.

Craig Ellingson, MSUM Theatre Director, encourages all theatre students to participate in the theatre art exhibition. "There are many forms they can partake in a creative way as another venue of student research and activity," he said.

Students are well dressed, excited, and a healthy sense of pride carries them through one of the most valuable experiences of their college career.

# INSIDERS' GUIDE

11th Annual Student Academic Conference

## Gorsline tells students to follow their interests

By Rachel Wassberg

When students choose research topics for the Student Academic Conference, Professor Denise Gorsline recommends that they choose subjects they already care about. Gorsline, a communication studies professor, advised two students for last year's SAC. Both students researched topics that they already had experience in, and she said that made their presentations more interesting.



Photo by Kim Fuerstenberg

Peter Kleckner did a project in Gorsline's class demonstrating the Minnesota Relay service. She thought the topic was fascinating, and encouraged him to do more research and register for the SAC. "Instead of a research project that seems artificial," Gorsline said, "It was perfect for the conference because it was a part of his own being."

Kleckner presented "Can You Hear Me Now? Technology and Learning for Deaf Students," a project that highlighted technologies for hearing-impaired people including closed-captioning and the relay service. Gorsline thought it was a valuable presentation because it is "something that people are embarrassed to ask or talk about."

Gorsline also advised Heidi Mingo for the conference. Dual majoring in communications studies and Spanish, Mingo researched how the two intersect. She presented "Communicative Strategies When Interpreting a Foreign Language," a project about communication between cultures in today's society. "It's not just your language skills but also your approach," Gorsline said, "She talked a lot about non-verbal language."

Both students chose their topics in the fall and registered in February. The amount of work done for the presentation completely depends on the student. "Some do it at the last minute of course, but some work steadily," Gorsline said, "The student can really make it great or make it minimal."

The audiences at the presentations are usually small and include family, friends and other presenters. But Gorsline maintains that it is a valuable experience. "It's a good chance for someone to get a little practice presenting," she said.

She thinks the conference creates some excitement on campus. "You realize that something's going on," she said, "Everyone's dressed up and carrying poster boards and visual aids."

## Hauck will miss being in 2009 conference

By Rachel Holen

Iraq will prevent him from participating in the 2009 Student Academic Conference, but Sean Hauck presented at the 2008 conference. "I received extra credit in my management class just for participating in the SAC," he said. "That was my biggest reason for doing the conference."

Hauck, a senior at MSUM, along with a group of other students chose Division One college football ranking as their topic. "Our topic was chosen because our group consisted of all males that enjoy football," he said. "This made the project more interesting."

Finding information and sources for the group's topic was simple. "It was very easy to find information on our topic because the college football ranking/Bowl Championship Series has a very long history," Hauck said. "Our sources consisted of the main web page for the BCS and a couple of internet sources."

Although the group was pleased with the outcome of its performance at the SAC, students had a difficult time explaining the ranking method to observers who did not know much about college football. Hauck explained it in simpler terms. "Basically college football teams are ranked every week based upon a number of factors," he said. "Many mathematical equations are used to

give a team a certain rating. The coaches' opinions of where teams should be ranked are also thrown into the mix. It is a highly in-depth process that is difficult to explain . . ."

Hauck said he and his group do not believe the ranking system makes sense, so they thought of an alternative. "I believe NCAA college football should get rid of the Bowl Championship Series and have some type of playoff system instead, maybe something similar to the NFL," Hauck said. "This would end the discussion every year of who is the best college football team in the United States because there would be one all-out champion."

Although the ranking method may never change, Hauck believes people will continue to watch the sport despite its confusing methods. "I do not believe the ranking system in college football has any effect on people's interest in the sport," he said. "People are going to watch football no matter what kind of ranking there is."

The four-year high school football player suggests participating in the SAC to other students because it looks good on a resume, and they might receive extra credit for participating. "It's a great experience and you'll get a lot out of

it," Hauck said.

For students who do plan to participate in a conference, Hauck has three words of advice: "Just be yourself."



## Humphers-Ginther says SAC helps students get more involved

By Ameilia Curtiss

To Susan Humphers-Ginther the Student Academic Conference is a way for students to get more involved. "I like that the conference gives our students an opportunity to present their research in a very friendly environment that is also a professional conference in that it is taken seriously by the university community," Humphers-Ginther said. SAC is an annual conference where students can display and talk about the research they have done in their field.

Humphers-Ginther, a sociology professor, has been involved with the conference for many years. She has been in various roles when assisting with the conference. She has helped with registration, and every year she strongly recommends that her students present their material at the conference.

Her sociology 375 students present each year, as many as 17 in one conference. She also offers extra credit points to those who participate. "This is a unique opportunity for undergraduate students to gain practice at presenting their work and build their resumes," Humphers-Ginther said.

Humphers-Ginther is excited that MSUM has decided to "take it up a notch" and cancel classes on the day of

the conference to make it easier for other students to attend. It also shows that college has a higher regard for the conference. "Canceling classes on that day frees up classrooms around campus for conference and related activities," Humphers-Ginther said.

"It seems to me that last year's student presenters worked hard to prepare their best work for public consumption," she said. She also said she can tell that the students take the conference seriously as noted by their professional dress and their level of anxiety about the conference.

Each student who participates in SAC must choose an advisor. Humphers-Ginther works very closely with students when preparing for the conference. "The students I advise for the conference almost exclusively come from my spring semester course," Ginther said. She and her students take time out of her teaching period to research and prepare for the conference.

"I want people to know that we have bright, inquisitive students here at MSUM who are genuinely motivated to learn and want to be as prepared for their futures as possible," Humphers-Ginther said.

## Flickinger used research paper as source for SAC project

By Kaylee Osowski

A past Student Academic Conference participant's advice for other MSUM students is just to do it. "It will help you in many, many ways," he said.

Michael Flickinger's academic advisor thought it would be a good idea for him to share his work at the conference, especially since Flickinger is applying to graduate school. The fourth year senior thought it would be a valuable experience for him because he was unfamiliar with that aspect of academics.

Flickinger decided on his topic by choosing his best piece of writing. This happened to be a paper about the symbolic meanings and the functions of the road and the walking songs in JRR Tolkien's "The Hobbit" and "The Lord of the Rings" trilogy.

The paper had taken the English major a few weeks to write. He revised it about 20 times to get it ready for the conference. After making his revisions, he made sure that the paper was the right length. Next, he read his paper out loud to make sure that the timing was right for the conference.

Flickinger said the worst part of the conference was the five minutes before he presented his work because he was nervous.

His favorite part was giving his presentation. There is one thing that Flickinger would've changed. "I would have memorized my presentation a little better so I wouldn't have been reading the whole time," he said.

In the future, Flickinger would like to have more people from similar curricula present in the same area. He also would like to see more presentations, especially from other English scholars.

Flickinger is glad he participated in the conference and thinks that every MSUM student should participate. Not only did he find out that he liked a side of academia that he hadn't seen before, but his public speaking also improved.

"I don't think students understand what a cool thing this is," Flickinger said. "There are so many benefits to this that you might not even realize."



## Huot sees student conference as 'unique opportunity'

By Brianna Huotari

Photo by Dylan Jacobson

**C**hristopher Huot, an assistant professor and clinical coordinator of the athletic education training program at MSUM, describes the Student Academic Conference: "It is a unique opportunity for students of MSUM to demonstrate their hard work, talents, and skills to their peers, the university and the community. It also looks great on a resume!"

Huot grew up in small town Red Lake Falls, Minn., which is about 90 miles northeast of Moorhead. He went to Mankato State University where got his bachelor's degree in athletic training. Then, he earned his master's degree in athletic training at Western Michigan University. While working at MSUM, he is taking classes at NDSU toward a doctorate in adult and occupational education.

Huot came to MSUM from the University of Wisconsin Steven's Point where he worked as the director of athletic training services and instructor. His favorite thing about his job is enjoying the student interaction and watching them succeed.

When Huot arrived at MSUM the department chair asked him if he wanted to serve on the SAC logistics committee. The athletic training program requires senior athletic training students to present their major

work from the senior seminar course. That is how he got involved with the program.

The logistics committee is mostly "behind the scenes work." They begin their work in the early fall, meeting about every two weeks. "The committee members and Dr. Conteh work very hard to organize the event," Huot said. Some of the duties are securing the volunteers, lunch menu, displays, AV equipment and getting the CMU and other buildings ready for the SAC.

Huot will be helping the senior level athletic training students prepare their work for either a live or poster presentation. They do a more formal presentation of their work to the athletic training education program during the AT 420 course.

Although Huot is not working with the logistics committee this year, he encourages students to become involved in the conference. "It is a wonderful opportunity that is unique to MSUM," he said.

Students may be a bit hesitant at first but when it is all said and done, they are very pleased to be a part of the SAC, Huot said. "I am always amazed at what our students can do!"

## Dr. Stephen Hamrick favors mandating SAC experience

By David Diebel

Dr. Stephen Hamrick believes so much in the importance and effectiveness of the SAC as a part of a student's career, he proposes it should be required for all students. "I think every student should present—in fact, I think it should be a requirement for graduation," Hamrick said.

Hamrick plays an integral role on campus by teaching several English courses and serving as director of the University Honors Program.

Hamrick has been part of the MSUM community for six years. Three years ago he became the director of the Honors Program. When revising the Honors Program, Hamrick knew the Student Academic Conference would become an important part of the curriculum for Honors Students. "Each Honors Student will get the chance to present at the SAC twice," Hamrick said.

Hamrick said the SAC provides benefits for students as well as faculty members. "To remain vibrant and effective as faculty, it is necessary to stay in touch and share research," Hamrick said. The conference gives faculty a way to evaluate students who are presenting and also creates new opportunities for research.

The real benefit is to students Hamrick said. He believes the SAC gives students a tangible competitive advantage. "It helps students get used to doing work on a professional level," he said. "They have the opportunity to do professional level research and to go through the process of presenting it publicly and dynamically—it isn't easy."

Not only does Hamrick cite the benefits of the SAC for students and faculty alike, he also finds personal satisfaction by being involved. "It's a fulfilling experience to see all these students, some whom you have even taught, come together for the Student Academic Conference."



It's a fulfilling experience to see all these students, some whom you have even taught, come together for the SAC.

## Language department professor lauds student conference

By Ben Mahowald

In 1998 the idea of the Student Academic Conference was proposed to administrators at Minnesota State University Moorhead. The brainchild of Ryan Sylvester and Dr. Andrew Conteh, the conference is growing in numbers each year.

Dr. Cecilia Mafla-Bustamante has participated in the conference as a moderator once in 2004 and again in 2007. "It is a great thing for students," she said. "It presents an opportunity for a formal presentation. The conference makes a good impression on the students here at MSUM. The community has appreciated what the students have done."

Many advantages come from the conference. "It can be very beneficial for what students are working on in class," she said. The conference doesn't just deal directly with random issues, but reinforces material from class. Students can actually expand on the information they learn on a week-to-week basis.

Mafla-Bustamante remembers a compliment that she got at the conference in 2004. After one of her students gave a presentation, she was approached by a member of the community. He told her how impressed he was of the proper Spanish that her students had spoken that day. The conference reflects respectfully on the professors and the presenters, and Mafla-Bustamante recalls one student who thanked her for her encouragement.

She thinks one of the most beneficial aspect of the conference is the real-life simulation. It is a chance for students to be put in front of their peers, people they already know, and professionally present to an audience. It takes courage to walk up in front of a room full of people, and it is commendable to deliver an opinion," she said.

Mafla-Bustamante enjoys nudging her students to participate. "A student may analyze a novel as a course project," she said. "I help the students practice and guide them for a presentation in front of their friends and the audience they know."

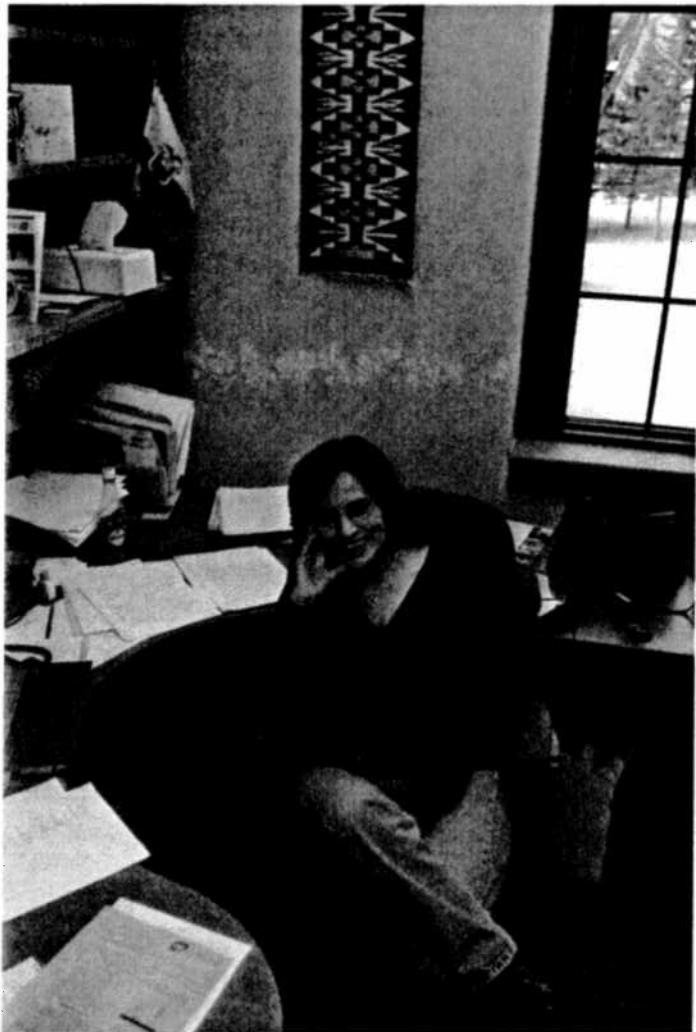


Photo by Lille Lambert

The conference makes a good impression on the students here at MSUM.

**INSIDERS' GUIDE**

11th Annual Student Academic Conference

**Mass comm students demonstrate digital portfolio at SAC**

By Amber Brockopp

Photo by Regene Radniecki

**S**tudent Academic Conference presentations can be given by PowerPoint, poster board, and overhead projectors, but preparing with these methods can become a lot of work. At the 2008 conference in 2008 Jessalyn Brown, and Penny Burns presented, "An Online Digital Portfolio: Constructing a Simple But Elegant Presentation of Your Work."

The project showed a new, yet professional way to put together a presentation called Soundslides. Soundslides is an easy program to use, and it may be downloaded free from the Internet. It works with programs like FinalCut, InDesign and Photoshop.

Soundslides lets a person convert an interview and photographs into any length format. Brown and Burns did their presentation as an independent study. "We wanted the mass communications program to be represented in the conference," Brown said.

"It was a rather easy thing to put together, really, anybody can do it," she said. All a person has to do is upload photos. "It's as easy as Facebook, but the photos

don't take as long to upload."

Before uploading, Brown and Burns edited the project with Photoshop. They used iPods for their interviews, but then edited their footage through FinalCut. Once it was edited, they uploaded the project to Soundslides and pressed "publish."

Music can be added along with many other things. "The choices are endless with the things that can be done with the program," Brown said. It can also be added to Web sites that are already created. "It's a good way for photographers to have another outlet to put on their resume," Brown said. "It shows that you know more than just taking pictures; you can present them in a very professional way."

One of the things Brown enjoyed about the project was that she could make a great presentation, without being in the library for hours. "It's something that I use all the time," she said. Professor Regene Radniecki advised them on the project.

## The Future of Netspeak

- A dying language?
- Ever expanding technologies
- Education and resistance
- Unprecedented creativity



## Mathison researched netspeak for 2008 conference

By Jordan Jeromchek

Photo by Ryan Kliem

**T**arver Mathison, a senior English writing major, made his decision to participate in the Student Academic Conference based on his desire to become a teacher. "I wanted to develop my ability to teach information about a topic," he said.

Mathison's topic for the SAC was netspeak, a shortened, code-like version of the English language. This language is heavily influenced by acronyms such as "lol" for "laugh out loud," and abbreviations such as "ur" for "your."

While Mathison became familiar with netspeak, he found some things that surprised him. He says that netspeak is a logical form of communication. "For the first time in human history," he said, "the two forms of language—written language and spoken language—have merged into one strange combination."

Mathison thinks that the problem of netspeak will get better over time. "People talk netspeak because they still want to communicate in real-time, but computers restrict that real-time communication through a lack of audio and video transfer," Mathison said. "Yet, with the way technology is advancing, it's only a matter of time before audio-video webcams are standardized into all computers and internet speeds skyrocket."

He says that once the speed restrictions of internet communication are eliminated, the use of netspeak

will decline. "I don't think netspeak will 'destroy' the language—rather, once the need for it diminishes, it will help the language evolve."

Participating in the SAC helped Mathison develop confidence in public speaking, which he says will be an excellent skill to have in the professional world. "It's also a good resume builder, which will make me more competitive in the job and academic markets."

Mathison thinks everyone should participate in the SAC if they have the opportunity. "Don't be afraid to put yourself out there, even if you feel it would be difficult," he said. "The SAC is an enjoyable challenge that will benefit you in the long run."

His audience helped him become much more comfortable when he stepped up to give his presentation. "They seemed genuinely interested, and asked many questions that showed they wanted to know more about netspeak," he said. "By the end, I was having fun."

Mathison said this experience could help him when he gets into the work field. "I've gained an appreciation for public speaking, self-confidence in my ability to convey information, and an interest in learning about areas outside my major."

## Dr. Morrow attracted to MSUM because of academic conference

By Erica Pritchett

The Student Academic Conference was the biggest reason why Dr. Annette Morrow came to MSUM, and she has worked on the committee for four years.

"It poises students professionally, articulates their thoughts, makes them true thinkers and life-long learners," Morrow said.

The first year Morrow was at MSUM, Dr. Andrew Conteh had asked her to be a part of the Academic Conference. With no hesitations, Morrow said, "Yes!"

Morrow teaches ancient medieval history and European women's studies at MSUM. She always wanted to be a professor; it came from the educators within her family, including her mother and grandmother. Family is a big influence in her life and still is today. Morrow went to Texas Tech as an undergraduate and earned her doctorate at the University of Arkansas.

"In the Academic Conference students are able to communicate to an audience of their peers," Morrow said. Most political science and science are able to do more visual aids like posters.

Students can pick their topic and advisors that help them with their presentations. To be a part of the SAC, students can sign up on-line or use entry forms available across campus.

"It helps students through graduate school and history to present these papers," Morrow said. She plans to help with the conference throughout her time at MSUM.

"I love being able to shepherd students through the process." She loves mentoring students and watching them grow. "It brings them to the potential they have even if they are shy or unsure of what to do," Morrow said.

Kristen Thompson, one of Morrow's former students who is now earning her doctorate at New York State University-Binghamton, e-mailed Morrow fall semester.

Thompson participated in the SAC when she was in school and now has to deal with presentations every day. Because of the SAC training, Morrow said Thompson can more effectively present her graduate research.



Photo by Nicole Seitz

[The SAC] poises students professionally, articulates their thoughts, makes them true thinkers and life-long learners.

**Movies led Rehling to her passion for archeology**

By Jake Underlee

Photo by Ben Sailer

Ashley Rehling discovered her passion for the past through movies. The MSUM senior watched the 1956 film "The Ten Commandments" and was impressed with the elegance of the wealthy ancient Egyptians. The movie created an interest in past cultures that led to her decision to become an archaeologist.

Rehling is an anthropology major with an emphasis in archaeology. She presented "Interpretive Explanations of the Depictions of the Origin Myths of the Aztecs" at the Student Academic Conference in spring 2008.

"I highly, highly recommend doing the Student Academic Conference," Rehling said. "It's a great learning experience."

Her presentation described the myths of the early Aztec people as they searched for a new homeland before settling in what is now Mexico City. Rehling said it took about 15 to 20 minutes to tell the story, which included acts of god, tales of war and frequent human sacrifice.

"The Aztecs have always interested me as a culture," Rehling said. She hoped to find the connection between the real and the fantasy in their origin story. "The beginning of the myth isn't known to be true, but there is a part where it does step into history."

The presentation started as a paper Rehling did for another class. When she decided to present it at the SAC she condensed 15 pages of information onto a poster.

"I realized I wanted to be an archaeologist when I was 15 or 16," Rehling said. "The Mummy" film series and "The Ten Commandments" helped pinpoint her passion.

Rehling's archaeology education lets her closely examine the balance between fact and fiction in the movies that first sparked her interest. She is quick to point out that Imhotep, the villain of "The Mummy" film series, was a real person who had success as a doctor and inventor.

However, she sees the need for Hollywood to educate and entertain. "They have to put it in a way that's interesting to people but still maintains some historical accuracy," Rehling said. "I think if they put it as accurate as it is...not many people would go to see it."

Some movies stretch history too far. Rehling mentioned the 2008 film "10,000 BC" with a roll of her eyes. "So much wrong with this movie," she said.

Rehling went to the film with her sister, who agreed to go only if Rehling kept all criticism to herself. "She was very impressed that I didn't say anything, but at the end she had to take it."

Rehling enjoyed her SAC experience and will add it to her resume to attract potential graduate schools. "I recommend it to anybody that wants to delve more into what they want to do," she said. "But take it serious at the same time."

## MSUM senior received grant for SAC independent research

By Peter Jensen

Chris Failing, a senior at MSUM, presented at the 2008 Student Academic Conference as part of a grant he was awarded. "I received the grant for an independent research project," he said. Failing, a double major, thinks the SAC is a good opportunity for students to show what they are learning.

Failing worked on his project with, Bilal Muhomed and Jeff Corrow. "I've known both of them since my freshmen year," he said. "Jeff helped write a student grant for the research project."

Failing said the best part of the conference was talking science with other students. One of his favorite projects was about the regulation of a specific enzyme in the C4 pathway, a pathway of carbon fixation found in plants with high rates of growth and photosynthesis. "I found this project interesting because C4 plants have become an increasingly popular topic in the biofuels industry," he said. C4 plants like corn and switch grass produce twice the biomass of C3 plants.

He is majoring in biology and chemistry with an emphasis in biochemistry. After MSUM he plans to go to medical school to become a family physician. In addition to science Failing enjoys playing the guitar and making independent films with his brother.

His project linked biology and chemistry. "The purpose of my research project was to examine the effects of caffeine on the beta-amyloid production, mitochondrial DNA damage, and Oxidative stress in

laboratory mice," he said. "I chose this topic because I am very interested in the pathogenesis (step by step development of a disease due to a series of changes) of Alzheimer's disease."

Failing said he also chose this topic because in high school he was a Certified Nursing Assistant and worked with many Alzheimer's disease patients.

"I would not do a project similar to this one again," he said. "It was too complex." It took four months to plan the experiment and about another two months to do the experiment. Failing read journal articles about Alzheimer's disease; he had to factor all of the variables such as, how the caffeine will be given to the mice, what techniques will be used, how the tissue samples will be extracted and stored.

"I was responsible for everything involved in the project from animal care to the experimental procedures," he said. "If I were to do this project again I would plan the experiment more carefully and think about every small detail needed to successfully run it."

During the conference Failing stood with his project poster for about one hour and answered questions from students and other SAC spectators. "I had been part of the academic conference my freshmen year," he said. "I was not nervous at all with presenting, and I was very comfortable discussing my project with other students."

His advice to students who want to be part of future Student Academic Conferences? "Don't be nervous, have fun and present," Failing said.



**Don't be nervous; have fun and present.**

## Nursing major preparing for her third conference presentation

By Shari Morlock

**M**SUM Senior Kimberly Ness is a repeat presenter at the annual Student Academic Conference. Ness started her SAC journey as a sophomore in 2007 because one of her professors announced they would award 75 extra credit points to whoever participated.

For Ness' first Student Academic Conference she did a poster presentation titled "Diet, Exercise and Obesity in College-Aged Students." "I just had statistics on when college students work out, why they might not and their eating habits," she said.

Ness chose a poster presentation because the information is readily available to viewers. "Displaying a poster while speaking just seemed like the obvious way to present my project," Ness said. A poster display is one way to present a SAC project. Alternatives include formal presentations that may be facilitated by programs such as PowerPoint or SoundSlides.

Ness enjoyed her SAC experience. "It wasn't too bad in the work load," she said, "It was a little stressful because I put some of it off until the night before, but other than that it was good."

At the 10th annual Student Academic Conference in 2008, Ness did another poster presentation called "Nurses in America." "I just talked about the different types of nurses that there are and why we have such a high demand and need for nurses today," she said.

What started as an extra credit opportunity has grown to a public speaking learning experience. "I didn't get extra credit for the SAC last year" Ness said. "I just did it because it was really fun the first time I did it." Ness plans to do her third SAC presentation this spring.

She recommends that everyone participate in the Student Academic Conference or at least attend. "I gained experience on presenting in front of people," Ness said. "I really wasn't comfortable talking in front of people before, but it has really helped me to become more comfortable."

Both of Ness's SAC presentation ideas were created because she is majoring in nursing, gerontology and community health. She will graduate in May 2009 and will pursue a career in nursing.

## Professor George Holley: Conference is 'one of the better experiences' on campus

By Lotus Awale

"The Student Academic Conference is a baby step, but an important baby step," Professor George Holley said. "It is one of the better experiences students get on campus."

Holley was born in Mississippi and raised in New Orleans. He has been a part of the archaeology department at MSUM since 1999. He graduated with a bachelor's degree from the University of New Orleans and completed his master's and doctorate from Southern Illinois University Carbondale.

He was interested in archaeology since high school. "My interests started out in ancient history as a subset of history in general," Holley said, "After starting college; I realized that a focus on ancient history or classical archaeology was more history and less archaeology. When the opportunity arose to do archaeology in the U.S., I changed my focus."

Before he started teaching, he worked as an archeologist with a big crew. He says that being an archaeologist is not an easy job and it takes you away

from your family. "I got tired of the hotels, long hours and managing a large crew," Holley said.

As for his job now, he says it's a lot easier and involving students in research is the best part of it.

He has been involved in the SAC for four years. "SAC is a necessary introduction to the real world as it forces students to present their ideas to others outside of the classroom," Holley said. "It is a good idea, very positive."

He thinks all faculty should encourage their students to participate. "In the last event, the posters looked more professional and the attendance seemed to be up," Holley said, "I wish I could go to more of the talks; I spent more time on the posters."

Holley gets students involved in the fall semester with getting a topic and starting the research and then hounds them regularly during the spring semester. "My dream would be that every student participates in the SAC at least once during the college," Holley said.

## Nursing students share Nicaragua experiences at SAC

By Anthony McAleer

For the chair of MSUM's nursing department, Dr. Jane Bergland, the Student Academic Conference is a perfect venue for graduate nursing students to showcase their experiences in Nicaragua.

"My students have to present a poster board and if not at the SAC, then somewhere else," Bergland said.

Bergland, chair for MSUM's School of Nursing and Healthcare Leadership, travels with her graduate students each year to Nicaragua. Participants range from six to eight students who visit small villages to treat mostly women and children, since the men are working.

"We see thousands of patients in a two week period," Bergland said, "We see things that would have been treated a long time ago in the U.S."

The group sees a lot of asthma cases since Nicaragua families cook in unventilated homes. "They don't have floors so they sweep the dirt floors."

Bergland is amazed at technologies that have advanced over the years. With roads made out of brick and homes with no established floor, it's almost astonishing to her that everyone had cell phones.

"Certain technologies have taken off: cell phones, not toilets," Bergland said. "It's amazing the way they live, they have two sets of clothing and everything they have is hand made."

Bergland is fond of the conference where her students and others show their research. Since Bergland is so proud of what her students do in Nicaragua, she appreciates the opportunity for others to hear about their experience.

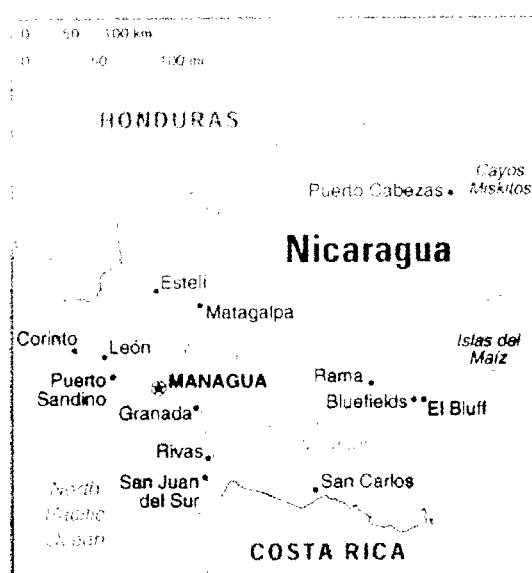
When the event draws near, Bergland gets excited. "I Love it! People can come and see what great things are being done at MSUM," Bergland said.

After participating in the event the previous four years with about one to three students a time, Bergland has seen the rise in recognition of the SAC within the MSUM campus and its community. She advises other professors to encourage their students to participate. "We have a lot of research at the graduate level that isn't seen at the SAC," Bergland said.

As a professor, Bergland has encouraged her students to present at the conference. She grades her students on their presentation of the Nicaragua trip and wants them to share that experience with others.

Bergland is also proud of what the university has done to support the SAC with newsletters and students covering the occasion.

Though staying busy through advising her students during the event, Bergland still finds time to volunteer with different things that the SAC needs to function throughout the day.



## Student Academic Conference simulates professional experiences

By Klarissa Pudwill

Professor Mary Thrond was excited when she first attended MSUM's Student Academic Conference, "because they really do simulate professional and academic conferences which I have been attending," she said.

Professor Thrond is in her fourth year of teaching Spanish at MSUM. She has been involved in international education for 32 years, working in Europe, South America, Asia and the United States.

Thrond has attended MSUM's SAC for four years but was not involved with it until last year. She attributes much of its success to Dr. Andrew Conteh. "I

think of it as the brain child of Dr. Conteh," Thrond said. "He really believes in students reaching their potential."

In order to get involved, she let her students know of the possibility of doing research with her at the beginning of last year's spring semester. From there, she approached strong students and told them she would be willing to brainstorm ideas with them.

Although she is willing to help, Thrond said she would not push a student who didn't seem interested. "It is so much work if they are not self-motivated," she said.

It was not only a learning experience for the students but also for Thrond. She helped three students on

different research projects. One of the projects had to be dropped due to the limited amount of time. It is possible however, that the student may choose to pursue it again for this year's conference.

Another project posed problems by needing to narrow down the student's research. "Her material was riveting," Thrond said. She gave a presentation as part of a literature session.

The third student was an interesting challenge. She researched a topic that involved both Russia and Spain. The student took notes not only in English, but also in Russian. "It was linguistically fascinating," she said.

Thrond said that after the students' proposals

were accepted they had to work intensely every week throughout February and March. It was her role as an advisor to offer support to the students. "With student research, it is so important to listen and to guide them."

She doesn't know if she will be involved yet this year, depending on the willingness of her students and her class schedule. She was pleased however, to be involved last year. "I think it is a phenomenal opportunity for students and professors to work together," Thrond said. "There was a real egalitarian feel to the work."

I think of it [the SAC] as the brain child of Dr. Conteh. He really believes in students reaching their potential.

## Ritchie explains 'push versus pull' at 2008 conference

By Phillip Weiss

Understanding push versus pull in marketing can save hefty sums of money. Knowing when to push or pull a product will determine how efficient the company will be.

Jason Ritchie, a junior at MSUM, was offered extra credit in his operations management class if he entered the Student Academic Conference. "It was a lot of fun because every once and a while someone would ask you to explain the two systems, and if this happens to be a corporate muckymuck, you can maybe even get a job opportunity out of the deal," he said.

Ritchie picked push versus pull because it was a subject he already knew, and it was pertinent to his operations management class. "Push versus pull is about the advantages and disadvantages of the two different production styles," Ritchie said.

Push means firms create products and then try to push it to customers. This style has the advantage of a continuous work process and being able to get the product to the customer right away. However, it has a disadvantage of large storage needs to hold unwanted inventory, along with the worry of outdated inventory, or even spoiled inventory.

"Pull is when you create the product when the customer demands it," Ritchie said. This production style has the advantage of low storage requirements and less outdated inventory. "However, production may not be continuous, you may have to layoff workers at some points and production doesn't start until the customer orders it," he said.

Being in the SAC helped me learn a great deal about the operations of firms and understand different types of thinking towards a problem.

Toyota in the late 80's used the pull method due to its decrease in inventory requirements. "They simply don't have the land requirements to have a huge inventory of unfinished and finished products," Ritchie said. Toyota had their supply chains down to a science so that the wait time on product was minimal.

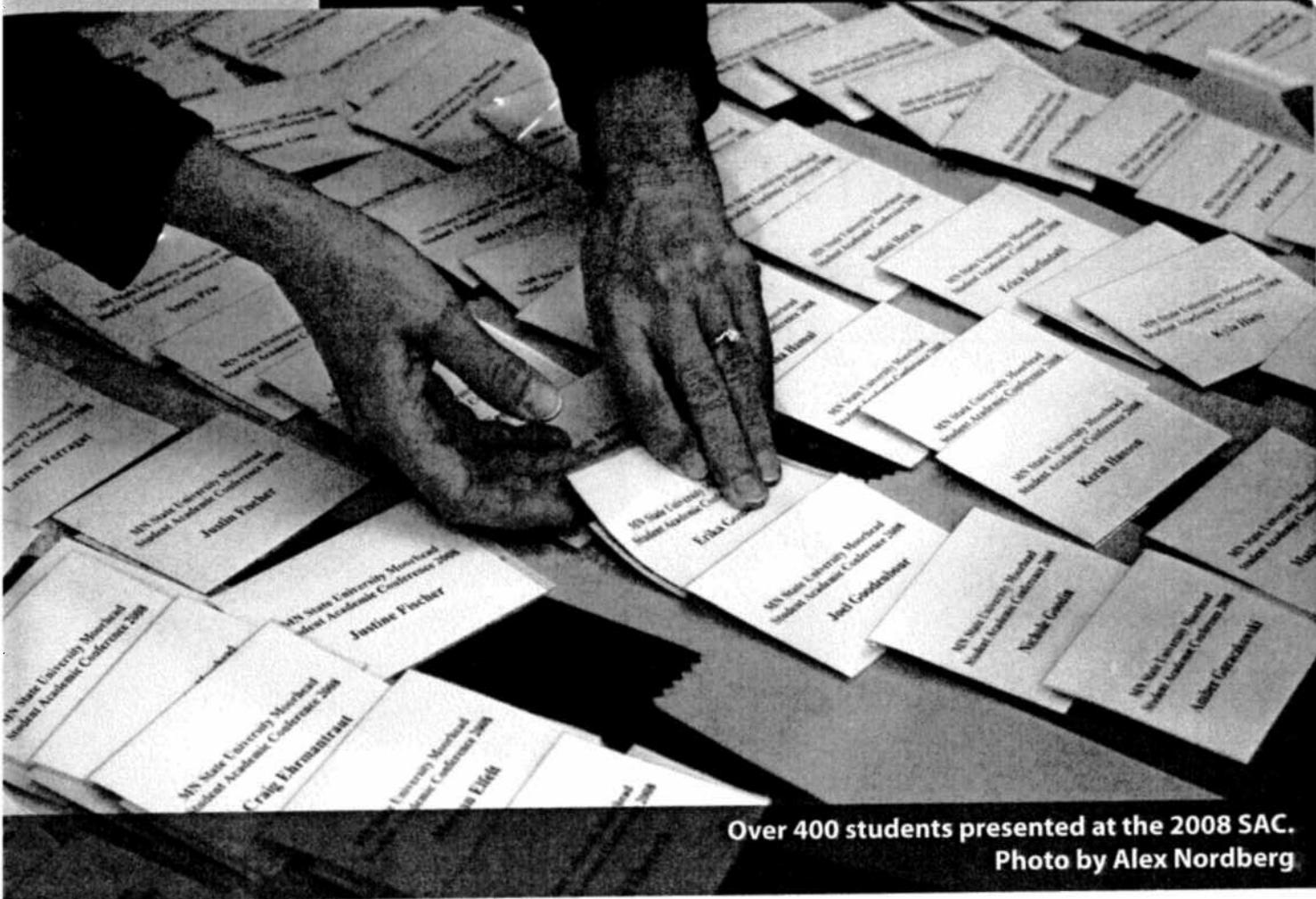
GM used the push method, feeling that if they produced it, the people would buy it. They were wrong, and because of that, they ended up with a huge surplus of vehicles which they had to store, and then put prices of the vehicles below cost levels in order to get people to buy them.

"It seems like people are coming out of college with a degree in business and they're either diehard believers in the pull method, or the push method," Ritchie said. "But the fact is, both are appropriate. It just depends on the circumstances."

If firms produce bulky (due to storage requirements), costly, easily outdated goods then they should probably go with a pull method. This will minimize storage and possible losses if demand isn't what is expected.

"If you produce small, non-obsolete products, like a gear, you may want to go with a push method," Ritchie said. Firms can keep a regular work force throughout all ebbs and flows of demand, and storage costs are minimal. "You can store them for years because they don't take up a lot of space and the buyer can't tell the difference between a metal gear that was made a century ago, and one that was made today," Ritchie said.

"Being in the Student Academic Conference helped me learn a great deal about the operations of firms and understand different types of thinking towards a problem," Ritchie said.



Over 400 students presented at the 2008 SAC.  
Photo by Alex Nordberg

The "Insiders' Guide to the SAC" is written by Gerri Stowman's media writing students.

Photographs are provided by Regene Radniecki and her photography students.

Magazine layout by Ashley Hagen.

## For more information contact:

Student Academic Conference

Dr. Andrew Conteh

Box 500

Minnesota State University Moorhead

Moorhead, MN 56563

(218) 477-4019

acconf@mnstate.edu

<http://www.mnstate.edu/acadconf/>

# THINK AHEAD!

source: <http://www.mnstate.edu/acadconf/>

## HELPFUL HINTS FOR PRESENTERS

### Before Your Presentation

Organize your ideas as to what and how much information needs to be presented in the time frame given.

Practice your presentation beforehand so that you can feel comfortable and at the same time use your time effectively.

Check where or in what room your presentation takes place in advance.

If you use any equipment for your presentation, check if it works beforehand; remember to arrive at your presentation site early enough to do this.

Be confident and enjoy presenting your ideas or creative work with others.

### Poster Printing Guidelines

Posters can be printed at Instructional Media located in the library in room 114

Formats accepted: Powerpoint, PDF, jpg.

Size: Make sure your size properties are the actual size you want the poster to be. If the poster needs to be resized at printing it will take longer to be done and the graphics will most likely become blocky or hard to read.

Most posters are 36" x 56".

You may exceed 41" on one side, but not both, otherwise a more expensive printer will have to be used.

You may email your poster file to [bendel@mnstate.edu](mailto:bendel@mnstate.edu)

Check with the department you are presenting for. They may pay the poster costs for you. If so make sure you get the department account number.

You must include your department account number (if necessary) telephone number and department name.

Cost: \$2 per square foot. (36" x 56" = \$30).

If your file is too large to send by email you may bring your file to Instructional Media on a CD or jump/flash drive and fill out a job form there.

It is preferred that you submit your poster to Instructional Media by March 26 to ensure it is done on time.

The final deadline to submit your poster for printing is April 2nd. If you submit it later than this date there is no guarantee it will be completed on time for the conference.

Contact number: 477-2340



## During Presentation Session

Be respectful of your fellow presenters by staying until the end of the session; it is extremely rude for a presenter to leave before hearing the other presenters.

Actively participate during others' presentations by being attentive and asking questions to stimulate discussion.

Make every effort to hold your audience by maintaining eye contact, modulating your voice, and employing a lively delivery: if you use PowerPoint or other media, be sure to address the audience and not the screen.

Observe closely the time limit placed on your presentation; it is not fair to the next presenter for you to overrun, as the session then end up running too long and everyone is then late for the next event in the program.

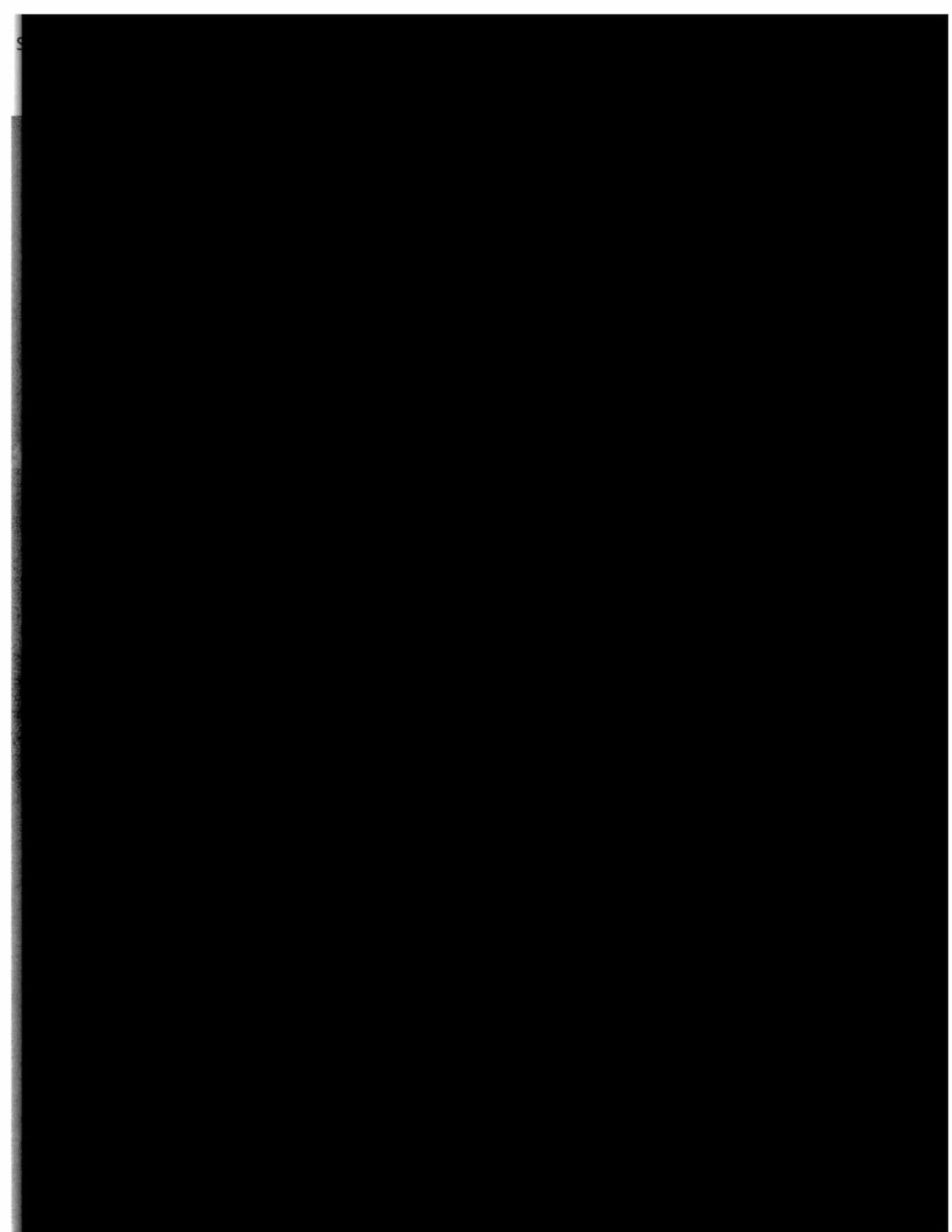
Allow a few minutes for discussion at the end of your presentation; discussion allows you to learn others' perspectives about the topic or issues you presented, find things you have not thought about, and find new questions/topics to explore more in the future.

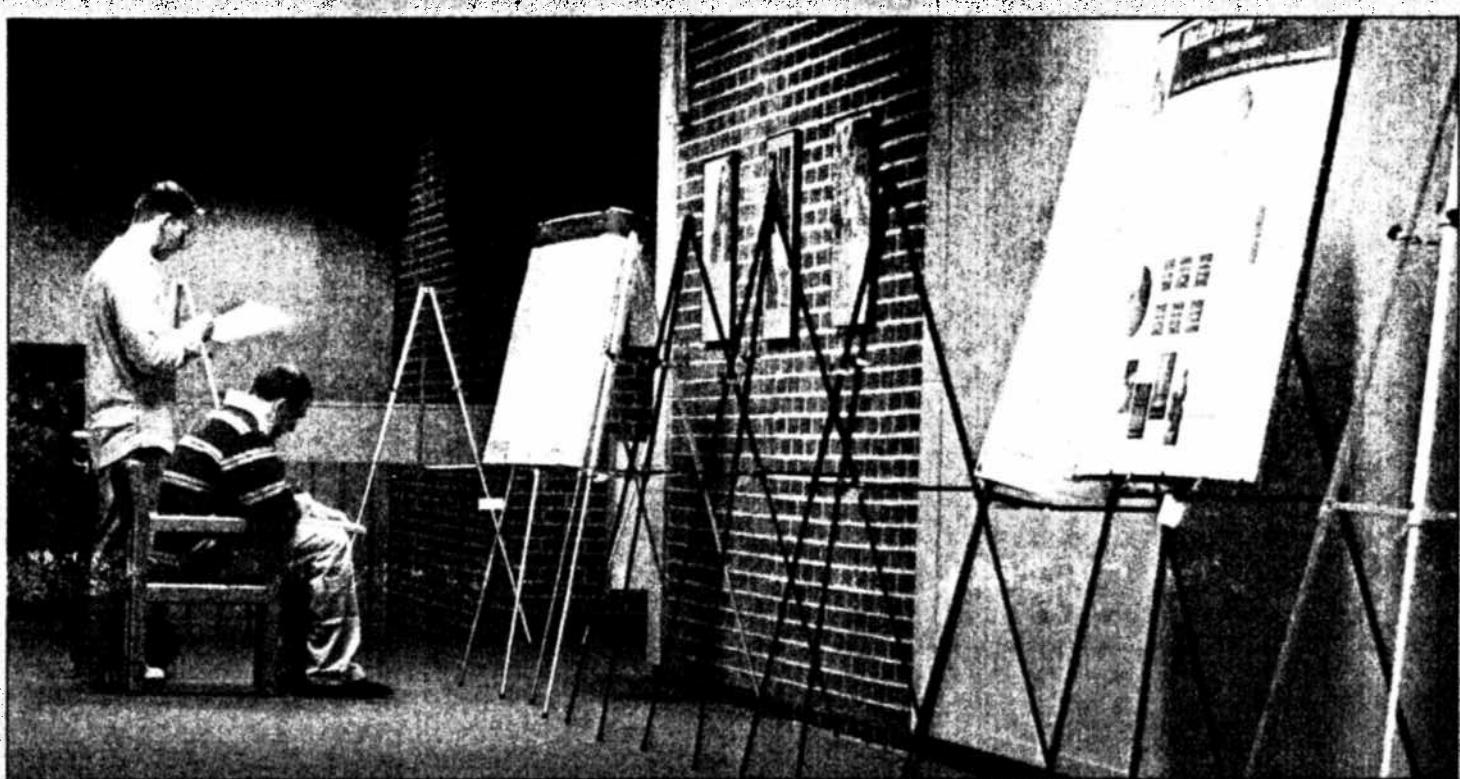
Questions and answers should be brief.

Avoid monopolizing discussions; you can meet with the presenter/questioner after the session if further discussion is necessary.

Turn off your cell phone before the session start.

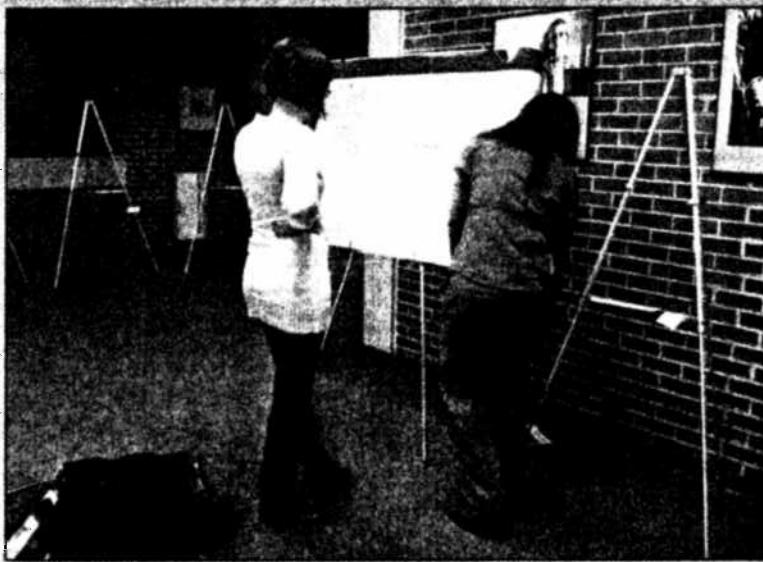
Dress/Present yourself professionally





**Joe Anundson, left, and Blake Restvedt critique student posters for one of their classes.**

**Photo by Alex Nordberg**

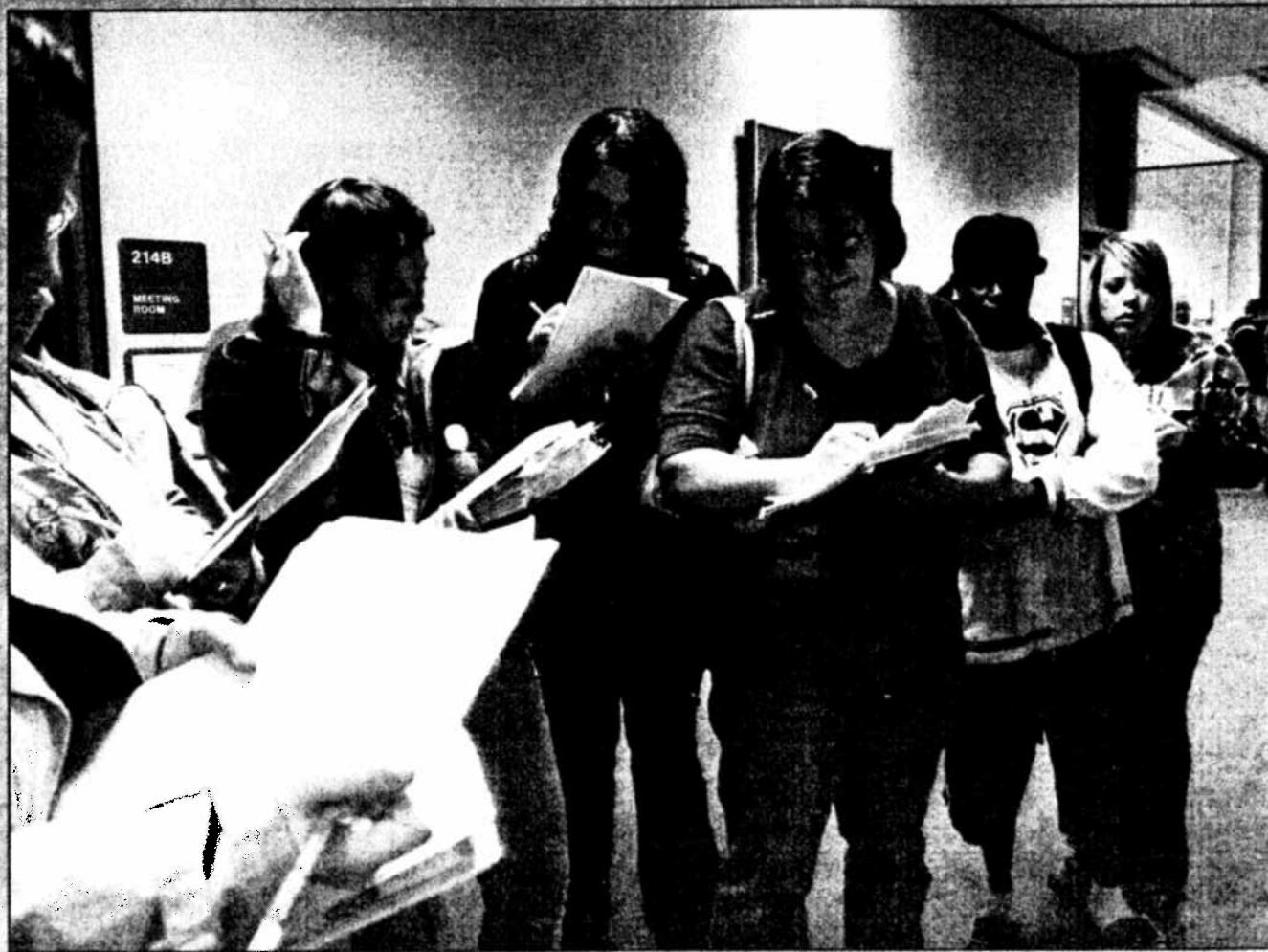
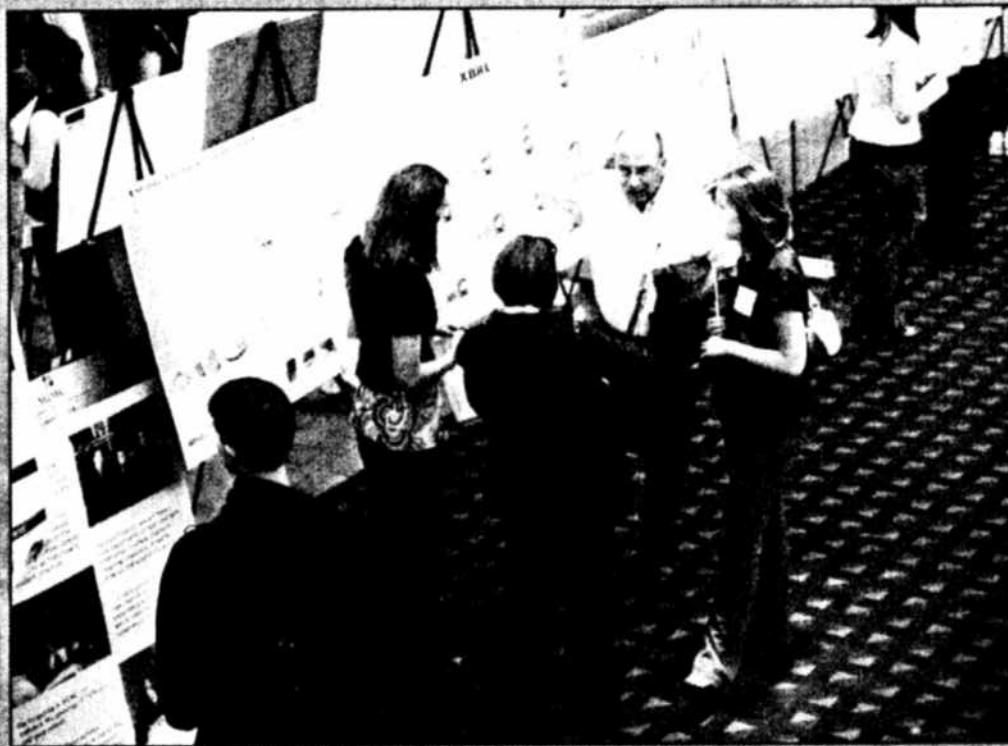


# INSIDERS' GUIDE

11th Annual Student Academic Conference.

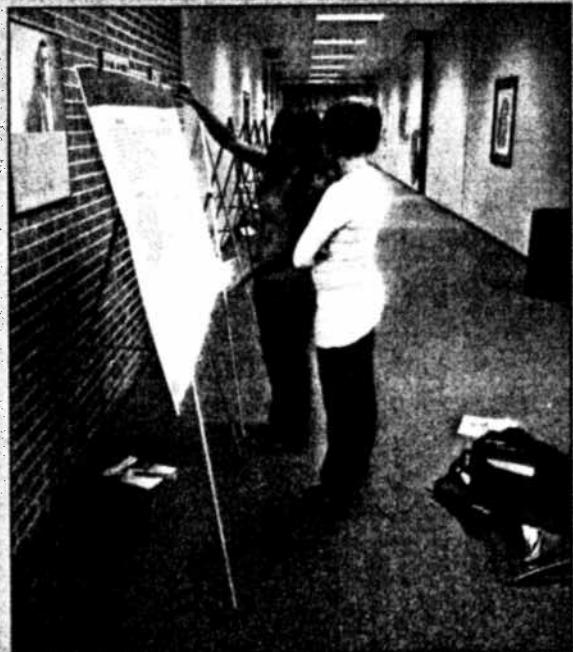
Students may use posters to present their research and answer questions from viewers.  
Photo by Regene Radniecki

2008  
SAC





**Debbie Pestka, Casey Swenson, Lindsey Swenson, Krystal Dassinger and Sherryse Mayo were student panelists at the 2008 SAC Luncheon.**  
**Photo by Regene Radnieki**



**Thelma Apalgyer and Tara Eichhorn make final adjustments.**  
**Photo by Alex Nordberg**



**Photo by Alex Nordberg**





# 11th Annual Student Academic Conference

*"SAC is a significant opportunity for MSUM students to participate in exhilarating research with the ability to present it with a true sense of accomplishment and pride."*

Laura Zeiher  
Undergraduate, Student Senate President

*"The Student Academic Conference is a demonstration of MSUM's commitment to furthering knowledge."*

Brent Voels  
MSUM Alumni

*"Presenting at the Student Academic Conference gives students a competitive edge when they interview for jobs or apply for graduate or professional school. The SAC is something MSUM is proud to support."*

Dr. Tim Borchers  
Interim Dean of Arts and Humanities

*"It's one thing to have knowledge. The Student Academic Conference shows you know what to do with knowledge."*

Dr. Jean Sando  
Associate Vice President for Academic Affairs  
Dean of General Education

*"Every student at MSU Moorhead should take the time to experience the Student Academic Conference, whether it is through presenting to their peers, having a poster or attending. SAC is an event on campus which has something for everyone to enjoy and learn."*

Rose Bakke  
Director of Prospect Research, Alumni

*"Former students who have participated in the SAC tell me this experience gave them the confidence and many tools necessary for success in the workplace."*

Dr. Oscar Flores-Ibarra  
Professor, Economics

*"Last spring my desktop publishing class enjoyed producing a newsletter for the Student Academic Conference; this year my history of American mass communications students will present papers at the conference. Minnesota's landscape is dormant in winter but not the minds of MSUM students."*

Dr. Mark Strand  
Chair, Department of Mass Communications



Summer Registration begins March 9. Sign up early to reserve your spot.

# Summer @ MSUM

## It's never been better!

**MSUM** announces its **NEW & IMPROVED** Summer Semester to meet the needs of more students.

- **More affordable!** A flat rate per credit reduces fees for most students.
- **Expanded course offerings.** More Dragon Core classes will be offered & liberal studies courses will be offered for the last time.
- **Flexible sessions.** Most classes meet for 3, 4 or 5 weeks; some are 6 or 8 weeks.
- **Start early.** Summer Semester runs May 18-July 24.
- **Work-study available** for many students taking 6+ credits.
- **Enjoy summer @ MSUM.** Fourth of July, The Straw Hat Players, College for Kids, sport camps and more!

**SIGN UP ONLINE:** [WWW.MNSTATE.EDU/SUMMER](http://WWW.MNSTATE.EDU/SUMMER)



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Prof. Halford's *Human Nature as the Psychologist Sees It* course

For further information,  
please email [honors@mnstate.edu](mailto:honors@mnstate.edu)  
or visit [www.mnstate.edu/honors](http://www.mnstate.edu/honors)

## Purpose

The purpose of the Student Academic Conference is to showcase the work and talent of MSUM students through presentations, posters and creative works at a one-day conference held annually at MSUM in April in the Comstock Memorial Union. All students are encouraged to submit presentation applications. We strive to accommodate all students who wish to be presenters. Parents, friends, prospective students, alumni, employers and the university community are welcome to attend the conference to witness the excitement of intellectual exchanges among our students.

## Sponsors

This conference exists because of the work of the entire university community, both in terms of financial and moral support. Supporters include the following: Strategic Grant Initiatives Fund, President's Office, Academic Affairs, Student Affairs, Administrative Affairs, Alumni Foundation, Inter Faculty Organization, MSUAASF, AFSCME, Student Senate, Campus Activities Board, Student Activities Budget Committee and Sodexho Services.

[www.mnstate.edu/acadconf](http://www.mnstate.edu/acadconf)

The MSUM Honors Program provides excellent teaching, mentorship, and long-term intellectual development to academically advanced students seeking an interdisciplinary liberal arts program. Emphasizing the development of the student's unique world view and intellectual potential, the program focuses the student's academic talent through small classes that motivate thinking across disciplines.

## Benefits of Honors Program

- Small class sizes
- Individualized mentoring with faculty Honors Mentor
- Extra-curricular activates designed for Honors students
- Interdisciplinary and integrated general education experience
- Greater marketability at graduation
- Requirements for Honors Program fulfill Dragon Core

# How the Conference got Started

## Conference Highlights

2009	325 Presentations / 585 Presenters
2008	258 Presentations / 436 Presenters
2007	208 Presentations / 398 Presenters
2006	233 Presentations / 341 Presenters
2005	184 Presentations / 317 Presenters
2004	139 Presentations / 253 Presenters
2003	156 Presentations / 258 Presenters
2002	151 Presentations / 234 Presenters
2001	133 Presentations / 241 Presenters
2000	139 Presentations / 218 Presenters
1999	107 Presentations / 170 Presenters



## THE ORIGINS OF MSUM'S STUDENT ACADEMIC CONFERENCE

*By: Paul Kramer and Brian M. Card*

Minnesota State University Moorhead's Student Academic Conference provides student researchers from each of its four colleges with the opportunity to present their work to faculty, administration, peers, and the general public in a formal academic setting. The Conference has grown exponentially over the past eight years to become one of MSUM's most eagerly anticipated annual events.

The Conference was conceived in 1998 through the collaborative efforts of Political Science professor, Andrew Conteh, and his then student-assistant, Ryan Sylvester, who envisioned a forum for students to present original research that would reflect the intellectual vibrancy of the MSUM community. As the format of the proposed Conference took shape, Dr. Conteh and Ryan jointly advocated its relevance to the University's top administrators who expressed both excitement and support for the concept. The enthusiastic participation of both faculty and administration has been a hallmark of the Conference since its inception and remains perhaps its most obvious source of continued success.

Traditionally, the Conference begins with a luncheon held in honor of its presenters, headlined by a keynote speaker address delivered by an MSUM alumnus. The speaker is chosen by the Conference's faculty advisory committee with the goal of identifying MSUM "success stories" representing the multiple disciplines and career orientations offered at the institution. As part of the presentation, current MSUM students are chosen as panelists who respond to the keynote speaker's address and present their own personal anecdotes regarding their individual research experiences.

Following the luncheon, students showcase their work in panel discussions, workshops, multimedia presentations, displays and demonstrations throughout the expanse of the Comstock Memorial Union. The Conference's ever-increasing popularity among students has necessitated moving some of the presentations to Livingston Library in order to accommodate all those who want to share their academic work with their community.

The conference organizers remain committed to encouraging a multi-disciplinary approach to research projects, allowing visitors and guests to explore a panoply of different efforts showing the breadth of opportunities presented in the campus environment. Most of the presentations are limited to twenty minute time periods in order to allow the conference attendees to gain a wide variety of perspectives over the course of the afternoon's events. The Conference ends with a brief reception that allows participants and attendees to relax, unwind and reflect upon a day of academic exchanges.

Without the support of many different campus organizations and financial contributors including faculty, administrators, support staff and students too numerous to mention individually, the Conference would cease to exist. The organizer's of this year's event also wish to note the expansion of support from the Fargo-Moorhead community at large as the program expands and reinvents itself over time. As soon as this year's Conference ends, planning for the next will begin, with new lessons learned and optimism that each succeeding year will bring a bigger and better experience for the MSUM community.

Minnesota State University Moorhead is committed to a policy of nondiscrimination in employment & education opportunity and is a member of the Minnesota State Colleges & Universities System. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law. Inquiries regarding compliance should be referred to the Affirmative Action Officer/Title IX Coordinator, Owens 214B, 218.477.2229 (Voice). This information will be made available in alternate format, such as Braille, large print or audio cassette tape, upon request by contacting Disability Services at 218.477.2131 (voice) or 1.800.627.3529 (MRS/TTY).

## **Letter from the Chancellor**

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Dear Minnesota State University Moorhead Students, Colleagues, and Friends:

The 2009 Annual Student Academic Conference marks the eleventh anniversary of the university's celebration of student scholarship and achievement. I am pleased to join with President Edna Szymanski as she recognizes this significant undertaking and the work of Dr. Andrew Conteh, the university's supporting faculty and staff, and the participating students.

Minnesota State University Moorhead has set the pace and been the model for research by students across the Minnesota State Colleges and Universities system. More important, however, the Student Academic Conference features the enormous talent which our student learners bring to the system.

I believe that intellect and curiosity are a partnership that yields scholarship at its best. The university is among few places that the magic of inquiry is encouraged. Here, the student is challenged to question and to think. It is a wonderful place, and the Student Academic Conference is a forum to see that magic come to life.

On behalf of the Board of Trustees and all of us in your Office of the chancellor, best wishes for success on this 11th Annual Student Academic Conference.

Sincerely,

A handwritten signature in cursive script that reads "James H. McCormick".

James H. McCormick

## **Letter from the President**

---



Greetings:

Since 1998 the Student Academic Conference has offered an outlet for student research and creative work. Over the years thousands of students shared their knowledge in an environment that promoted inquiring minds and faculty mentoring.

MSU Moorhead Professor Andrew Conteh loves a great idea and he was tireless in his advocacy for this conference. From the beginning, it provided opportunities for collaborations between students and their faculty mentors. Mentoring is central to our teaching and learning activities.

Presenting one's work beyond the classroom promotes student growth and development. The conference provides students the challenge and the pleasure of communicating to an interested audience—and important feedback in critiques of their intellectual products. Defending ideas in a supportive and analytical community of student and faculty scholars is a wonderful opportunity for personal professional growth.

You will encounter intellectual curiosity and creativity. You will learn about new ideas, fresh approaches, and unique methods of problem-solving. Most importantly, you will witness the next generation of scholars and leaders.

Congratulations to the student participants, faculty mentors, and conference planners who've worked to prepare for a conference that celebrates the mission of our University "to foster excellence in teaching and learning." A very good idea is now a wonderful tradition!

A handwritten signature in cursive script that reads "Edna Moore Szymanski".

President

## **Letter from the Vice President of Academic Affairs**

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### Conference Participants:

Designed to provide students from across academic disciplines with an opportunity to present the results of their scholarship, research, and creative activity the Student Academic Conference, since its inception in 1998, has become the hallmark of spring semester at Minnesota State University Moorhead. The Conference showcases research by students and faculty mentors at MSUM and provides an opportunity to involve the campus community in this learning and discovery as well.

Through processes of research and discovery to the application of that knowledge, students are growing as active scholars beyond the learning acquired in the classroom setting. In celebrating the work of students and their faculty mentors, we are also applauding the innovative partnerships between students and faculty. I hope you will attend as many presentations as possible and embrace and engage our students in conversation regarding their scholarly or creative work.

Year after year the Student Academic Conference has been a stunning success and this year should be no different!

Yours truly,

A handwritten signature in cursive script that reads "Bette G. Midgarden".

Bette G. Midgarden  
Vice President

## **Letter from the Vice President of Student Affairs**

---



Welcome to this year's Student Academic Conference. This event has become one of the premier events of the year allowing students to participate in an academic event that is unique, rewarding and challenging. Having been a session chair for many of the past conferences, I have observed firsthand the hard work, dedication and research that are required of the participants. I've always come away with new perspectives and items of interest that have been part of the presentation or later conversation. I have especially enjoyed those presentations that blend the research and classroom experiences with those activities that are learning experiences outside of the classroom. Making connections between one's academic endeavor and other activities including leadership opportunities within student organizations, student government, athletics, residence life or a unique employment experience can lead to a truly enriching experience.

Thank you to everyone that helps to make the Student Academic Conference a very special day, including those who are participating, those coordinating the event and the faculty and staff who support the participants and event in so many ways.

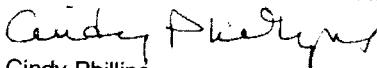
A handwritten signature in cursive script that reads "Warren Wiese".

Warren Wiese  
Vice President of Student Affairs

## **Letter from the President of IFO**

The Faculty Association at MSUM Moorhead is pleased to acknowledge the work of our member, Andrew Conteh, who created and is the inspiration behind this event. We congratulate him and all who have worked to make this 11th Annual Conference possible.

This event has grown in scope over the years and has become a signature event for our University. It is evidence of our dedication to undergraduate education and the importance of student research. Our faculty take pride in working with students in research and preparation of their presentations. We hope all who attend will learn and be impressed by the quality of our students' work and the efforts of the faculty in mentoring them.



Cindy Phillips

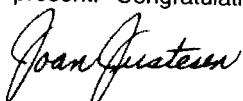
President, MSUM Faculty Association

## **Letter from the Executive Vice President of Alumni Foundation**

Greetings!

When I was completing a Bachelors of Science in Nursing from MSUM in the early 80's, we did a senior preceptorship. For that preceptorship, I researched the new payment system for healthcare which Congress had just passed, the Diagnosis Related Groupings (DRG's) payment scheme for Medicare. As a result of that research, I created a position description for a DRG coordinator in my place of employment which was approved and hired into, and also taught many different professional groups about the new payment system. I was able to hypothesize certain scenarios for how the payments might be calculated and test the hypotheses. Throughout my career the research principles I learned in my undergraduate education were helpful and I applied them daily in my practice.

The Student Academic Conference is a great opportunity for students to showcase their research projects and to learn from their peers. We at the MSUM Alumni Foundation are pleased to honor this hard work and we salute all the students who present. Congratulations!



Joan Justesen

Vice President, Alumni Foundation

## **Letter from the President of the Student Senate**

Conference Participants,

On behalf of the Minnesota State University Moorhead Students I would like to welcome everyone to this year's Student Academic Conference. As the representative body of and for the students, the Senate supports this avenue for student involvement. Over the years this event has become an integral feature of the University community. This conference provides many opportunities for students to participate, from visual presentations to panel discussions. There is something for anyone who has interest in taking their academics above and beyond the classroom. In addition, the diverse amount of information one can gather just by attending this event makes it worthwhile for each and every participant.

The focus on academic participation on all levels is the most important element in making the Student Academic Conference a success. Be it the student on the various planning committees, or the presentations given at the conference, every level of the process is largely student oriented. The opportunities it provides for students to get involved on the campus, as well as the useful research and presentation experience it gives for future careers and education is invaluable. In this regard there is nothing that can compare to the meaningfulness of this occasion.

None of this would be possible without Professor Andrew Conteh's dedication to making this affair the intellectual environment it has become. Who would have thought eleven years ago his dream would have grown into the premier venue for student academic research and presentation for the campus community? His undying dedication to student learning and development has allowed for the Student Academic Conference to reach the level it has and deserves the gratitude of all those who participate in and benefit from it.

Regardless of your interests or focus of study at this university, the Student Academic Conference is worth the time and effort that goes into it. For the true essence of this experience is best summed by the following Latin Proverb; "By learning you will teach, by teaching you will learn."

Sincerely,

Laura Zeiher  
President, Student Senate

# Conference Schedule

TUESDAY, APRIL 21, 2009

7:30 A.M.

Poster Set-Up—Registration/  
Information Table — CMU Main Lounge

9:30 A.M.

Presentation Session 1 and Poster  
Session 1 —

Various CMU Rooms and  
Poster Display Area

10:50 A.M.

Break

11:00 A.M.

Seating for the Luncheon —  
CMU Ballroom

11:15 A.M.

Luncheon Starts (Welcome and  
Introductions)—CMU Ballroom

12:00 P.M.

Keynote Speaker — CMU Ballroom

Ms. Renee Stromme

*Executive Director of North Dakota  
Women's Network*

12:25 P.M.

Student Panelists — CMU Ballroom

- College of Arts and Humanities representative will be Tyler Michaels.
- College of Business and Industry representative will be Alex Brandt.
- College of Education and Human Services representative will be Tessa Torgeson.
- College of Social and Natural Science representative will be Justin Norris.

1:00 P.M.

Presentation Session 2 and Poster  
Session 2 —

Various CMU Rooms and  
Poster Display Area

2:20 P.M.

Break

2:30 P.M.

Presentation Session 3 and Poster  
Session 3 —

Various CMU Rooms and  
Poster Display Area

4:00 P.M.

Closing Ceremony —

CMU Main Lounge  
Refreshments sponsored by  
Counseling and Personal Growth  
Center.

# Conference Organizers and Steering Committee

## Conference Coordinator



**Dr. Andrew Conteh**

*Professor of Political Science*

## Conference Organizers

**Samantha Daugherty**

*Spanish Department*



**Justin Voels**

*Computer Science*



**Kelsey Reheme**

*Criminal Justice*



## PROGRAM COMMITTEE

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Samm Daugherty

## How to Get Involved?

If you are interested in being a part of the steering committee for the Student Academic Conference next year, a conference volunteer, or interested in being a student organizer, please send an e-mail expressing your interest to [acconf@mnstate.edu](mailto:acconf@mnstate.edu)

## Past Keynote Speakers

- 2008 Karen Branden, Ph.D., Sociology
- 2007 Anita Sue Bement Education
- 2006 Tammy J. Miller, CPA, Business
- 2005 Todd Marvin Koel, Ph.D, Biology
- 2004 Thomas C. Proehl, Theatre
- 2003 Dr. Tom Sawyer, Chemistry
- 2002 Kimberly Maluski Sarte, Econ
- 2001 Dr. Paul Spies, Education
- 2000 Dr. Janet Anderson, Education
- 1999 Dr. Shawn Dunkirk, Chemistry

# Keynote Speaker

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Each year an MSUM alumnus is selected to deliver the keynote address to conference attendants. This person is selected by the conference steering committee following a review of nominations received from members of the MSUM campus community. This years Keynote Speaker is:



## Renee Stromme

Renee was born and raised in Stanton, ND. She graduated college from Moorhead State University with a degree in English and Women's Studies. After college, she moved to the Phoenix, AZ metropolitan area, and worked in a domestic violence shelter and domestic violence legal clinic. Feeling her roots urging her back home, she returned to North Dakota and gained employment with the ND Council on Abused Women's Services (NDCAWS). She worked at NDCAWS for six years organizing college communities to reduce violence against women on campus. Renee now serves as the Executive Director of the North Dakota Women's Network.

Renee has been active in community organizing as a volunteer for numerous groups working on issues such as women's rights, the environment, political involvement, and peace. Her hobbies include yoga, reading, and kayaking.

**Title of Presentation:** Building on Passion: How my Academics taught me to be an Activist

**Presentation Abstract:** Renee came from shy roots, but always felt the desire to make positive changes in the world. While at MSU-Moorhead (or Moorhead State University as it was known then), Renee started school with the idea of just "getting that degree" with the hopes of just figuring life's path out later. Of course, the education broadened her understanding of women's issues, and many other aspects of oppressions. Walking away with that diploma in hand Renee found a unique path that allowed her to use all of her degree to find her calling and truly work to impact society positively while combating her natural shyness. Renee will share the path she took, how schooling forged that path, and the serendipity plays in it all.

# Student Panelists

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Each year four student panelists are selected to respond to the keynote address. These four students represent the four academic divisions of the university: Arts & Humanities, Social & Natural Sciences, Business & Industry and Education & Human Services. These students are selected by the dean of each academic division following a review of nominations received from members of the MSUM campus Community. This year's panelists include the following:

### TYLER MICHAELS – College of Arts and Humanities

Tyler Michaels is a junior at MSUM majoring in Theatre Arts with an emphasis in acting, directing, and musical theatre. He has been seen frequently on the Hansen and Gaede stages playing such roles as Jesus in *Jesus Christ Superstar*, Sweeney Todd in *Sweeney Todd: The Demon Barber of Fleet Street*, and Schroeder in *You're a Good Man Charlie Brown*. Tyler participates in the KCACTF thearte festival every year, competing for scholarships and honors in theatre. This past year Tyler placed fourth in the Irene Ryan scholarship completion and won best musical theatre performance in a semi-final round. Tyler has also received talent scholarships through the theatre department. Tyler is an active member of Blackfriars and is the president of Performance Avenue, both of which are student groups in the theatre department.

### ALEX BRANDT – College of Business and Industry

Alex Brandt is a senior majoring in Physics and Computer Science, minoring in Mathematics. As a leader and member of the Society of Physics Students and the Association for Computing Machinery, Alex is an active MSUM student who works to support other students at MSUM. Alex is currently a representative on the College of Social and Natural Sciences Dean advisory board. Having worked on physics research at Oak Ridge National Laboratories, Alex will be returning to the research environment this summer by working for Raytheon as a Cyber Warfare Architect. Alex is planning on continuing his work at Raytheon after his graduation next spring. He also plans on attending graduate school to obtain a M.S. in Cognitive Science and a Ph.D. in Neuroscience.

### TESSA TORGESON – College of Education and Human Services

Tessa Torgeson is a senior double majoring in psychology and social work. Her social work interests are social justice and equality of race, gender, sexual orientation, and ability. She advocates for anti-racism as treasurer of Students Training Our Campuses against Racism (STOCAR). She learned about political activism and community leadership as a participant of NEW Leadership Institute. Tessa has worked with people with disabilities for two and a half years at Creative Care with Reaching Independence in Moorhead. Tessa is recipient of the Richard and Patricia DuBord Endowed Scholarship for social work and on an advisory panel for the Social Work department. Tessa will intern at Fargo Housing Authority in Fall 2009. Following graduation in Fall 2009, Tessa hopes to pursue a Master of Social Work degree.

### JUSTIN NORRIS – College of Social and Natural Sciences

Justin Norris is a junior majoring in Political Science. He is currently a member of the College Democrats, the Campus Free Thought Alliance, the Student Senate, and is a member of the Student Advisory Board for the College of Social and Natural Sciences. During his tenure on the Student Senate he has been chair of both the Committee on Committees and The Legislative and Internal Affairs Committee. In conjunction with his tenure in student government Mr. Norris has served on the Student Conduct Committee and the Sustainable Campus Initiative Committee. Last Spring Mr. Norris was inducted into Pi Sigma Alpha, the national honor society for political science and hopes to attend Graduate school following his graduation from MSUM in May 2010.

# Juried Student Art Exhibition

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The Juried Student Art Exhibition is an annual event open to all registered art majors during the spring semester at MSUM. This year's exhibition will be on display till Wednesday, April 22 in the gallery, located in the Roland Dille Center for the Arts. The juror for the 2009 Juried Art Exhibition at MSUM this year is George Bowes, a ceramic artist from Galveston, Texas. He has received multiple individual arts fellowships from the Ohio Arts Council and an Arts Midwest/NEA Regional Visual Arts Fellowship Award. His works reside in public and private collections including the Renwick Gallery in Washington D.C. and the Arts Gallery of Nova Scotia. Mr. Bowes selected 72 pieces of art work for the exhibition that include: graphic design, ceramics, painting, drawing, photography, sculpture and printmaking.

Kayla Adams	Lauren Hankerson	Anthony Molzahn	Sarah Tiedeman
Laura Ammon	Danielle Elise Heschke	Bryan Murphy	Elizabeth Tossey
Antony Anderson	Jescia Hoffman	Erin Rose Myers	Cody Trautner
John Beaudine	Morgan Hoyt	Alan Ochocki	David Valdez
Andy Bissonnette	Sarah Hultin	Danielle Olson	Jennifer Vincent
Chris Boedigheimer	Jed Jensen	Elise Parsley	Cheryl Wald
Lewis Burris	Bridget Kitkok	Amber Parsons	McKenzie Wallner
Bethany Carlson	Rachel Klimpel	Jill Peterson	Tim Wegscherd
Chelsey Dahlstrom	Noah Kupcho	Joshua Remer	Mark Wickline
Adonia Daigle	Lacey Kvamme	Sandy Scherpung	Alana Wilhelm
Jacob Drebelbis	Chelsea Lee	Stephanie Sequin	Dustin Young
Megan Eckman	Emi Maezawa	Owen Sneddon	Laura Zeiher
Alex Ehlen	Erin Malkowski	Matthew Sprung	Marie Zeller
Hillary Ellison	Daniel Marsh	Carl Stewart	
Kellie Hames	David Mehrer	Lindsay Stokes	

## Special Thanks To:

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The Programs Committee, Logistics Committee, Faculty and Student Coordinators would like to thank all of our volunteers! This conference would not be possible without the help of our volunteer session chairs, registration table workers and our room monitors.

### Session Chairs

Tim Harms	Barb Headrick	Annette Morrow	Michelle Malott
Adam Goyt	Larry Schwartz	Ruth Lumb	Stephen Hamrick
Sheri Erickson	Justin James	Elizabeth Kirchoff	Richard Lahti
Ellen Hill	Zachary Machunda	Linda Winkler	Dawn Hammerschmidt
Mary O'Reilly-Seim	Travis Dolence	Jean Sando	Michelle Syltie
Warren Wiese	Raymond Rea	Karl Leonard	James Danielson
Linda Fuselier	Britteny Goodman	Gwen Johanson	Derick Dalhouse
Dennis Jacobs	Magdalene Chalikia	Dan McEwen	Janet Haak
Carol Grimm	Benjamin Smith	Paul Kramer	
Diane Wolter	Geri Stowman	Nathan Clarke	

### Registration Table

Kathy Schmidt	Shelly Gaza	Deb Lewis	Deborah Jenkins
TJ Hansen	Betty Gunderson	Keri Desutter	Denise Peck
Mary O'Reilly-Seim	Dianne Schmidt	Barbara Rath	
Sara Engelmeyer	Becky Boyle Jones	Belle Nelson	

### Room Monitors

TJ Hansen	Nancy Paul	Shelly Gaza
Bruce Sykes	Lynn Peterson	Jane Bergland

**Gaawaabaabikanikaag Gabegikendaasowigamig**  
**WHITE EARTH TRIBAL AND COMMUNITY COLLEGE**  
**MAHNOMEN, MINNESOTA**



Minnesota State University Moorhead and the Student Academic Conference welcomes White Earth Tribal and Community College to the 11<sup>th</sup> Annual SAC. The 2009 conference includes presentations from WETCC which are shown below.

**Timeline of Native North America**

This presentation shall include laws, treaties, executive orders, policies and statutes that pertain to the 562 present Native Nations in the United States. This time line shall chronicle dates and short narratives explaining each date from Pre-contact to the present.

**STUDENT:** Dawn Deveau

**ADVISOR:** Andrew Favorite, Native Studies

**ROOM:** CMU Main Lounge

**American Indian Education**

What is American Indian Education and why is it important to everyone? How has it been redefined over time? How have Indigenous languages and cultures been impacted? What is self-determination and why is it so important? This group poster presentation answers these questions and addresses the current developments in Indigenous communities designed to address the devastating effects of government policies, educational systems, and classroom practices used to assimilate Indigenous peoples. Mission and government boarding schools, nationally, in Minnesota and on the White Earth Reservation will be emphasized.

**STUDENTS:** Misty Bellecourt , Theresa Blue, Naomi Deschampe, Jessica Goodwin, Valerie Goodwin, Krystal Tejohn

**ADVISOR:** Karen Goulet, Art and Education

**ROOM:** CMU Main Lounge

**An Indigenous Perspective of Multicultural America**

As students who are Native American, our perspective of historical events and our relationships with other ethnic groups are unique. Through an examination of the visual lens of the media, historical documents, and personal narratives we will examine our ongoing contact with other groups. We will touch upon reservations, WW II internment camps, immigration laws, and other government policies that have impacted Indigenous communities and the history of the United States.

**STUDENTS:** Misty Bellecourt, Anne Ortley, Tiffany Thompson

**ADVISOR:** Karen Goulet, Art and Education

**ROOM:** CMU Main Lounge

**US History**

An overview of the history of land ownership on the White Earth Reservation. Established in 1867 the 796,000 acres (36 square townships) comprising the Reservation were originally set aside (reserved) for the Mississippi Band of Chippewas. By 1910 about 80% of the original land that comprised the Reservation had passed to Non-Indian hands. How did this happen? Is it different today? How is Blood Quantum related to land loss? and what is meant by an "open" Reservation, as opposed to a "closed" Reservation?

**STUDENTS:** Valerie Goodwin, Jessica Goodwin, Lori Hill, Naome Deschampe, Douglas Fairbanks

**ADVISOR:** David DeGroat, History

**ROOM:** CMU 208

**TIME:** Session 3, 3:30PM

# Schedule by Room

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## • CMU

### Session 1

9:30	3	Guidelines for Managing Patients with Supraventricular Arrhythmias.
9:30	18	International joint ventures
9:30	24	The World of Film Censorship: And Its Ratings System.
9:30	30	Zoroastrianism
9:30	33	Balance of Payments
9:30	36	Bulimia Nervosa and it's Relationship with E/BD
9:30	40	Female Beauty: The Distorted View Media Gives Society
9:30	44	Synthesis and Reactions of Bromoalkenes
9:30	51	Deep Vein Thrombosis and Compression Stockings
9:30	55	Reaction of sodium cyanoborohydride and semicarbazide hydrochloride in ionic liquids II
9:30	61	The Prevalence of Obesity in U.S. Adults
9:30	64	Alcohol Abuse
9:30	71	The effects of test anxiety and noise interference on the working memory system
9:30	87	Honoring the Spirits Haitian Vodou Rituals
9:30	93	Responding Rapidly: Saving Lives in Emergent Situations
9:30	97	Alternatives To Restraint Use in the Psychiatric Setting
9:30	100	Obesity: Genetic or Socioeconomic?
9:30	101	Commotio Cordis: Cardiac Concussion
9:30	110	Sociological View of Family Origin and HIV/AIDS
9:30	117	Binge Drinking and Alcoholism Among College Students
9:30	120	The Key to Heart Health through Your Mouth
9:30	124	The Social Network of AIDS in U.S. Society
9:30	130	Intermittent Explosive Disorder
9:30	139	Energy Drinks Hype or Harm?
9:30	142	Kitsune And Inari: The Study Of The Japanese Fox Deity In Inari And Other Japanese Religions
9:30	146	Men's life expectancy compared to Women's life expectancy.
9:30	156	Apple at MSUM Education Discount
9:30	162	Evaluation of the Chiral Relay Concept Using Pyrazolidinone Ring Systems
9:30	166	Enhancing Comprehension through Colored Diagrams
9:30	171	Self Balancing Sateboard
9:30	177	Healthy Aging
9:30	182	"The assessment of DNA damage in zebrafish using a comet assay" - Theresa Floer
9:30	187	The Comet Assay for Visualizing DNA Damage
9:30	199	Overall Happiness in Older Adults
9:30	201	Electrical Capacitance: A Different Perspective on Subsurface Mapping
9:30	202	Do temperature and stoichiometry interact to explain growth rates in an aquatic invertebrate?
9:30	209	Ancient Cultural and Religious Influences on The Modern Chinese Language.
9:30	217	MRSA
9:30	233	The Use of VO2 Max and Hydrostatic Weighing for Optimal Participant Training
9:30	241	Different types of shock: septic, anaphylactic, and hypovolemic.
9:30	242	Chronic Paraplegia is Associated with Abnormal Cardiac Autonomic Balance, Changes in Heart Rate Variability, and Changes in Spontaneous Baroreflex Sensitivity and Gain in Sprague Dawley Rats.
9:30	248	Autism
9:30	251	The Consequence of the Differences between Men and Women when Utilizing Healthcare
9:30	256	Title: Young convict cichlids ( <i>Amatitlania siquia</i> ) use visual information to update olfactory homing cues that occur at a certain time in their development.
9:30	268	EFFECTS OF TEMPERATURE ON ZEBRAFISH CHEMICAL CUES
9:30	273	Shintoism's Interaction with Buddhism in Japan
9:30	278	F-M Community Center
9:30	281	DNA fingerprinting with ISSR-PCR
9:30	285	Premier Contracting L.L.C Capstone Presentaion
9:30	290	The Sociological Explanation of Photography
9:30	302	The Relationship between the Morality of Teens Engaging in Sex and Providing Birth Control Access, in Relation to Age
9:30	309	"Abandoned Farmhouses of Polk County: A study"
9:30	312	Gamma Ray Burst Afterglow Imaging
9:30	313	Stay Fit Fitness Center
9:30	319	SPATIAL TRENDS IN CONODONT DISTRIBUTION PATTERNS AND TAPHONOMY IN KEY STRATIGRAPHIC SURFACES AND HORIZONS THAT DELINEATE GENETIC UNITS WITHIN THE IOLA LIMESTONE: UPPER PENNSYLVANIAN OF KANSAS AND IOWA
9:30	320	China Business Trip
9:30	326	the Bushido
9:30	329	Australian Ecotopia: Visions for a Future Sustainable Society
9:30	333	SAMURAI WARRIORS
9:30	339	The Status of Women in Afghanistan
9:30	344	The Status of Women in The USA: Hispanic Americans

### Session 2

1:00	4	The use of morphine with patients that are at the end of their life who are suffering from dyspnea
1:00	15	Labor and Delivery Nursing
1:00	19	Obstetrical Nursing
1:00	26	Reactive Attachment Disorder in todays Society
1:00	31	Evaluating the Consistency of the Word Fluency Performance for a Single Subject With Executive Dysfunction

Numbers correspond with abstract listings beginning on page 31

- 1:00 34 The Perception of Beauty when Facial Features are Highlighted with Cosmetics  
 1:00 37 Clinical Risk: Infection Control in Audiology  
 1:00 41 Development of a high throughput screening of cytoskeletal drugs for effects on the kinetics of mitochondrial DNA replication  
 1:00 47 Children and Youth with Post-Traumatic Stress Disorders  
 1:00 52 Trauma  
 1:00 56 Respiratory Syncytial Virus  
 1:00 62 Go Bananas For Fair Trade  
 1:00 65 Organic-Dye Sensitized Solar Cells  
 1:00 72 Analysis of Sounds  
 1:00 77 Sexually Transmitted Diseases  
 1:00 78 Assessment in Developmental Delay for Adaptive Skills  
 1:00 88 Women Empowerment and Poverty Reduction - Focus on South Asia  
 1:00 94 The Other Hangover  
 1:00 99 Functional Analysis of Feature 1 of Biesterfeldt (32RM1)  
 1:00 107 Tibetan music and dance in a religious context  
 1:00 118 Plants in Witchcraft, Magic and Ritual  
 1:00 121 Flintknapping as Experimental Archaeology and as Art  
 1:00 125 Gang/Gang Activity and E/BD  
 1:00 132 Stone Tool Technology of a Historic American Indian Site  
 1:00 143 Manga Religion: Religion expressed within a graphic context of Japanese Manga  
 1:00 152 Investigation of the sites of phosphorylation of cTNHE1-His by Rock  
 1:00 157 Birth Control: Beyond pills and condoms  
 1:00 158 The Feasibility of Integrated Care: Does it Work?  
 1:00 163 Updated Survey of Wild Turkey (*Meleagris gallopavo*) distribution in Cass (ND) and Clay (MN) Counties  
 1:00 167 The Association Between Mental Illness and Income  
 1:00 172 Chemical Imbalances in the Brain Relating to Socioeconomic Index  
 1:00 179 Microwear Patterns on Lithic Implements From the Sprunk Site  
 1:00 185 Statistical Analysis of the Student Academic Conference  
 1:00 186 The onset of systemic acquired resistance in *Cucumis sativus*: a study of environmentally induced changes in fundamental means of energy transformation  
 1:00 190 HPV in Fargo-Moorhead  
 1:00 193 Investigation of the role of ADP concentration on PPDK-RP protein phosphatase activity.  
 1:00 203 Happiness and Marriage: Does it matter after all?  
 1:00 215 Education and its affects on Health risks; focusing on Breast Cancer and self Exams.  
 1:00 224 MEASURING FISH PERSONALITY: THE SHY-BOLD CONTINUUM IN ZEBRA FISH  
 1:00 235 How healthy are my Leaves? Using the Fluorometer to asses the Photosynthetic health of leaves.  
 1:00 249 Autism: Challenges and Perceptions  
 1:00 252 Health Lungs Lead to Healthy Lives  
 1:00 257 Alcoholism and Race  
 1:00 264 Policing The Internet  
 1:00 269 Additional Experiments Suggesting that Neutral Nickel is Soluble in Silicate Melts at Low Concentration.  
 1:00 276 Red River Valley Science Museum  
 1:00 279 CM CAPSTONE PROJECT BLUE RIBBON CONSTRUCTION  
 1:00 283 cm 496 capstone experience-Brevjo Construction-Northtown Complex  
 1:00 287 The Pursuit of Altered States of Consciousness Through the Use of Indigenous Psychoactive Drugs  
 1:00 294 Literacy Instruction in Early Childhood Special Education: Implications for Students Who Use Augmentative and Alternative Communication (AAC)  
 1:00 307 The Relationship among Income, Degree, and Health status.  
 1:00 310 A Cup with the Tea Masters: A historical look at Japanese pottery and how it influenced American ceramics today.  
 1:00 324 "Digitizing Patient Health Records- Pros and Cons"  
 1:00 327 Ecotopia in the Shire: Visions for a Future Sustainable Society  
 1:00 330 Caribbean Ecotopia: Visions for a Future Sustainable Society  
 1:00 334 The effects of the bomb that was dropped in Hiroshima and Nagasaki by United States of America.  
 1:00 342 The Status of Women in Turkey  
 1:00 347 Nursing Interventions for Fall Prevention

### Session 3

- 2:30 5 Psychological Disorders Relative To Sport  
 2:30 16 Nursing in the Developing Country of Nicaragua  
 2:30 21 Benefits of Taking a "Time-out" in the Operating Room  
 2:30 28 Diabetes Presentation  
 2:30 32 Analysis of Gender Roles in the Latino Community  
 2:30 35 The Influence of a Multicultural Class on Student's Attitudes  
 2:30 39 Have You Had the Giggles Lately? Humor and It's Effects on Well-Being  
 2:30 43 How About Some Pi?  
 2:30 49 Septic Shock and Multiple Organ Dysfunction Syndrome  
 2:30 54 Measuring morphological changes in a piezoelectric crystal  
 2:30 59 The Study of Child Abuse  
 2:30 63 Town House: A Glimpse into the Future of Energy Efficiency  
 2:30 67 Obsessive Compulsive Disorder  
 2:30 88 The Belief in the Paranormal  
 2:30 92 Study Abroad in Japan! Informational Website  
 2:30 96 Trade Impacts at the Biesterfeldt Site: An examination of metal artifacts  
 2:30 108 Pharmacological Treatments for Children with Behavioral Disorders and the Nursing Implications  
 2:30 112 Long-Term Population Trends in Painted Turtles (*Chrysemys picta bellii*) in Clay County, MN  
 2:30 113 Emotional/Behavioral Disorders and how they relate to Attention Deficit Hyperactivity Disorders  
 2:30 119 The abiotic induction of systemic acquired resistance (SAR) in *Cucumis sativus* alters photosynthetic productivity and cell wall structure: Evidence for interactions between the plant and its environment.  
 2:30 123 Gamma Ray Spectroscopy

*Numbers correspond with abstract listings beginning on page 31*

2:30	126	Exploring X-rays
2:30	137	Building and testing a temperature controller for a low temperature NMR experiment.
2:30	140	Otaku Health Risks
2:30	141	Men and Women View Premarital Sex Differently
2:30	145	The Anishinnabe (Ojibway) Migration
2:30	153	The Impact on Health in Relation to Family Income.
2:30	160	Phenotypic Consequences of the Egg Number – Egg Size Trade off in Zebrafish ( <i>Danio rerio</i> )
2:30	164	Exploring reactions for the synthesis of chiral acyl pyrazolidinones for chiral relay studies.
2:30	169	Risk-sensitive information-gathering by zebrafish following release of chemical alarm cues
2:30	175	Awakening: Origins of Self-Consciousness
2:30	181	Controversy over ADHD
2:30	191	The Causes of Poor Mental Health in Young Adults
2:30	192	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 2: TESTING FOR POLAR VERSUS NON-POLAR COMPOUNDS
2:30	198	The Misunderstood: Communication Disorders and Emotional and Behavioral Disorders
2:30	208	The Effects of Television and Sedentary Lifestyles Have on Childhood Obesity.
2:30	216	Does Age Influence Divorce?
2:30	226	Maps! Maps! Maps! A Cultural Interpretation of Geophysical Images Generated from the Biesterfeldt Site.
2:30	240	Love Your Heart
2:30	244	The Obstetrics Nursing Role
2:30	250	Challenges and Perceptions of Autism
2:30	254	The Effects of Depression on School-Aged Students
2:30	261	Energy and our Environment: Building a zero energy house.
2:30	262	Net Zero Dormitory Complex...Living Off the Grid
2:30	265	Child Sexual Abuse
2:30	270	Systemic Acquired Resistance Responses in <i>Cucumis sativus</i>
2:30	277	Hard Rock Cafe
2:30	280	CM 496-Capstone Experience M.A.R. Construction Twelve Oaks Hotel and Resort
2:30	284	CM 496 Capstone project Carrel Barrel Restaurant
2:30	288	Religious Symbols
2:30	298	Primer optimization and use of RAPD markers to identify plant populations
2:30	308	SEQUENCE STRATIGRAPHY AND CONODONT PALEOECOLOGY OF THE LOWER DUPEROW FORMATION (UPPER DEVONIAN) IN WESTERN NORTH DAKOTA
2:30	315	REINTERPRETATION OF OBSERVED EFFECTS OF CO ON CRYSTALLIZATION IN SILICATE MELTS AT 1-ATMOSPHERE PRESSURE
2:30	328	European Ecotopia: Visions for a Future Sustainable Society
2:30	331	Midwestern Ecotopia: Visions for a Future Sustainable Society
2:30	335	Not Just Cartoons: Japanese Culture Inherent Within Anime and Manga
2:30	343	The Status of Women in The USA: Native American

• **CMU 101**

**Session 1**

9:30	103	Humor is a laughing matter
9:50	104	Gender differences on on-line communications
10:10	105	A Comparative Study of Short and Long-Term Memory in College Age Females and Males
10:30	106	What is a "Beautiful" Body?

**Session 2**

1:00	23	The History of Pixar Animation
1:20	46	Kiki Smith: Sculpture and Materials
1:40	70	Craft Education
2:00	189	Transforming One's Self : The Work of Lucas Samaras

**Session 3**

2:30	205	The Found Image in Contemporary Art
2:50	206	Women Displayed by Women; with an Emphasis on erotic Images
3:10	213	Offensive Art: objectives and censorship in art
3:30	228	Hussein Chalayan: fashion in the art world.

• **CMU 200B**

2:30	60	Prevalence of Lung Cancer Rates Due to Minnesota Smoking Ban
2:50	85	Economic Impact of Drug Prohibition
3:10	131	Multinational Enterprises and Working Capital Management
3:30	135	Quality Programming and Students with Emotional Behavioral Disabilities;Factors to consider.

• **CMU 200C**

2:30	148	Yen Carry Trade
2:50	58	Pandemic Preparedness: Influenza
3:10	66	Exploring Virtual Worlds
3:30	73	The Confucian Jews of Imperial China

• **CMU 200D**

2:30	98	The Economic Geography of the Netherlands in the Colonial Period
2:50	114	Hip-Hop and Masculinity
3:10	80	Legal Status of Burmese Refugees in Thailand
3:30	122	A Possible Correlation Between GnRH and Reproductive Pheromones in Female Zebrafish.

- **CMU 200E**

2:30	127	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 1: TESTING THE PROTEIN HYPOTHESIS
2:50	128	Japan's Attitudes Towards Homes For The Elderly
3:10	90	The Positive Side of Soft News: Personalization, Dramatization, and Infotainment
3:30	133	The Teaching of Evolution and Creationism in US Public High Schools

- **CMU 200F**

2:30	147	Comparison of Relationship Satisfaction in Real Life and Virtual Romantic Relationships: Is Second Life Really So Different From Real Life?
2:50	151	Civil-Rights Era African American Literature and Erik Erikson's Stages of Life-Span Development
3:10	17	STOCAR Persuasive Campaign

- **CMU 203**

**Session 1**

9:30	149	Goverment control of the Influenza outbreak of 1918
9:50	155	deforestation in the amazon rain forest
10:10	243	How environmental change can intensify the effects of natural disasters: Hurricane Katrina
10:30	301	The two great Conquistadors of the Americas.

**Session 2**

1:00	348	A Media Criticism of Comedy Central's South Park and the Ginger Kids
1:15	349	A Media Criticism of the NBC television show Friday Night Lights
1:30	350	A Media Criticism of the movie Crash
1:45	351	A Media Criticism of the NBC comedy television hit The Office
2:00	352	A Feminist and Media Criticism of the HBO hit series Sex and the City

**Session 3**

2:30	353	LBJ and the Beginning of the Age of Fear: A Media Criticism
2:45	354	America's Ignorance to Foreign Culture: A Cultural Criticism of Borat
3:00	355	Dramatism and the Kobe Bryant Rape Case
3:15	356	Motley Crue's "Red, White & Crue"
3:30	253	Mechanical Humanity and Human Apathy in WALL-E: A Rhetorical Criticism

- **CMU 204**

**Session 1**

9:30	195	Panel on Shakespeare
9:50	57	The Press & The Parasitic President
10:10	95	Motives and Morals
10:30	75	The Problem of Hell

**Session 2**

1:00	138	The Battle of Stolen Culture through the Medium of Artistic Property
1:20	144	'Peace is Our Profession' Inside the United Nations Security Council
1:40	154	The Use of the Internet in the Obama Biden Presidential Campaign
2:00	219	Understanding E-mail Overload

**Session 3**

2:30	20	Issuing Equity Globally
2:50	237	Playing Jazz
3:02	291	Hip Hop Aesthetics
3:14	227	Progressive Jazz: New Developments from Old Ideas

- **CMU 205**

**Session 1**

9:30	336	The Evolution of Green Alga into Terrestrial Land Plants
10:15	321	The Role & Status of Women Across the Globe: China, South Africa, Uganda, & Nepal

**Session 2**

1:00	109	Advanced Video Documentary Creative Research
2:00	297	Through a Looking Glass Darkly: Filmed Nightmares of the American Unconscious

**Session 3**

2:30	69	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
3:10	165	The principle of veracity as it applies to the field of mass communications

- **CMU 207**

**Session 1**

9:30	345	The Role & Status of Women Across the Globe: Afghanistan, Pakistan & Slovakia
10:05	340	The Status of Women in Bangladesh
10:30	74	Stimulus Plan: What is in it for MSUM ?

**Session 2**

1:00	79	Youth Baseball Injuries
1:30	111	Pioneering Molecular Techniques in the Trematode, <i>Otithodiplostomum ptycheilus</i>
2:00	300	Bioterrorism and Biosecurity

**Session 3**

2:30	238	Of Angels and Other Worlds: An Analysis of the Spirituality and Controversy in Philip Pullman's "His Dark Materials"
3:00	83	The Asian Financial Crisis
3:25	168	A Closer Look at Childhood Obesity: Fargo Versus the Nation.

- **CMU 208**

**Session 1**

9:30	115	Life Expectancy of HIV/AIDS
9:50	42	Genetic Variation in Wild and Retail Populations of Zebrafish ( <i>Danio rerio</i> ) and Their Usefulness in Ecotoxicology Studies
10:10	129	Cardiac Rehabilitation: Promoting Cardiac Wellness
10:30	91	A View of Newspapers: From the Bottom

**Session 2**

1:00	325	A White Teacher Talks About Race
1:20	102	Responsibility for Refugee Protection
1:40	317	Strategic Marketing Assessment for Product Entry Into South Africa
2:00	318	Crime in the USA: A Panel Analysis

**Session 3**

2:30	323	cyberwar/Cyber Security-how Technology Can be used to counter Terrorism.
2:50	332	Middle Eastern Ecotopia: Visions for a Future Sustainable Society
3:10	229	U.S. Immigration policy in the context of the Cold War

- **CMU 214**

**Session 1**

9:30	161	Japanese Yen Carry Trade
9:50	174	The Thinking Thing
10:10	247	Past, Present and Future of IT and how it has evolved.
10:30	178	Miscarriage and Mental Health

**Session 2**

1:00	194	Medeka embryo development upon exposure to downstream water from an effluent plant
1:20	210	Pie Your Professor Fundraising Event
1:40	212	Fun With Electrostatics - Explorations of the Van de Graaff Generator
2:00	255	Computed Tomographic Scanning

**Session 3**

2:30	259	How Do Different Elements Affect How Humans Perceive Pitch?
2:50	263	The Ailing Warlord; a Look at the Medical History of Adolf Hitler
3:10	266	Explaining the Quality of Life Trends with the Human Development Index
3:30	267	Genetic variation among liverwort populations: evidence for incipient speciation

- **CMU 216**

**Session 1**

9:30	271	The Homeschooling Father
9:50	272	The United Nations and Sexual Abuse by Peacekeepers
10:10	275	Study on Web Content Control and Review of the Policy Stand Regarding Content Filtering
10:30	236	Glass Warmth and Light: The Application of Light in the Bigelow Chapel

**Session 2**

1:00	245	Doctor-Patient Communication: An Application of the Least Preferred Coworker Scale
1:20	246	thin film deposition in a vacuum system
1:40	258	The effect of international trade on human development in developing countries: A statistical analysis
2:00	289	Sovereignty: Hurdle to International Peace and Security

**Session 3**

2:30	292	Eroticism & Sexuality in the Films of Nicolas Roeg
2:50	296	Clostridium difficile
3:10	305	Identifying an Earlier Occupation at the Biesterfeldt site (32RM1), an 18th century Cheyenne earth lodge village located in Southeastern North Dakota
3:30	316	Demonstrating and Exploring the three Geographic Information Systems views

- **CMU 218**

**Session 1**

9:30	260	Structural Unemployment in The Fargo Moorhead Area
9:50	274	Factors Affecting Youth Crime Rates
10:10	286	Fassbinder and Sirk: The Cinema of Oppression
10:30	303	Attainability of Semantic knowledge in Digital Computers

**Session 2**

1:00	322	Don't Hold Them Back
1:20	337	Just War Theory and the Need for Truth and Reconciliation.
1:40	338	Dead and Kicking: The Film Hero's Adventure to Immortality
2:00	173	Making of a Champion, Exploring STEROID USE IN SPORTS

**Session 3**

2:30	176	Minnesota Protests to Film Birth of a Nation
2:50	184	The Role of Protest Music in Society During the Vietnam War era
3:10	188	Supply Chain Management & Organ Transplantation
3:30	197	Tech-speak

- **CMU 227**

**Session 1**

9:30	218	"All the World and his Wife comes here": Esther Edwards Burr and the New England Family Structure
9:50	222	Botanically Speaking, What is a Fruit?
10:10	223	Increasing High School Student's Interest in Chemistry/Biochemistry: Experiments that Meet MN High School Standards
10:30	225	Butterfly diversity at the MSUM Regional Science Center

*Numbers correspond with abstract listings beginning on page 31*

<b>Session 2</b>		
1:00	204	El habla Camba: comprehensible to the Spanish student?
1:20	159	Soil Magnetism of a Hearth Feature at the Biesterfeldt Archaeological Site
1:40	170	The Success of President Barack Obama
2:00	196	Past-Present-Future of IT & how it has evolved.
<b>Session 3</b>		
2:30	14	The State of the Economy and its Impact on the Construction Industry
2:50	22	Mothers' Use of Facilitating Techniques Before and After Parent Child-Communication Program Training
3:10	29	Analysis of International Joint Ventures
3:30	38	College Students' Perceptions Regarding Debt Repayment
<b>• CMU UG</b>		
<b>Session 1</b>		
9:30	84	The Play "La historia del hombre que se convirtio en perro"
10:15	341	The Status of Women in Ghana
10:40	214	GIS and its application.
<b>Session 2</b>		
1:00	53	More Homeowner Loss? The Effects of Utility Construction
1:20	68	Proximal Femoral Focal Deficiency
1:40	76	Medical Pluralism: its Potential for Helping to Meet the Needs of New Americans
2:00	82	Determining the Factors that Influence Professional Development
<b>Session 3</b>		
2:30	89	Female Domestic Workers in the Middle-East: New Racial Hierarchies
2:50	27	Asian Financial Crisis
3:10	180	Wolff-Parkinson-White Syndrome
3:30	48	Desertification in Northern China : Its impacts and possible solutions.

*Numbers correspond with abstract listings beginning on page 31*

## Hendrix Health Center

The Dragon Wellness Center  
is located in a temporary facility  
available **FREE** to current MSUM  
students, in your wellness center fee.

### Amenities:

- Paramount Strength Equipment
- Free Weights
- Precor Recumbant Bikes & Treadmills
- Elliptical Trainers
- Basketball Court & Locker Rooms
- Group Exercise Room
- Cardio Theater

### Hours

Monday-Thursday 6:00am - Midnight  
Friday 6:00am - 10:00pm  
Saturday Noon - 8:00pm  
Sunday 4:00pm - Midnight

1110 14th Street South, Moorhead  
[www.mnstate.edu/hendrix/wellness](http://www.mnstate.edu/hendrix/wellness)

Hendrix Health Center is your  
convenient clinic on campus.  
**FREE** office visits included in  
your student health fee.

### Services offered:

- Physicians & Nurse Practitioners
- Minor Illness & Injury Care
- Allergy & Immunization Clinic
- STD/HIV Prevention/Screening
- Birth Control Options/GYN Exams
- Chemical Health, Dating Violence, &
- Sexual Assault Counseling
- Low-Cost Pharmacy & Laboratory Services
- Over-the-Counter Medications & First-Aid Supplies

Hours: 8:00am-4:30pm  
Monday-Friday (when class is in session)

Call 218.477.2211 for an Appointment  
[www.mnstate.edu/hendrix](http://www.mnstate.edu/hendrix)

## Dragon Wellness Center

# Alphabetical List Of Presenters

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Presentation				
Name	Number	Room	Time	Title
Aasness, Megan	244	CMU	2:30	The Obstetrics Nursing Role
Aasness, Megan	243	CMU 203	10:10	How environmental change can intensify the effects of natural disasters: Hurricane Katrina
Abaza, Emir	288	CMU	2:30	Religious Symbols
Abdi, Omar	334	CMU	1:00	The effects of the bomb that was dropped in Hiroshima and Nagasaki by United States of America.
Abdul Cader, Ahamed	333	CMU	9:30	SAMURAI WARRIOR
Abel, Michael	280	CMU	2:30	CM 496-Capstone Experience M.A.R. Construction Twelve Oaks Hotel and Resort
Adams, Stacey	219	CMU 204	2:00	Understanding E-mail Overload
Adhikari, Prarthana	88	CMU	1:00	Women Empowerment and Poverty Reduction - Focus on South Asia
Aida, Kazune	229	CMU 208	3:10	U.S. Immigration policy in the context of the Cold War
Al-Kayali, Suzanne	106	CMU 101	10:30	What is a "Beautiful" Body?
Aleem, Sara	192	CMU	2:30	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 2: TESTING FOR POLAR VERSUS NON-POLAR COMPOUNDS
Aleem, Sara	341	CMU UG	10:15	The Status of Women in Ghana
Althoff, Jessica	15	CMU	1:00	Labor and Delivery Nursing
Amberson, Patrick	264	CMU	1:00	Policing The Internet
Amundson, Kate	176	CMU 218	2:30	Minnesota Protests to Film Birth of a Nation
Anderson, Katie	117	CMU	9:30	Binge Drinking and Alcoholism Among College Students
Anderson, Katie	190	CMU	1:00	HPV in Fargo-Moorhead
Anderson, Melody	33	CMU	9:30	Balance of Payments
Anderson, Marvin	316	CMU 216	3:30	Demonstrating and Exploring the three Geographic Information Systems views
Anderson, Breanne	327	CMU	1:00	Ecotopia in the Shire: Visions for a Future Sustainable Society
Anderson, Shelly	18	CMU	9:30	International joint ventures
Anderson, Mary	345	CMU 207	9:30	The Role & Status of Women Across the Globe: Afghanistan, Pakistan & Slovakia
Anderson, Douglas	286	CMU 218	10:10	Fassbinder and Sirk: The Cinema of Oppression
Anderson, Jonathan	18	CMU	9:30	International joint ventures
Anderson, Jonathan	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Anderson, Antony	205	CMU 101	2:30	The Found Image in Contemporary Art
Anderson, Maranda	167	CMU	1:00	The Association Between Mental Illness and Income
Anderson, Maranda	168	CMU 207	3:25	A Closer Look at Childhood Obesity: Fargo Versus the Nation.
Archer, Ashlee	265	CMU	2:30	Child Sexual Abuse
Ashby, Michael	276	CMU	1:00	Red River Valley Science Museum
Aukland, Katie	340	CMU 207	10:05	The Status of Women in Bangladesh
Bailly, Danielle	179	CMU	1:00	Microwear Patterns on Lithic Implements From the Sprunk Site
Baldridge, Andrew	17	CMU 200F	3:10	STOCAR Persuasive Campaign
Baldridge, Andrew	349	CMU 203	1:15	A Media Criticism of the NBC television show Friday Night Lights
Banla, Ismael	55	CMU	9:30	Reaction of sodium cyanoborohydride and semicarbazide hydrochloride in ionic liquids II
Barber, Casey	197	CMU 218	3:30	Tech-speak
Barber, Casey	195	CMU 204	9:30	Panel on Shakespeare
Barnes, Jannel	329	CMU	9:30	Australian Ecotopia: Visions for a Future Sustainable Society
Barrett, Michael	227	CMU 204	3:14	Progressive Jazz: New Developments from Old Ideas
Barrows, Travis	114	CMU 200D	2:50	Hip-Hop and Masculinity
Batesole, Anthony	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Baum, Steven	158	CMU	1:00	The Feasibility of Integrated Care: Does it Work?
Beachem, Dustin	115	CMU 208	9:30	Life Expectancy of HIV/AIDS
Beck, Leonard	188	CMU 218	3:10	Supply Chain Management & Organ Transplantation
Belavina, Natalia	152	CMU	1:00	Investigation of the sites of phosphorylation of ctNHE1-His by Rock
Berg, Thomas	175	CMU	2:30	Awakening: Origins of Self-Consciousness

Numbers correspond with abstract listings beginning on page 31

**Presentation**

Name	Number	Room	Time	Title
Berg, Thomas	201	CMU	9:30	Electrical Capacitance: A Different Perspective on Subsurface Mapping
Bergee, Kathryn	266	CMU 214	3:10	Explaining the Quality of Life Trends with the Human Development Index
Berget, Eric	65	CMU	1:00	Organic-Dye Sensitized Solar Cells
Beukelman, Kalie	331	CMU	2:30	Midwestern Ecotopia: Visions for a Future Sustainable Society
Beyer, Katie	103	CMU 101	9:30	Humor is a laughing matter
Billman, Joleen	195	CMU 204	9:30	Panel on Shakespeare
Billman, Joleen	90	CMU 200E	3:10	The Positive Side of Soft News: Personalization, Dramatization, and Infotainment
Binkard, David	98	CMU 200D	2:30	The Economic Geography of the Netherlands in the Colonial Period
Binstock, Char	192	CMU	2:30	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 2: TESTING FOR POLAR VERSUS NON-POLAR COMPOUNDS
Binstock, Char	169	CMU	2:30	Risk-sensitive Information-gathering by zebrafish following release of chemical alarm cues
Binstock, Char	111	CMU 207	1:30	Pioneering Molecular Techniques in the Trematode, <i>Omithodiplostomum ptycheilus</i>
Black, Kirby	325	CMU 208	1:00	A White Teacher Talks About Race
Blaskowski, Nathan	279	CMU	1:00	CM CAPSTONE PROJECT BLUE RIBBON CONSTRUCTION
Block, Andrea	39	CMU	2:30	Have You Had the Giggles Lately? Humor and Its Effects on Well-Being
Bloms, Rachel	194	CMU	214	1:00 Medeka embryo development upon exposure to downstream water from an effluent plant
Bloomingdale, David	24	CMU	9:30	The World of Film Censorship: And Its Ratings System.
Boie, Megan	350	CMU 203	1:30	A Media Criticism of the movie Crash
Boman, Andrew	322	CMU 218	1:00	Don't Hold Them Back
Borgh, Addie	40	CMU	9:30	Female Beauty: The Distorted View Media Gives Society
Boucher, Bryan	64	CMU	9:30	Alcohol Abuse
Bougary, Azhar	267	CMU 214	3:30	Genetic variation among liverwort populations: evidence for incipient speciation
Boushee, Nicholas	57	CMU 204	9:50	The Press & The Parasitic President
Brackin, Samuel	326	CMU	9:30	the Bushido
Brako, Daniel	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Brandsrud, Amanda	331	CMU	2:30	Midwestern Ecotopia: Visions for a Future Sustainable Society
Braton, Sarah	14	CMU 227	2:30	The State of the Economy and its Impact on the Construction Industry
Breyer, Jessie	122	CMU 200D	3:30	A Possible Correlation Between GnRH and Reproductive Pheromones in Female Zebrafish.
Brockopp, Amber	290	CMU	9:30	The Sociological Explanation of Photography
Bronczyk, Corey	14	CMU 227	2:30	The State of the Economy and its Impact on the Construction Industry
Brustad, Lindsay	258	CMU 216	1:40	The effect of international trade on human development in developing countries: A statistical analysis
Bryn, Adam	327	CMU	1:00	Ecotopia in the Shire: Visions for a Future Sustainable Society
Buck, Chandra	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Bue, Stephanie	49	CMU	2:30	Septic Shock and Multiple Organ Dysfunction Syndrome
Burchill, Elaine	351	CMU 203	1:45	A Media Criticism of the NBC comedy television hit The Office
Burdick, Brady	283	CMU	1:00	cm 496 capstone experience-Brevjo Construction-Northtown Complex
Bury, Susan	119	CMU	2:30	The abiotic induction of systemic acquired resistance (SAR) in <i>Cucumis sativus</i> alters photosynthetic productivity and cell wall structure: Evidence for interactions between the plant and its environment.
Bury, Susan	256	CMU	9:30	Title: Young convict cichlids ( <i>Amatitlania siquia</i> ) use visual information to update olfactory homing cues that occur at a certain time in their development.
Bury, Susan	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Carlton, Aimee	181	CMU	2:30	Controversy over ADHD
Carlson, Justin	327	CMU	1:00	Ecotopia in the Shire: Visions for a Future Sustainable Society
Carlson, Joshua	336	CMU 205	9:30	The Evolution of Green Alga into Terrestrial Land Plants
Cashman, Amanda	210	CMU 214	1:20	Pie Your Professor Fundraising Event
Castillo, Christian	343	CMU	2:30	The Status of Women in The USA: Native American
Centko, Jenny	33	CMU	9:30	Balance of Payments
Chenard, Claudia	310	CMU	1:00	A Cup with the Tea Masters: A historical look at Japanese pottery and how it influenced American ceramics today.
Claussen, Jacob	260	CMU 218	9:30	Structural Unemployment in The Fargo Moorhead Area

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Cole, Ian	151	CMU 200F	2:50	Civil-Rights Era African American Literature and Erik Erikson's Stages of Life-Span Development
Cole, Matthew	111	CMU 207	1:30	Pioneering Molecular Techniques in the Trematode, <i>Omithodiplostomum ptycheiulus</i>
Collins, Shandon	242	CMU	9:30	Chronic Paraplegia is Associated with Abnormal Cardiac Autonomic Balance, Changes in Heart Rate Variability, and Changes in Spontaneous Baroreflex Sensitivity and Gain in Sprague Dawley Rats.
Collins, Shandon	245	CMU 216	1:00	Doctor-Patient Communication: An Application of the Least Preferred Coworker Scale
Colson, Fenner	137	CMU	2:30	Building and testing a temperature controller for a low temperature NMR experiment.
Conroy, Robb	320	CMU	9:30	China Business Trip
Cordes, Kayla	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Corwin, David	298	CMU	2:30	Primer optimization and use of RAPD markers to identify plant populations
Corwin, David	281	CMU	9:30	DNA fingerprinting with ISSR-PCR
Covey, Courtney	104	CMU 101	9:50	Gender differences on on-line communications
Craft, Lucinda	177	CMU	9:30	Healthy Aging
Davidson, Joely	103	CMU 101	9:30	Humor is a laughing matter
Davidson, Tera	78	CMU	1:00	Assessment in Developmental Delay for Adaptive Skills
Davidson, Tera	113	CMU	2:30	Emotional/Behavioral Disorders and how they relate to Attention Deficit Hyperactivity Disorders
Dettmann, Virginia	343	CMU	2:30	The Status of Women in The USA: Native American
Devkota, Pragya	339	CMU	9:30	The Status of Women in Afghanistan
Devkota, Pratigya	342	CMU	1:00	The Status of Women in Turkey
Devkota, Pratigya	148	CMU 200C	2:30	Yen Carry Trade
DeVlieger, Wade	279	CMU	1:00	CM CAPSTONE PROJECT BLUE RIBBON CONSTRUCTION
Dhakal, Rajesh	126	CMU	2:30	Exploring X-rays
Dhankher, Aashana	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Dickelman, Brady	20	CMU 204	2:30	Issuing Equity Globally
Dillinger, Emma	320	CMU	9:30	China Business Trip
Doble, Ryan	278	CMU	9:30	F-M Community Center
Dooley, Lucas	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Dom, Isaac	20	CMU 204	2:30	Issuing Equity Globally
Dostal, Karmen	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Driscoll, Erin	44	CMU	9:30	Synthesis and Reactions of Bromoalkenes
Dyce, Emily	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Dye, Thomas	256	CMU	9:30	Title: Young convict cichlids ( <i>Amatitlania siquia</i> ) use visual information to update olfactory homing cues that occur at a certain time in their development.
Earney, Nicholas	356	CMU 203	3:15	Motley Crue's "Red, White & Crue"
Ebnet, Dayna	61	CMU	9:30	The Prevalence of Obesity in U.S. Adults
Ebnet, Dayna	216	CMU	2:30	Does Age Influence Divorce?
Efron, Benjamin	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Eichhorn, Tara	194	CMU 214	1:00	Medeka embryo development upon exposure to downstream water from an effluent plant
Elfelt, Morgan	163	CMU	1:00	Updated Survey of Wild Turkey ( <i>Meleagris gallopavo</i> ) distribution in Cass (ND) and Clay (MN) Counties
Elfelt, Morgan	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys Picta Bellii</i> ) in Clay County, MN
Elzen, Sara	321	CMU 205	10:15	The Role & Status of Women Across the Globe: China, South Africa, Uganda, & Nepal
Ewing, Kayla	104	CMU 101	9:50	Gender differences on on-line communications
Fahrman, Katrina	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Failing, Christopher	193	CMU	1:00	Investigation of the role of ADP concentration on PPDK-RP protein phosphatase activity.
Falde, Eric	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Fay, Austin	91	CMU 208	10:30	A View of Newspapers: From the Bottom
Fay, James	330	CMU	1:00	Caribbean Ecotopia: Visions for a Future Sustainable Society
Felchle, Bridget	64	CMU	9:30	Alcohol Abuse
Ferragut, Lauren	319	CMU	9:30	SPATIAL TRENDS IN CONODONT DISTRIBUTION PATTERNS AND TAPHONOMY IN KEY STRATIGRAPHIC SURFACES AND HORIZONS THAT DELINEATE GENETIC UNITS WITHIN THE IOLA LIMESTONE: UPPER PENNSYLVANIAN OF KANSAS AND IOWA

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Fetzer, Daniel	242	CMU	9:30	Chronic Paraplegia is Associated with Abnormal Cardiac Autonomic Balance, Changes in Heart Rate Variability, and Changes in Spontaneous Baroreflex Sensitivity and Gain in Sprague Dawley Rats.
Fetzer, Dustin	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Fike, Samantha	104	CMU 101	9:50	Gender differences on on-line communications
Fiskness, Heidi	294	CMU	1:00	Literacy Instruction in Early Childhood Special Education: Implications for Students Who Use Augmentative and Alternative Communication (AAC)
Fjeld, Everett	283	CMU	1:00	cm 496 capstone experience-Brevjo Construction-Northtown Complex
Flaa, Tyler	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Flaten, Sara	146	CMU	9:30	Men's life expectancy compared to Women's life expectancy.
Flick, Samantha	330	CMU	1:00	Caribbean Ecotopia: Visions for a Future Sustainable Society
Floer, Theresa	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Floer, Theresa	182	CMU	9:30	"The assessment of DNA damage in zebrafish using a comet assay" - Theresa Floer
Floyd, LaMara	27	CMU UG	2:50	Asian Financial Crisis
Foertsch, Joseph	284	CMU	2:30	CM 496 Capstone project Carrel Barrel Restaurant
Fossum, Grant	27	CMU UG	2:50	Asian Financial Crisis
Freed, Alexander	123	CMU	2:30	Gamma Ray Spectroscopy
Fried, Christopher	66	CMU 200C	3:10	Exploring Virtual Worlds
Fruechte, Beth	79	CMU 207	1:00	Youth Baseball Injuries
Gerberding, Jennifer	240	CMU	2:30	Love Your Heart
Giedosh, John	237	CMU 204	2:50	Playing Jazz
Goraczkowski, Amber	55	CMU	9:30	Reaction of sodium cyanoborohydride and semicarbazide hydrochloride in ionic liquids II
Gordon, Sean	132	CMU	1:00	Stone Tool Technology of a Historic American Indian Site
Grabinger, Jeremy	84	CMU UG	9:30	The Play "La historia del hombre que se convirtio en perro"
Gracyk, Tatiana	95	CMU 204	10:10	Motives and Morals
Granberg, Jody	300	CMU 207	2:00	Bioterrorism and Biosecurity
Greenwood, James	209	CMU	9:30	Ancient Cultural and Religious Influences on The Modern Chinese Language.
Greff, Jenna	60	CMU 200B	2:30	Prevalence of Lung Cancer Rates Due to Minnesota Smoking Ban
Grube, Kacie	320	CMU	9:30	China Business Trip
Guffey, Jenenne	76	CMU UG	1:40	Medical Pluralism: its Potential for Helping to Meet the Needs of New Americans
Guilfoile, Steven	264	CMU	1:00	Policing The Internet
Gullickson, Krista	16	CMU	2:30	Nursing in the Developing Country of Nicaragua
Gunasena, Natassja	89	CMU UG	2:30	Female Domestic Workers in the Middle-East: New Racial Hierarchies
Gusewelle, Ann	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Haag, Corey	285	CMU	9:30	Premier Contracting L.L.C Capstone Presentaion
Haag, Rachel	343	CMU	2:30	The Status of Women in The USA: Native American
Haberstick, Roy	62	CMU	1:00	Go Bananas For Fair Trade
Hall, Anna	30	CMU	9:30	Zoroastrianism
Halverson, Torrey	165	CMU 205	3:10	The principle of veracity as it applies to the field of mass communications
Hammes, Daniel	164	CMU	2:30	Exploring reactions for the synthesis of chiral acyl pyrazolidinones for chiral relay studies.
Hanson, Kirk	287	CMU	1:00	The Pursuit of Altered States of Consciousness Through the Use of Indigenous Psychoactive Drugs
Harper, Leigh	142	CMU	9:30	Kitsune And Inari: The Study Of The Japanese Fox Deity In Inari And Other Japanese Religions
Harper, Leigh	143	CMU	1:00	Manga Religion: Religion expressed within a graphic context of Japanese Manga
Harper, Leigh	140	CMU	2:30	Otaku Health Risks
Harper, Mary	145	CMU	2:30	The Anishinnabe (Ojibway) Migration
Harris, J Chrys	226	CMU	2:30	Maps! Maps! Maps! A Cultural Interpretation of Geophysical Images Generated from the Biesterfeldt Site.
Harris, Heather	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Harris, John	123	CMU	2:30	Gamma Ray Spectroscopy
Hartung, Emily	173	CMU 218	2:00	Making of a Champion, Exploring STEROID USE IN SPORTS
Hasbargen, Adam	337	CMU 218	1:20	Just War Theory and the Need for Truth and Reconciliation.

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Haseleu, Jeremiah	285	CMU	9:30	Premier Contracting L.L.C Capstone Presentaion
Hassan, Ruqiya	307	CMU	1:00	The Relationship among Income, Degree, and Health status.
Haugen, Seth	155	CMU 203	9:50	deforestation in the amazon rain forest
Haugrud, Philip	127	CMU 200E	2:30	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 1: TESTING THE PROTEIN HYPOTHESIS
Haugrud, Philip	186	CMU	1:00	The onset of systemic acquired resistance in Cucumis sativus: a study of environmentally induced changes in fundamental means of energy transformation
Hayes, Emily	332	CMU 208	2:50	Middle Eastern Ecotopia: Visions for a Future Sustainable Society
Heinz, Charleen	105	CMU 101	10:10	A Comparative Study of Short and Long-Term Memory in College Age Females and Males
Heinze, Amber	170	CMU 227	1:40	The Success of President Barack Obama
Henke, Ann	18	CMU	9:30	International joint ventures
Henning, Danielle	316	CMU 216	3:30	Demonstarting and Exploring the three Geographic Information Systems views
Henry, Jeffrey	268	CMU	9:30	EFFECTS OF TEMPERATURE ON ZEBRAFISH CHEMICAL CUES
Heppner, Josiah	283	CMU	1:00	cm 496 capstone experience-Brevjo Construction-Northtown Complex
Herath, Bodini	225	CMU 227	10:30	Butterfly diversity at the MSUM Regional Science Center
Herath, Bodini	235	CMU	1:00	How healthy are my Leaves? Using the Fluorometer to asses the Photosynthetic health of leaves.
Hermanson, Derick	318	CMU 208	2:00	Crime in the USA: A Panel Analysis
Herrmann, Tara	251	CMU	9:30	The Consequence of the Differences between Men and Women when Utilizing Healthcare
Hertel, David	330	CMU	1:00	Caribbean Ecotopia: Visions for a Future Sustainable Society
Hilar, Debra	342	CMU	1:00	The Status of Women in Turkey
Hinrichs, Alec	139	CMU	9:30	Energy Drinks Hype or Harm?
Hoard, Andrew	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Hochstein, Jenna	3	CMU	9:30	Guidelines for Managing Patients with Supraventricular Arrhythmias.
Hoff, Jason	153	CMU	2:30	The Impact on Health in Relation to Family Income.
Hohenstern, Brooke	64	CMU	9:30	Alcohol Abuse
Holding Eagle, Jamie	281	CMU	9:30	DNA fingerprinting with ISSR-PCR
Hollis, Jessica	329	CMU	9:30	Australian Ecotopia: Visions for a Future Sustainable Society
Holloway, Robert	328	CMU	2:30	European Ecotopia: Visions for a Future Sustainable Society
Holmaas, Luke	297	CMU 205	2:00	Through a Looking Glass Darkly: Filmed Nightmares of the American Unconscious
Horton, Ashley	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Howe, Zachary	324	CMU	1:00	"Digitizing Patient Health Records- Pros and Cons"
Hoyt, Morgan	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Hwang, Hyunjin	61	CMU	9:30	The Prevalence of Obesity in U.S. Adults
Hwang, Hyunjin	307	CMU	1:00	The Relationship among Income, Degree, and Health status.
Ibsen, Vanessa	348	CMU 203	1:00	A Media Criticism of Comedy Central's South Park and the Ginger Kids
Isaak, Adam	171	CMU	9:30	Self Balancing Sateboard
Jackson, Robert	172	CMU	1:00	Chemical Imbalances in the Brain Relating to Socioeconomic Index
Jacobson, Anthony	174	CMU 214	9:50	The Thinking Thing
Jagol, Elizabeth	233	CMU	9:30	The Use of VO2 Max and Hydrostatic Weighing for Optimal Participant Training
Janke, Kelly	313	CMU	9:30	Stay Fit Fitness Center
Jaszczak, Jennifer	75	CMU 204	10:30	The Problem of Hell
Jepson, Elizabeth	217	CMU	9:30	MRSA
Johanson, Elizabeth	178	CMU 214	10:30	Miscarriage and Mental Health
Johnk, Maxfield	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Johnson, Kayleigh	154	CMU 204	1:40	The Use of the Internet in the Obama Biden Presidential Campaign
Johnson, Kayleigh	138	CMU 204	1:00	The Battle of Stolen Culture through the Medium of Artistic Property
Johnson, Brian	42	CMU 208	9:50	Genetic Variation in Wild and Retail Populations of Zebrafish ( <i>Danio rerio</i> ) and Their Usefulness in Ecotoxicology Studies
Johnson, Brian	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Johnson, Daniel	277	CMU	2:30	Hard Rock Cafe
Johnson, Amber	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Johnson, Jesse	173	CMU 218	2:00	Making of a Champion, Exploring STEROID USE IN SPORTS
Johnson, Brenda	106	CMU 101	10:30	What is a "Beautiful" Body?
Johnston, Daniel	301	CMU 203	10:30	The two great Conquistadors of the Americas.
Jones, Danielle	147	CMU 200F	2:30	Comparison of Relationship Satisfaction in Real Life and Virtual Romantic Relationships: Is Second Life Really So Different From Real Life?
Jorgenson, Renek	194	CMU 214	1:00	Medeka embryo development upon exposure to downstream water from an effluent plant
Jorgenson, Renek	332	CMU 208	2:50	Middle Eastern Ecotopia: Visions for a Future Sustainable Society
Jovonovich, Christine	248	CMU	9:30	Autism
Jovonovich, Christine	249	CMU	1:00	Autism: Challenges and Perceptions
Jovonovich, Christine	250	CMU	2:30	Challenges and Perceptions of Autism
Kaese, Anne	317	CMU 208	1:40	Strategic Marketing Assessment for Product Entry Into South Africa
Kamphuis, Kara	67	CMU	2:30	Obsessive Compulsive Disorder
Kangas, Alexander	53	CMU UG	1:00	More Homeowner Loss? The Effects of Utility Construction
Kanrud, Carrie	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Karas, Emily	56	CMU	1:00	Respiratory Syncytial Virus
Karlen, Kathryn	4	CMU	1:00	The use of morphine with patients that are at the end of their life who are suffering from dyspnea
Karls, Kristopher	188	CMU 218	3:10	Supply Chain Management & Organ Transplantation
Karsky, Aimee	203	CMU	1:00	Happiness and Marriage: Does it matter after all?
Kasper, Devin	123	CMU	2:30	Gamma Ray Spectroscopy
Kasper, Devin	312	CMU	9:30	Gamma Ray Burst Afterglow Imaging
Kelbert, Rebecca	188	CMU 218	3:10	Supply Chain Management & Organ Transplantation
Kemp, Amy	274	CMU 218	9:50	Factors Affecting Youth Crime Rates
Kennedy, Tracie	320	CMU	9:30	China Business Trip
Kensinger, Emily	29	CMU 227	3:10	Analysis of International Joint Ventures
Khakurel, Nirajan	214	CMU UG	10:40	GIS and its application.
King, Michelle	17	CMU 200F	3:10	STOCAR Persuasive Campaign
Klinkle, Michael	292	CMU 216	2:30	Eroticism & Sexuality in the Films of Nicolas Roeg
Kinzer, Nichole	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Kirby, Jenna	161	CMU 214	9:30	Japanese Yen Carry Trade
Kirch, Katlyn	84	CMU UG	9:30	The Play "La historia del hombre que se convirtio en perro"
Klein, Kallyn	340	CMU 207	10:05	The Status of Women in Bangladesh
Kleindl, Kelsey	252	CMU	1:00	Health Lungs Lead to Healthy Lives
Kilndworth, Sarah	101	CMU	9:30	Commotio Cordis: Cardiac Concussion
Kline, Kelli	118	CMU	1:00	Plants in Witchcraft, Magic and Ritual
Knutson, Aaron	285	CMU	9:30	Premier Contracting L.L.C Capstone Presentaion
Knutson, Sabrina	190	CMU	1:00	HPV in Fargo-Moorhead
Kodikara, Melani	166	CMU	9:30	Enhancing Comprehension through Colored Diagrams
Koenig, Kayla	59	CMU	2:30	The Study of Child Abuse
Kohtala, Laura	325	CMU 208	1:00	A White Teacher Talks About Race
Kollitz, Christopher	20	CMU 204	2:30	Issuing Equity Globally
Kontz, Kolby	320	CMU	9:30	China Business Trip
Kopel, Tracy	22	CMU 227	2:50	Mothers' Use of Facilitating Techniques Before and After Parent Child-Communication Program Training
Korczak, Andrea	43	CMU	2:30	How About Some Pi?
Koskela, Amanda	281	CMU	9:30	DNA fingerprinting with ISSR-PCR
Kotchian, Alex	264	CMU	1:00	Policing The Internet
Kotchian, Alex	320	CMU	9:30	China Business Trip
Kraemer, Melissa	109	CMU 205	1:00	Advanced Video Documentary Creative Research

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Kramer, Kyle	110	CMU	9:30	Sociological View of Family Origin and HIV/AIDS
Kramer, Joseph	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Krause, James	131	CMU 200B	3:10	Multinational Enterprises and Working Capital Management
Krebs, Matthew	276	CMU	1:00	Red River Valley Science Museum
Kretchmer, Kathleen	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Kriel, Nolan	277	CMU	2:30	Hard Rock Cafe
Krueger, Tina	320	CMU	9:30	China Business Trip
Krump, Lori	115	CMU 208	9:30	Life Expectancy of HIV/AIDS
Kugler, Cha'ven	28	CMU	2:30	Diabetes Presentation
Kuhlmann, Shantell	34	CMU	1:00	The Perception of Beauty when Facial Features are Highlighted with Cosmetics
Kuhlmann, Shantell	35	CMU	2:30	The Influence of a Multicultural Class on Student's Attitudes
Kuntz, Joseph	254	CMU	2:30	The Effects of Depression on School-Aged Students
Kuruppuarachchi, Chathurika	202	CMU	9:30	Do temperature and stoichiometry interact to explain growth rates in an aquatic invertebrate?
Kvamme, Lacey	228	CMU 101	3:30	Hussein Chalayan: fashion in the art world.
Lachowitz, Seth	130	CMU	9:30	Intermittent Explosive Disorder
Laney, Jennifer	329	CMU	9:30	Australian Ecotopia: Visions for a Future Sustainable Society
Langer, Stephanie	328	CMU	2:30	European Ecotopia: Visions for a Future Sustainable Society
Langowski, Briana	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
LaPlante, Ashley	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Larson, Bryan	247	CMU 214	10:10	Past, Present and Future of IT and how it has evolved.
Larson, Rex	355	CMU 203	3:00	Dramatism and the Kobe Bryant Rape Case
Larson, Anthony	315	CMU	2:30	REINTERPRETATION OF OBSERVED EFFECTS OF CO ON CRYSTALLIZATION IN SILICATE MELTS AT 1-ATMOSPHERE PRESSURE
Larson, Andy	280	CMU	2:30	CM 496-Capstone Experience M.A.R. Construction Twelve Oaks Hotel and Resort
Laybourn, Alison	259	CMU 214	2:30	How Do Different Elements Affect How Humans Perceive Pitch?
Leaf, Veronica	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Leaf, Veronica	77	CMU	1:00	Sexually Transmitted Diseases
Ledin, Katherine	309	CMU	9:30	" Abandoned Farmhouses of Polk County: A study"
Lee, Katie	273	CMU	9:30	Shintoism's Interaction with Buddhism in Japan
Lee, Katlin	83	CMU 207	3:00	The Asian Financial Crisis
Leither, Katherine	344	CMU	9:30	The Status of Women in The USA: Hispanic Americans
Lenarz, Chelsea	296	CMU 216	2:50	<i>Clostridium difficile</i>
Lessard, Lindsay	321	CMU 205	10:15	The Role & Status of Women Across the Globe: China, South Africa, Uganda, & Nepal
Lindsay, Maria	44	CMU	9:30	Synthesis and Reactions of Bromoalkenes
Lindseth, Amanda	131	CMU 200B	3:10	Multinational Enterprises and Working Capital Management
Lindseth, Amanda	247	CMU 214	10:10	Past, Present and Future of IT and how it has evolved.
Linke, Adam	169	CMU	2:30	Risk-sensitive information-gathering by zebrafish following release of chemical alarm cues
Linke, Adam	160	CMU	2:30	Phenotypic Consequences of the Egg Number – Egg Size Trade off in Zebrafish ( <i>Danio rerio</i> )
Lisburg, Megan	42	CMU 208	9:50	Genetic Variation in Wild and Retail Populations of Zebrafish ( <i>Danio rerio</i> ) and Their Usefulness in Ecotoxicology Studies
Lisburg, Megan	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Livingston, Lindsey	320	CMU	9:30	China Business Trip
Livingston, Lindsey	339	CMU	9:30	The Status of Women in Afghanistan
Loge, Kristine	60	CMU 200B	2:30	Prevalence of Lung Cancer Rates Due to Minnesota Smoking Ban
Longmire, Billy	320	CMU	9:30	China Business Trip
Lothspeich, Brittany	208	CMU	2:30	The Effects of Television and Sedentary Lifestyles Have on Childhood Obesity.
Louwagie, Shawn	279	CMU	1:00	CM CAPSTONE PROJECT BLUE RIBBON CONSTRUCTION
Lugert, Chelsea	147	CMU 200F	2:30	Comparison of Relationship Satisfaction in Real Life and Virtual Romantic Relationships: Is Second Life Really So Different From Real Life?
Lukes, Zachary	324	CMU	1:00	"Digitizing Patient Health Records- Pros and Cons"

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**Presentation**

Name	Number	Room	Time	Title
Lundberg, Jennifer	345	CMU 207	9:30	The Role & Status of Women Across the Globe: Afghanistan, Pakistan & Slovakia
Luptak, Samantha	219	CMU 204	2:00	Understanding E-mail Overload
Maatz, Kali	22	CMU 227	2:50	Mothers' Use of Facilitating Techniques Before and After Parent Child-Communication Program Training
Madhikarmi, Deena	115	CMU 208	9:30	Life Expectancy of HIV/AIDS
Marier, Cynthia	341	CMU UG	10:15	The Status of Women in Ghana
Marketon, Jill	340	CMU 207	10:05	The Status of Women in Bangladesh
Markham, Kelly	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys Picta Bellii</i> ) in Clay County, MN
Martin, Nikkole	335	CMU	2:30	Not Just Cartoons: Japanese Culture Inherent Within Anime and Manga
Martineau, Susan	51	CMU	9:30	Deep Vein Thrombosis and Compression Stockings
Marvin, Brittany	59	CMU	2:30	The Study of Child Abuse
Marvin, Brittany	100	CMU	9:30	Obesity: Genetic or Socioeconomic?
Marvin, Ashley	31	CMU	1:00	Evaluating the Consistency of the Word Fluency Performance for a Single Subject With Executive Dysfunction
Masinde, Wendy	128	CMU 200E	2:50	Japan's Attitudes Towards Homes For The Elderly
Masinde, Wendy	129	CMU 208	10:10	Cardiac Rehabilitation: Promoting Cardiac Wellness
Matheson, Ellen	195	CMU 204	9:30	Panel on Shakespeare
Mattis, Douglas	338	CMU 218	1:40	Dead and Kicking: The Film Hero's Adventure to Immortality
Mayala, Matthew	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
McAllister, Michael	308	CMU	2:30	SEQUENCE STRATIGRAPHY AND CONODONT PALEOECOLOGY OF THE LOWER DUPEROW FORMATION (UPPER DEVONIAN) IN WESTERN NORTH DAKOTA
McCarthy, Kaitlin	223	CMU 227	10:10	Increasing High School Student's Interest in Chemistry/Biochemistry: Experiments that Meet MN High School Standards
McClintock, Brett	264	CMU	1:00	Policing The Internet
McGeary, Julie	235	CMU	1:00	How healthy are my Leaves? Using the Fluorometer to asses the Photosynthetic health of leaves.
McKenzie, Andrew	354	CMU 203	2:45	America's Ignorance to Foreign Culture: A Cultural Criticism of Borat
Melby, Tanya	36	CMU	9:30	Bulimia Nervosa and it's Relationship with E/BD
Mensah, Kwadwo	33	CMU	9:30	Balance of Payments
Meyer, Jessica	26	CMU	1:00	Reactive Attachment Disorder in todays Society
Meyer, Ryan	196	CMU 227	2:00	Past-Present-Future of IT & how it has evolved.
Meyer, Kelsie	319	CMU	9:30	SPATIAL TRENDS IN CONODONT DISTRIBUTION PATTERNS AND TAPHONOMY IN KEY STRATIGRAPHIC SURFACES AND HORIZONS THAT DELINEATE GENETIC UNITS WITHIN THE IOLA LIMESTONE: UPPER PENNSYLVANIAN OF KANSAS AND IOWA
Meyer, Derek	332	CMU 208	2:50	Middle Eastern Ecotopia: Visions for a Future Sustainable Society
Meyer, John	331	CMU	2:30	Midwestern Ecotopia: Visions for a Future Sustainable Society
Michaelson, Krista	342	CMU	1:00	The Status of Women in Turkey
Michel, Barbara	133	CMU 200E	3:30	The Teaching of Evolution and Creationism in US Public High Schools
Miller, Jeffrey	127	CMU 200E	2:30	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 1: TESTING THE PROTEIN HYPOTHESIS
Miller, Jeffrey	319	CMU	9:30	SPATIAL TRENDS IN CONODONT DISTRIBUTION PATTERNS AND TAPHONOMY IN KEY STRATIGRAPHIC SURFACES AND HORIZONS THAT DELINEATE GENETIC UNITS WITHIN THE IOLA LIMESTONE: UPPER PENNSYLVANIAN OF KANSAS AND IOWA
Miller, Diane	291	CMU 204	3:02	Hip Hop Aesthetics
Miller, Ross	148	CMU 200C	2:30	Yen Carry Trade
Moe, Rachael	215	CMU	1:00	Education and it's affects on Health risks; focusing on Breast Cancer and self Exams.
Mohamed, Bilal	41	CMU	1:00	Development of a high throughput screening of cytoskeletal drugs for effects on the kinetics of mitochondrial DNA replication
Moller, Megan	241	CMU	9:30	Different types of shock: septic, anaphylactic, and hypovolemic.
Monley, Robert	280	CMU	2:30	CM 496-Capstone Experience M.A.R. Construction Twelve Oaks Hotel and Resort
Monson, Debra	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Mooney, Thomas	246	CMU 216	1:20	thin film deposition in a vacuum system
Moran, Michael	327	CMU	1:00	Ecotopia in the Shire: Visions for a Future Sustainable Society
Morrison, Kathryn	162	CMU	9:30	Evaluation of the Chiral Relay Concept Using Pyrazolidinone Ring Systems
Morseth, Zachary	65	CMU	1:00	Organic-Dye Sensitized Solar Cells

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**Presentation**

Name	Number	Room	Time	Title
Mostad, Janelle	22	CMU 227	2:50	Mothers' Use of Facilitating Techniques Before and After Parent Child-Communication Program Training
Mullen, Timothy	298	CMU	2:30	Primer optimization and use of RAPD markers to identify plant populations
Mumm, Matthew	255	CMU 214	2:00	Computed Tomographic Scanning
Naab, Ryan	320	CMU	9:30	China Business Trip
Nagel, Dustin	161	CMU 214	9:30	Japanese Yen Carry Trade
Nagle, Kayla	194	CMU 214	1:00	Medeka embryo development upon exposure to downstream water from an effluent plant
Nelson, Matthew	284	CMU	2:30	CM 496 Capstone project Carrel Barrel Restaurant
Nelson, Noah	289	CMU 216	2:00	Sovereignty: Hurdle to International Peace and Security
Nelson, Stephanie	325	CMU 208	1:00	A White Teacher Talks About Race
Nelson, Sarah	121	CMU	1:00	Flintknapping as Experimental Archaeology and as Art
Nelson, Meghan	124	CMU	9:30	The Social Network of AIDS in U.S. Society
Nelson, Amanda	302	CMU	9:30	The Relationship between the Morality of Teens Engaging in Sex and Providing Birth Control Access, in Relation to Age
Ness, Mia	92	CMU	2:30	Study Abroad in Japan! Informational Website
Ness, Mia	156	CMU	9:30	Apple at MSUM Education Discount
Ness, Kimberly	199	CMU	9:30	Overall Happiness in Older Adults
Nguyen, Tony	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Nicholls, Paul	41	CMU	1:00	Development of a high throughput screening of cytoskeletal drugs for effects on the kinetics of mitochondrial DNA replication
Nicholls, Paul	270	CMU	2:30	Systemic Acquired Resistance Responses in Cucumis sativus
Niehoff, Amber	325	CMU 208	1:00	A White Teacher Talks About Race
Norberg, Cynthia	38	CMU 227	3:30	College Students' Perceptions Regarding Debt Repayment
Norland, Cristina	102	CMU 208	1:20	Responsibility for Refugee Protection
Norris, Justin	353	CMU 203	2:30	LBJ and the Beginning of the Age of Fear: A Media Criticism
Nynas, Annika	345	CMU 207	9:30	The Role & Status of Women Across the Globe: Afghanistan, Pakistan & Slovakia
Oachs, Amanda	97	CMU	9:30	Alternatives To Restraint Use in the Psychiatric Setting
Oftedahl, Calla	347	CMU	1:00	Nursing Interventions for Fall Prevention
Olds, Amber	165	CMU 205	3:10	The principle of veracity as it applies to the field of mass communications
Olson, Troy	144	CMU 204	1:20	'Peace is Our Profession' Inside the United Nations Security Council
Olson, Troy	266	CMU 214	3:10	Explaining the Quality of Life Trends with the Human Development Index
Olson, Scott	330	CMU	1:00	Caribbean Ecotopia: Visions for a Future Sustainable Society
Olson, Megan	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Olson, James Robert	276	CMU	1:00	Red River Valley Science Museum
Oman, Daniel	277	CMU	2:30	Hard Rock Cafe
Oppegard, Ashley	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Ostman, Michael	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Overseth, Haleigh	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Oxenreider, Julia	105	CMU 101	10:10	A Comparative Study of Short and Long-Term Memory in College Age Females and Males
Oxton, Rory	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys picta bellii</i> ) in Clay County, MN
Oye, Matthew	161	CMU 214	9:30	Japanese Yen Carry Trade
Paquin, Angela	21	CMU	2:30	Benefits of Taking a "Time-out" in the Operating Room
Parnell, Eva	271	CMU 216	9:30	The Homeschooling Father
Pary, Fay	135	CMU 200B	3:30	Quality Programming and Students with Emotional Behavioral Disabilities; Factors to consider.
Peete, Lisa	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Peper, Jenna	187	CMU	9:30	The Comet Assay for Visualizing DNA Damage
Peper, Amanda	321	CMU 205	10:15	The Role & Status of Women Across the Globe: China, South Africa, Uganda, & Nepal
Petersen-Meneffe, Natalie	87	CMU	9:30	Honoring the Spirits Haitian Vodou Rituals
Pfleger, Nicole	69	CMU 205	2:30	Experiencing Ecotourism in Costa Rica: Comparing Research with Reality
Pigeon, Jered	32	CMU	2:30	Analysis of Gender Roles in the Latino Community
Pitz, Andrea	192	CMU	2:30	CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 2: TESTING FOR POLAR VERSUS NON-POLAR COMPOUNDS

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**Presentation**

Name	Number	Room	Time	Title
Poitras, Simone	108	CMU	2:30	Pharmacological Treatments for Children with Behavioral Disorders and the Nursing Implications
Posterick, Laura	165	CMU 205	3:10	The principle of veracity as it applies to the field of mass communications
Powlish, Christa	52	CMU	1:00	Trauma
Priebe, Kathleen	37	CMU	1:00	Clinical Risk: Infection Control in Audiology
Prissel, Tabb	269	CMU	1:00	Additional Experiments Suggesting that Neutral Nickel is Soluble in Silicate Melts at Low Concentration.
Pruitt, Katie	77	CMU	1:00	Sexually Transmitted Diseases
Quitschreiber, Andrew	313	CMU	9:30	Stay Fit Fitness Center
Radenic, Sonny	224	CMU	1:00	MEASURING FISH PERSONALITY: THE SHY-BOLD CONTINUUM IN ZEBRA FISH
Radermacher, Matthew	96	CMU	2:30	Trade Impacts at the Biesterfeldt Site: An examination of metal artifacts
Rahman, Nazeea	74	CMU 207	10:30	Stimulus Plan: What is in it for MSUM ?
Ralston, Katherine	210	CMU 214	1:20	Pie Your Professor Fundraising Event
Ranjitkar, Sharon	343	CMU	2:30	The Status of Women in The USA: Native American
Ranz, Evan	196	CMU 227	2:00	Past-Present-Future of IT & how it has evolved.
Rastedt, DeAnna	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys Picta Bellii</i> ) in Clay County, MN
Rawal, Elizabeth	59	CMU	2:30	The Study of Child Abuse
Rehling, Ashley	99	CMU	1:00	Functional Analysis of Feature 1 of Biesterfeldt (32RM1)
Rehn, Laura	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Reinke, Samuel	84	CMU UG	9:30	The Play "La historia del hombre que se convirtio en perro"
Reinke, Samuel	238	CMU 207	2:30	Of Angels and Other Worlds: An Analysis of the Spirituality and Controversy in Philip Pullman's "His Dark Materials"
Reisdorf, Nicole	305	CMU 216	3:10	Identifying an Earlier Occupation at the Biesterfeldt site (32RM1), an 18th century Cheyenne earth lodge village located in Southeastern North Dakota
Richter, Stacey	263	CMU 214	2:50	The Ailing Warlord; a Look at the Medical History of Adolf Hitler
Richter, Brian	278	CMU	9:30	F-M Community Center
Rigge, Adam	319	CMU	9:30	SPATIAL TRENDS IN CONODONT DISTRIBUTION PATTERNS AND TAPHONOMY IN KEY STRATIGRAPHIC SURFACES AND HORIZONS THAT DELINEATE GENETIC UNITS WITHIN THE IOLA LIMESTONE: UPPER PENNSYLVANIAN OF KANSAS AND IOWA
Rimal, Ayushi	64	CMU	9:30	Alcohol Abuse
Rittenour, Kristofer	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Roach, Shari	198	CMU	2:30	The Misunderstood: Communication Disorders and Emotional and Behavioral Disorders
Roark, Autumn	115	CMU 208	9:30	Life Expectancy of HIV/AIDS
Roeber, Elizabeth	105	CMU 101	10:10	A Comparative Study of Short and Long-Term Memory in College Age Females and Males
Roemer, Ashley	47	CMU	1:00	Children and Youth with Post-Traumatic Stress Disorders
Rohla, William	272	CMU 216	9:50	The United Nations and Sexual Abuse by Peacekeepers
Rolando, Dominique	48	CMU UG	3:30	Desertification in Northern China : Its impacts and possible solutions.
Ronke, Kaylyn	126	CMU	2:30	Exploring X-rays
Ross, Janelle	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Ross, Andrew	122	CMU 200D	3:30	A Possible Correlation Between GnRH and Reproductive Pheromones in Female Zebrafish.
Rothberg, Eric	73	CMU 200C	3:30	The Confucian Jews of Imperial China
Rowe, Georgianne	222	CMU 227	9:50	Botanically Speaking, What is a Fruit?
Roy, Ashley	58	CMU 200C	2:50	Pandemic Preparedness: Influenza
Roy, Ashley	100	CMU	9:30	Obesity: Genetic or Socioeconomic?
Rozairo, Damith	54	CMU	2:30	Measuring morphological changes in a piezoelectric crystal
Sailer, Cory	224	CMU	1:00	MEASURING FISH PERSONALITY: THE SHY-BOLD CONTINUUM IN ZEBRA FISH
Salgado, Merennage Ravin	275	CMU 216	10:10	Study on Web Content Control and Review of the Policy Stand Regarding Content Filtering
Samuelson, Joy	103	CMU 101	9:30	Humor is a laughing matter
Sarha, Amanda	189	CMU 101	2:00	Transforming One's Self : The Work of Lucas Samaras
Saulsbury, Adam	332	CMU 208	2:50	Middle Eastern Ecotopia: Visions for a Future Sustainable Society
Sauvageau, Tahralee	168	CMU 207	3:25	A Closer Look at Childhood Obesity: Fargo Versus the Nation.
Sauvageau, Kyle	324	CMU	1:00	"Digitizing Patient Health Records- Pros and Cons"
Sauvageau, Kyle	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Sauve, Jonas	196	CMU 227	2:00	Past-Present-Future of IT & how it has evolved.
Schaeffer, Darren	171	CMU	9:30	Self Balancing Sateboard
Schaeffer, Darren	126	CMU	2:30	Exploring X-rays
Schaible, Mandi	191	CMU	2:30	The Causes of Poor Mental Health in Young Adults
Schlanger, Clarissa	84	CMU UG	9:30	The Play "La historia del hombre que se convirtio en perro"
Schlosser, Kasey	327	CMU	1:00	Ecotopia in the Shire: Visions for a Future Sustainable Society
Schuette, Patrick	308	CMU	2:30	SEQUENCE STRATIGRAPHY AND CONODONT PALEOECOLOGY OF THE LOWER DUPEROW FORMATION (UPPER DEVONIAN) IN WESTERN NORTH DAKOTA
Schultz, Bradie	5	CMU	2:30	Psychological Disorders Relative To Sport
Schumacher, Stephanie	17	CMU 200F	3:10	STOCAR Persuasive Campaign
Schumacher, Megan	331	CMU	2:30	Midwestern Ecotopia: Visions for a Future Sustainable Society
Schwarz, Christina	159	CMU 227	1:20	Soil Magnetism of a Hearth Feature at the Biesterfeldt Archaeological Site
Seguin, Stephanie	70	CMU 101	1:40	Craft Education
Sem, Amanda	94	CMU	1:00	The Other Hangover
Shaffer, Kiere	213	CMU 101	3:10	Offensive Art: objectives and censorship in art
Sharif, Abdiqadar	323	CMU 208	2:30	cyberwar/Cyber Security-how Technology Can be used to counter Terrorism.
Sharma, Pranita	190	CMU	1:00	HPV in Fargo-Moorhead
Sharma, Abhilasha	88	CMU	1:00	Women Empowerment and Poverty Reduction - Focus on South Asia
Sherpa, Mingma	339	CMU	9:30	The Status of Women in Afghanistan
Shorma, Kathryn	204	CMU 227	1:00	El habla Camba: comprehensible to the Spanish student?
Shumake, Crystal	120	CMU	9:30	The Key to Heart Health through Your Mouth
Sigdel, Sulav	148	CMU 200C	2:30	Yen Carry Trade
Simms, Karl	58	CMU 200C	2:50	Pandemic Preparedness: Influenza
Simonson, Stephanie	253	CMU 203	3:30	Mechanical Humanity and Human Apathy in WALL-E: A Rhetorical Criticism
Situma, Stella	339	CMU	9:30	The Status of Women in Afghanistan
Slusser, Andrea	187	CMU	9:30	The Comet Assay for Visualizing DNA Damage
Smith, Jason	58	CMU 200C	2:50	Pandemic Preparedness: Influenza
Smith, Ross	212	CMU 214	1:40	Fun With Electrostatics - Explorations of the Van de Graaff Generator
Sonstebo, Kevin	125	CMU	1:00	Gang/Gang Activity and E/BD
Spencer, Jennifer	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Sperling, Katelyn	222	CMU 227	9:50	Botanically Speaking, What is a Fruit?
Stahl, Andrew	137	CMU	2:30	Building and testing a temperature controller for a low temperature NMR experiment.
Steele, Alaina	261	CMU	2:30	Energy and our Environment: Building a zero energy house.
Steen, Allison	149	CMU 203	9:30	Goverment control of the Influenza outbreak of 1918
Steinke, Casey	18	CMU	9:30	International joint ventures
Stene, Stephanie	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys Picta Bellii</i> ) in Clay County, MN
Stessen, Cory	112	CMU	2:30	Long-Term Population Trends in Painted Turtles ( <i>Chrysemys Picta Bellii</i> ) in Clay County, MN
Stock, Keegan	85	CMU 200B	2:50	Economic Impact of Drug Prohibition
Stoen, Julie	86	CMU	2:30	The Belief in the Paranormal
Stoltman, Blake	20	CMU 204	2:30	Issuing Equity Globally
Stone, Jonathan	60	CMU 200B	2:30	Prevalence of Lung Cancer Rates Due to Minnesota Smoking Ban
Stone, Megan	71	CMU	9:30	The effects of test anxiety and noise interference on the working memory system
Stone, Megan	72	CMU	1:00	Analysis of Sounds
Storseth, Carissa	329	CMU	9:30	Australian Ecotopia: Visions for a Future Sustainable Society
Stout, Jenna	19	CMU	1:00	Obstetrical Nursing
Strand, Meghan	106	CMU 101	10:30	What is a "Beautiful" Body?
Strand, Meghan	157	CMU	1:00	Birth Control: Beyond pills and condoms
Sutrisno, Randy	160	CMU	2:30	Phenotypic Consequences of the Egg Number – Egg Size Trade off in Zebrafish ( <i>Danio rerio</i> )
Suwannikom, Kessinee	80	CMU 200D	3:10	Legal Status of Burmese Refugees in Thailand

Numbers correspond with abstract listings beginning on page 31

Presentation				
Name	Number	Room	Time	Title
Sweep, Alex	14	CMU 227	2:30	The State of the Economy and its Impact on the Construction Industry
Switajewski, Sean	148	CMU 200C	2:30	Yen Carry Trade
Talcott, Sarah	16	CMU	2:30	Nursing in the Developing Country of Nicaragua
Tande, Levi	180	CMU UG	3:10	Wolff-Parkinson-White Syndrome
Taylor, Justin	46	CMU 101	1:20	Kiki Smith: Sculpture and Materials
Temple, Julie	218	CMU 227	9:30	"All the World and his Wife comes here": Esther Edwards Burr and the New England Family Structure
Thomas, Sheila	141	CMU	2:30	Men and Women View Premarital Sex Differently
Thomas, Isaac	320	CMU	9:30	China Business Trip
Thompson, Jessica	298	CMU	2:30	Primer optimization and use of RAPD markers to identify plant populations
Toward, Sarah	193	CMU	1:00	Investigation of the role of ADP concentration on PPDK-RP protein phosphatase activity.
Triebold, Stacey	77	CMU	1:00	Sexually Transmitted Diseases
Trnka, Josephine	352	CMU 203	2:00	A Feminist and Media Criticism of the HBO hit series Sex and the City
Tronnes, Levi	236	CMU 216	10:30	Glass Warmth and Light: The Application of Light in the Bigelow Chapel
Trottier, Jessica	219	CMU 204	2:00	Understanding E-mail Overload
Trout, Scott	184	CMU 218	2:50	The Role of Protest Music in Society During the Vietnam War era
Turner, Jesse	14	CMU 227	2:30	The State of the Economy and its Impact on the Construction Industry
Upadhyaya, Neharika	185	CMU	1:00	Statistical Analysis of the Student Academic Conference
Valentine, Bin	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Veeder, Jill	82	CMU UG	2:00	Determining the Factors that Influence Professional Development
Vellenga, Karen	328	CMU	2:30	European Ecotopia: Visions for a Future Sustainable Society
Vesledahl, Aubrey	344	CMU	9:30	The Status of Women in The USA: Hispanic Americans
Vondal, Brett	278	CMU	9:30	F-M Community Center
Vossen, Jeffrey	68	CMU UG	1:20	Proximal Femoral Focal Deficiency
Vossler, Jacob	268	CMU	9:30	EFFECTS OF TEMPERATURE ON ZEBRAFISH CHEMICAL CUES
Vossler, Jacob	332	CMU 208	2:50	Middle Eastern Ecotopia: Visions for a Future Sustainable Society
Wagendorf, Jenna	147	CMU 200F	2:30	Comparison of Relationship Satisfaction in Real Life and Virtual Romantic Relationships: Is Second Life Really So Different From Real Life?
Wagle, Roshan	344	CMU	9:30	The Status of Women in The USA: Hispanic Americans
Walseth, Chase	84	CMU UG	9:30	The Play "La historia del hombre que se convirtio en perro"
Wasness, Dave	131	CMU 200B	3:10	Multinational Enterprises and Working Capital Management
Wasness, Dave	247	CMU 214	10:10	Past, Present and Future of IT and how it has evolved.
Wateland, Sarah	320	CMU	9:30	China Business Trip
Watkins, Daniel	262	CMU	2:30	Net Zero Dormitory Complex...Living Off the Grid
Watkins, Daniel	321	CMU 205	10:15	The Role & Status of Women Across the Globe: China, South Africa, Uganda, & Nepal
Weiss, Andrew	303	CMU 218	10:30	Attainability of Semantic knowledge in Digital Computers
Wenzel, Hayley	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Wicaksono, Hutomo	66	CMU 200C	3:10	Exploring Virtual Worlds
Wickline, Mark	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Wiechmann, Brittni	168	CMU 207	3:25	A Closer Look at Childhood Obesity: Fargo Versus the Nation.
Wiederholt, Peter	320	CMU	9:30	China Business Trip
Wiese, Adam	107	CMU	1:00	Tibetan music and dance in a religious context
Willhoit, Nicole	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Williams, Maggie	147	CMU 200F	2:30	Comparison of Relationship Satisfaction in Real Life and Virtual Romantic Relationships: Is Second Life Really So Different From Real Life?
Willits, Ashley	341	CMU UG	10:15	The Status of Women in Ghana
Wilts, Kaley	83	CMU 207	3:00	The Asian Financial Crisis
Wisniewski, Jason	320	CMU	9:30	China Business Trip
Yannaroda, Ramses	109	CMU 205	1:00	Advanced Video Documentary Creative Research
Yanta, Travis	168	CMU 207	3:25	A Closer Look at Childhood Obesity: Fargo Versus the Nation.
Young, Katherine	23	CMU 101	1:00	The History of Pixar Animation

Numbers correspond with abstract listings beginning on page 31

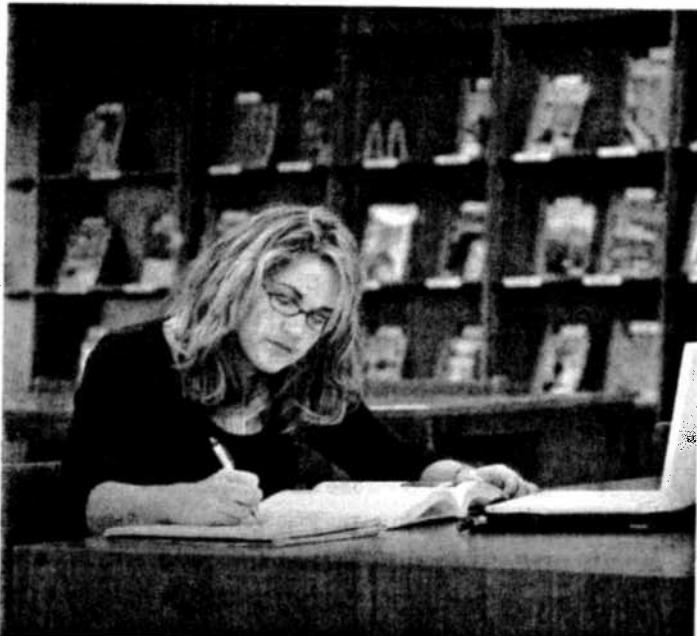
Presentation				
Name	Number	Room	Time	Title
Younggren, Amanda	257	CMU	1:00	Alcoholism and Race
Ystenes, Cory	330	CMU	1:00	Caribbean Ecotopia: Visions for a Future Sustainable Society
Zaun, Kristin	316	CMU 216	3:30	Demonstarting and Exploring the three Geographic Information Systems views
Zeiher, Laura	206	CMU 101	2:50	Women Displayed by Women; with an Emphasis on erotic Images
Zeller, Valerie	63	CMU	2:30	Town House: A Glimpse into the Future of Energy Efficiency
Zettel, Naomi	59	CMU	2:30	The Study of Child Abuse
Zwinger, Allison	93	CMU	9:30	Responding Rapidly: Saving Lives in Emergent Situations



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# Abstracts

3

## GUIDELINES FOR MANAGING PATIENTS WITH SUPRAVENTRICULAR ARRHYTHMIAS.

Jenna Hochstein • NURS • Donna Heald, advisor • CMU 9:30am

The definition of Supraventricular arrhythmias, nursing and medical interventions, medications, follow-up care, and a chosen theory relevant to the care given.

4

## THE USE OF MORPHINE WITH PATIENTS THAT ARE AT THE END OF THEIR LIFE WHO ARE SUFFERING FROM DYSPNEA

Kathryn Karlen • NURS • Mary Rousslang, advisor • CMU 1:00pm

Palliative care is a fairly new area of nursing that is for patients that are no longer going to aggressively treat their illness. Instead their goal is to manage their symptoms and live the rest of their life comfortably. Palliative care focuses on maintaining a patient's quality of life. The quality of life of a patient can be lost if their symptoms are not managed. One of the common symptoms that end of life patients may experience is dyspnea. Dyspnea is a term used for patients who are having a difficult time breath along with discomfort. There are many ways that palliative care can work to reduce this symptom, one of which is the use of opioids. This would include morphine. Through a literature review it can be proven that the use of morphine in dying patients is beneficial for dyspnea. It can improve their dyspnea without compromising their respiratory function.

5

## PSYCHOLOGICAL DISORDERS RELATIVE TO SPORT

Bradie Schultz • AT • Dawn Hammerschmidt, advisor • CMU 2:30pm

My presentation focuses on the interior of an athlete's struggles, the psychological aspect of handling athletic injuries. Whether they are season ending or minor, it focuses on the athlete's possible need for attention or what drives some to be more injury prone than others.

14

## THE STATE OF THE ECONOMY AND ITS IMPACT ON THE CONSTRUCTION INDUSTRY

Sarah Braton, Corey Bronczyk, Alex Sweep, Jesse Turner • CM • Norma Andersen, advisor • CMU 227 2:30pm

As a group we will be presenting on the recent economic activity in our country and how it has been and will be affecting the construction industry as a whole. Also we will be discussing how this affects the job outlook for students as graduates.

15

## LABOR AND DELIVERY NURSING

Jessica Althoff • NURS • Mary Rousslang, advisor • CMU 1:00pm  
I'm not certain on the exact topic I will be doing, but it will be related to labor and delivery

16

## NURSING IN THE DEVELOPING COUNTRY OF NICARAGUA

Krista Gullickson, Sarah Talcott • NURS • Jane Bergland, advisor • CMU 2:30pm

We will look at the effects of poverty and inequality on healthcare practices and perceptions as we provide nursing care in the developing country of Nicaragua. We look at both the Nicaraguan population as a whole as well as more specific research on children with handicaps through formal and informal interviews and observations.

17

## STOCAR Persuasive Campaign

Andrew Baldridge, Michelle King, Stephanie Schumacher • CMST • Jason Anderson, advisor • CMU 200F 3:10pm

This presentation will focus on a persuasive campaign developed in order to spread awareness for the student organization of TOCAR. Through our qualitative and quantitative research, we have been able to assess the general student body's awareness of this organization and their thoughts and awareness levels regarding racism on and off campus. Our presentation will highlight the main problem of the organization, our results from our qualitative and quantitative research, the two persuasive messages that we exposed our audience to, and the overall impact that the campaign had on our audience.

18

## INTERNATIONAL JOINT VENTURES

Jonathan Anderson, Shelly Anderson, Ann Henke,

Casey Steinke • FINC • Olgun Sahin, advisor • CMU 9:30am

Our group will be defining what is an International Joint Venture. How companies construct a partnership in International Joint Venture. The process and pitfalls that come with the advantages or disadvantages with International Joint Venture.

19

## OBSTETRICAL NURSING

Jenna Stout • NURS • Mary Rousslang, advisor • CMU 1:00pm

Perinatal Loss

20

## ISSUING EQUITY GLOBALLY

Brady Dickelman, Isaac Dorn, Christopher Kollitz,

Blake Stoltman • FINC • Olgun Sahin, advisor • CMU 204 2:30pm

We will be discussing various aspects of issuing equity globally. These aspects include; why issue equity globally, strategies, sources and alternative instruments, barriers, and impact.

21

## BENEFITS OF TAKING A "TIME-OUT" IN THE OPERATING ROOM

Angela Paquin • NURS • Jean Robley, advisor • CMU 2:30pm

The presentation will focus on the benefits of the surgical staff taking a "time out" in the operating room before a surgery is performed.

22

## MOTHERS' USE OF FACILITATING TECHNIQUES BEFORE AND AFTER PARENT CHILD-COMMUNICATION PROGRAM TRAINING

Tracy Kopel, Kali Maatz, Janelle Mostad • SLHS •

Louis DeMaio, advisor • CMU 227 2:50pm

Abstract The purpose of this study is to examine mothers' use of facilitating techniques before and after training in the Parent-Child Communication Program (De Maio, 2000) at the MSUM Speech Language and Hearing Center. Ten mothers of toddler and preschool children having delayed language and/or a disorder under autism spectrum will be videotaped interacting with their children before and after PCCP training. All of the children will be receiving speech and language services at the time of the mothers' training. The mothers will be taught the five components of the program while employing seven facilitating techniques in playful daily activities. This will be accomplished through instruction, demonstration, and practice. The videotapes will only be reviewed by the investigators of the study to examine the variables of the study. All videotapes will be stored in a locked cabinet and destroyed after three years concluding the study.

23

## THE HISTORY OF PIXAR ANIMATION

Katherine Young • ART • Anna Arnar, advisor • CMU 101 1:00pm

I will be presenting on the history of the Pixar Animation Company as it applies to contemporary art. I will be juxtaposing the process and development of the company with the development of an animated film. I will be going into ways Pixar has crossed from entertainment, to art, and even into science with the technological advances that they have brought to the field of computer animation. But most of all I want to focus on the beautiful art the company has created and show many preliminary works that people may not have seen before. I want to give them a better appreciation of everything that goes into making a film of this caliber and the fact that it is truly an art form.

24

## THE WORLD OF FILM CENSORSHIP: AND ITS RATINGS SYSTEM.

David Bloomingdale • FILM • C Strand, advisor • CMU 9:30am

Basically discussing the history of the film industry, and how censorship has affected it thus far, especially with the ratings system.

26

## REACTIVE ATTACHMENT DISORDER IN TODAYS SOCIETY

Jessica Meyer • SPED • Ann Goldade, advisor • CMU 1:00pm

Abstract: Reactive Attachment Disorder (RAD) is a disorder that occurs in children up to the age of five, although it usually occurs in infants. It can affect both boys and girls and all types of races. The disorder is caused from improper care and nurture of children in the early years. In

my presentation of reactive attachment disorder I am going to be talking about all aspects of the disorder and ways to prevent it. Firstly, I will be talking about the history up to current date. RAD is a fairly new disorder, the field and study of the disorder is becoming greater everyday. Secondly, I am going to be discussing the prevalence and incidence of RAD. Next, what the relationship between RAD and emotional behavioral disorders are. The definition of E/BD is very similar to that of RAD's. Fourthly, way's to screen student's for the disorder along with eligibly rules and the various classifications. Lastly, I am going to be addressing programs to implement for students with RAD.

**27**

#### **ASIAN FINANCIAL CRISIS**

**LaMara Floyd, Grant Fossum • FINC • Olgun Sahin, advisor • CMU  
UG 2:50pm**

This presentation will examine the systems that helped cause the Asian financial crisis, along with the role of the International Monetary Fund and contributing countries. It will also discuss the new policies and recovery throughout these countries.

**28**

#### **DIABETES PRESENTATION**

**Cha'von Kugler • ACCT • Mary Rousslang, advisor • CMU 2:30pm**

A presentation will be given using a poster and oral presentation regarding the basics of diabetes. This is based off a nursing preceptorship in the diabetes education unit of a local hospital. The difference between the types of diabetes will be discussed, along with prevention strategies and healthy living habits specific to diabetes.

**29**

#### **ANALYSIS OF INTERNATIONAL JOINT VENTURES**

**Emilly Kenslinger • FINC • Olgun Sahin, advisor • CMU 227 3:10pm**

This presentation will give an overview of what an international joint venture is, including the risks and benefits for a company participating in or contemplating a joint venture option as well as examples of interesting joint ventures. The struture of a joint venture will be analyzed through internal, competitive, and strategic standpoints. Each joint venture researched will be evaluated in each of the following areas: financial, technological, economic, managerial, marketing, legal and human resources. In total, the audience will understand what a joint venture is, why a company considers this option, and how businesses have benefited from international joint ventures.

**30**

#### **ZOROASTRIANISM**

**Anna Hall • ANTH • Erik Gooding, advisor • CMU 9:30am**

My research topic is about the ancient Persian religion Zoroastrianism. I am going to write about the history of the Zoroastrians, their rituals, the animals that are believed to be sacred, the significance symbolism about their fire alters, and on how this religion's impact played a part on the Persian's army soldiers. I will point out some interesting facts about Zoroastrianism. I will write about who the founder of this religion was and about when he was believed to of died. I will also write about the religion today and about the many people who still practice it.

**31**

#### **EVALUATING THE CONSISTENCY OF THE WORD FLUENCY PERFORMANCE FOR A SINGLE SUBJECT WITH EXECUTIVE DYSFUNCTION**

**Ashley Marlyn • SLP • Nancy Paul, advisor • CMU 1:00pm**

This study explored the consistency across tests that measured cognitive status to assist in refining therapy goals. The subject was a 23 year old male with diagnosis of executive dysfunction and neurogenic stuttering after removal of a pineal tumor. The word fluency section within each test (Test of Verbal Conceptualization and Fluency [TVCF], Ross Information Processing Assessment [RIPA-2], Western Aphasia Battery [WAB], and Scales of Cognitive Ability for Traumatic Brain Injury [SCATBI]) was administered to measure word fluency skills. Through descriptive statistical analysis, the word fluency portion of these tests was compared to determine consistency of the results. The results revealed that the subject did not perform the same on the word fluency portion from the selected assessments. The study analyzed factors such as the differences in the administration and scoring of the word fluency section of the SCATBI, WAB, TVCF, and RIPA-2 assessments that may have affected the subject's performance.

**32**

#### **ANALYSIS OF GENDER ROLES IN THE LATINO COMMUNITY**

**Jered Pigeon • SOC • Lee Vigilant, advisor • CMU 2:30pm**

This article seeks to find an understanding of the word machismo and from this qualitative study I could not generalize these findings to the entire Mexican population, nor did I try to. I hold a neutral view on the concept of machismo, and approached this paper with no bias and did it totally to understand machismo, not to fix it.

**33**

#### **BALANCE OF PAYMENTS**

**Melody Anderson, Jenny Centko, Kwadwo Mensah • FINC •**

**Olgun Sahin, advisor • CMU 9:30am**

Balance of Payments I. Executive Summary II. Definition of Balance of Payments (BOP) a. Define components and Calculations of: i. Current Accounts ii. Capital Accounts iii. Financial Accounts iv. Net Error and Omissions v. Reserves and Related Items III. Importance and Influences of: a. Gross Domestic Product (GDP) b. Exchange Rates c. Interest Rates d. Inflation Rates IV. How the BOP can Predict Exchange Rates a. Trade and Devaluation b. Adjustment Paths i. J-Curve Adjustment Path ii. Trade Balance Adjustment Path c. Exchange Rate Volatility's Affect on Trade Flows V. Summary and Conclusions

**34**

#### **THE PERCEPTION OF BEAUTY WHEN FACIAL FEATURES ARE HIGHLIGHTED WITH COSMETICS**

**Shantell Kuhlmann • PSY • Gary Nickell, advisor • CMU 1:00pm**

In the past, research done on facial beauty has shown that individuals prefer women with cosmetics versus without. However, the previous studies did not incorporate highlighting certain prominent facial features to see which would be found the most beautiful. This study incorporated the basics of evolutionary psychology and the previous studies done on facial attractiveness. This study proposed the eyes will elicit the most beauty when highlighted, and the lips and cheeks are more beautiful than just the face when not highlighted at all. Fifty-six participants were shown one picture of a female and they rated her perceived beauty. The lips and cheeks were found to be the most beautiful when highlighted with cosmetics compared to the highlighted eyes photo and the face not highlighted at all. This indicates that the cosmetics used to highlight the lips and cheeks do aid in facial attractiveness as proposed by evolutionary psychologists.

**35**

#### **THE INFLUENCE OF A MULTICULTURAL CLASS ON STUDENT'S ATTITUDES**

**Shantell Kuhlmann • PSY • Ernest Hallford, advisor • CMU 2:30pm**

The world is an ever changing place. Immigration has brought many cultures to the United States throughout the years, and with those cultures comes different beliefs, traditions, attitudes, and behaviors. To help people who do come from smaller, mono-cultural backgrounds, colleges and universities have put multicultural classes as a necessity in their graduation standards. This gives students the chance to experience new cultures/ethnicities. Minnesota State University Moorhead has the students take multicultural classes like the one used in the study; however, there has not been a study done to see if these classes influence the student's attitudes towards people of other cultures/ethnicities. One-hundred and twenty students, from Dr. Czynski's World Religions class, were given two surveys, one in the beginning of the semester and again at the end, to complete during class. This study's purpose was to see if this multicultural class has an influence on the student's attitudes towards different cultures/ethnicities. One of the most interesting things found was the influence of multicultural events on campus and the class increased the awareness to the similarities and differences of different cultures, adapting the way of speaking when communicating with a person from another culture, and feeling less isolated based on culture and ethnicity.

**36**

#### **BULIMIA NERVOSA AND IT'S RELATIONSHIP WITH E/BD**

**Tanya Melby • SPED • Ann Goldade, advisor • CMU 9:30am**

My poster board presentation will be about Bulimia nervosa and it's relationship with Emotional or Behavioral Disorders. I will be speaking about the incidence and prevalence of Bulimia nervosa as well as giving a brief history of the disorder. I will touch on current trends and tell about programming options and interventions. This will include classification and screening of Bulimia nervosa. I hope to educate students on this topic to help them be more aware of this life threatening disorder.

**37****CLINICAL RISK: INFECTION CONTROL IN AUDIOLOGY**

Kathleen Prlebe • SLHS • Mary Drake, advisor • CMU 1:00pm

Audiologists are exposed to many of the same dangers that medical employees are at risk for. These plausible dangers include disease and infection transmission in the workplace. The prevention of the spread of infection is extremely important to audiologists and other healthcare facility workers due to the dangers present with disease. It is thus important for healthcare workers, including audiologists, to become aware of cleaning, disinfection, and sanitation procedures in the workplace. Audiologists have a civic responsibility to prevent the spread of infectious diseases using a variety of methods. Despite special training, federal and state law, and health agency regulations, it is still the audiologist's personal responsibility to act upon infection control. Certain audiology settings (such as public schools) may encourage ignorance and weak application of infection control procedures due to large work loads and the employment environment. Due to the high risk level and plausible negligence of infection control procedures, audiologist may need to become better educated and to practice healthier infection prevention protocol in their occupational setting.

**38****COLLEGE STUDENTS' PERCEPTIONS REGARDING DEBT REPAYMENT**

Cynthia Norberg • CNSA • Donna Brown, advisor • CMU 227 3:30pm

College students do not have a realistic viewpoint regarding personal finance issues, including credit use and debt repayment. Tuition increases and easy access to credit have contributed to soaring debt levels for students. Students tend to be overconfident when it comes to the ability to repay debt. After completing an online personalized future budget simulation, based on self-reported debt amounts and average annual salary (per major), students had an opportunity to view an individualized post-college financial snapshot. Students then reported conclusions about their prospective financial future in regard to balancing debt repayment and future household expenses. College students' perceptions of difficulty in repayment showed no significant change after completion of a personalized future budget simulation. Implications for the practice of student affairs are discussed.

**39****HAVE YOU HAD THE GIGGLES LATELY? HUMOR AND IT'S EFFECTS ON WELL-BEING**

Andrea Block • PSY • Ernest Halford, advisor • CMU 2:30pm

A study investigated the hypothesis that humor has a positive effect on our psychological well-being. In the present study, participants were asked to complete two questionnaires about two specific humor styles while the other asked participants how often they had felt or behaved a certain way for a specific amount of time. We suspected that when participants used a positive style of humor it would correlate negatively with negative emotions. This would suggest that the more positive style of humor participants used the less likely they would become susceptible to depression or negative emotions. We also suspected that when participants used a negative style of humor it would correlate positively with negative emotions. This would suggest that the more they used a negative style of humor the more they could become susceptible to depression or negative emotion. The results suggested that the positive style of humor did not have a positive effect on participants well-being. However, other findings suggested that the negative style of humor resulted in a slight positive correlation with depressive symptoms. A modification of the Humor Styles Questionnaire was used to predict that certain styles of humor correlated positively or negatively with the Center for Epidemiologic Studies Depression Scale. The Self-Enhancing humor style assessed whether the individual used humor as an effective coping tool and as a healthy defense mechanism against negative emotions. The Self-Defeating humor style assessed whether the individual uses humor as a form of defensive denial or as a means of hiding one's underlying negative feelings. Both humor styles were correlated with the CES-D scale by using Pearson's Correlation Coefficient. Results indicated that there was a slight positive correlation between the Self-Defeating humor style and the CES-D scale. The Self-Enhancing humor style had no relationship with the CES-D scale. As a result, Self-Enhancing humor was not found to have positive effects on our psychological well-being.

**40****FEMALE BEAUTY: THE DISTORTED VIEW MEDIA GIVES SOCIETY**

Addie Borgh • MC • Martin Grindeland, advisor • CMU 9:30am

My presentation on the distorted views the media gives society on female beauty will present the audience with the means by which photos

in magazines have been altered, other multiple ways in which the society sends out messages as to what a female's body should look like, and some alternatives. I will also cover problems these distortions present to women of all ages. A short video clip will be shown along with some of my own visuals.

**41****DEVELOPMENT OF A HIGH THROUGHPUT SCREENING OF CYTOSKELETAL DRUGS FOR EFFECTS ON THE KINETICS OF MITOCHONDRIAL DNA REPLICATION**

Billal Mohamed, Paul Nicholls • BIOL • Ellen Brisch, advisor • CMU 1:00pm

The integrity and fidelity of mitochondrial DNA replication is thought to have a significant role in the aetiology and pathogenesis of Alzheimer's Disease. The degradation of the mitochondrial genome by oxidative stress causes a feedback loop of further oxidative stress and causes the formation of beta amyloid plaques and tau protein tangles. Evidence has shown that damaged mtDNA outreplicates undamaged mtDNA magnifying the effects. Recent studies have shown that cytoskeleton modulating drugs affect the physiology of mitochondria. Here we present a method by which drugs that may potentially effect mtDNA replication can be screened to analyse their effects. A mitochondrial heteroplasmic *Saccharomyces* model was constructed by transforming mitochondria using an *E. coli* conjugation method with modified tagged mtDNA and this was then exposed to cytoskeletal modifying agents. We also present a novel high throughput method for mtDNA purification and subsequent analysis by qPCR. Subsequent to validation of the qPCR method for detecting promotion of intact mtDNA replication, this high throughput framework may be used to screen hundreds of therapeutic candidates for activity against this likely contributor to the causation of Alzheimer's Disease.

**42****GENETIC VARIATION IN WILD AND RETAIL POPULATIONS OF ZEBRAFISH (*DANIO RERIO*) AND THEIR USEFULNESS IN ECOTOXICOLOGY STUDIES**

Brian Johnson, Megan Lisburg • BIOL • Michelle Malott, advisor • CMU 208 9:50am

Zebrafish (*Danio rerio*) are popular model organisms in experiments designed to determine the effects of chemical pesticides. Many extensively-studied industrial chemicals have been shown to cause developmental defects in zebrafish. However, the fish used in these tests were obtained from lab populations with unknown genetic backgrounds. The purpose of this study is to determine if the genetic heterozygosity of lab-reared populations of zebrafish is significantly different than wild populations. It is hypothesized that lab populations will be more homozygous than wild populations, because they are subject to smaller gene pools and less gene flow than wild populations. To test this, domestic fish were obtained and PCR amplification of five different microsatellite primers was conducted. The data will be statistically analyzed to determine heterozygosity and inbreeding levels, and compared to previously collected data from wild populations. If lab-reared populations are genetically different than wild populations, the results would have significant implications for the validity of population ecotoxicology tests.

**43****HOW ABOUT SOME PI?**

Andrea Korczak • MAED • Timothy Pell, advisor • CMU 2:30pm

My poster will contain information about the history of pi. It will cover through about 700 CE. It will also contain interesting facts about pi.

**44****SYNTHESIS AND REACTIONS OF BROMOALKENES**

Erin Driscoll, Marla Lindsay • CHEM • Craig Jasperse, advisor • CMU 9:30am

The purpose of our research is to develop new ways of synthesizing stereocontrolled chiral centers as these are useful to other chemists and also for medicinal synthesis. We have developed a protocol for the preparation of the desired bromoalkene (3). We are now exploring the reactivities of the bromoalkene with oxygen and nitrogen reagents to afford structures such as aziridine (4) and substrates (5). If the formation of substrates is successful we can then explore radical cyclizations of them to form heterocycles (6).

**46**

### **KIKI SMITH: SCULPTURE AND MATERIALS**

**Justin Taylor • ART • Anna Arnar, advisor • CMU 101 1:20pm**

This presentation will discuss the contemporary American artist Kiki Smith (born 1954) and her three-dimensional work. The presenter will examine a selection of Smith's sculpture works and the materials with which they were created, ranging from cast bronze, to porcelain, to wax. As an artist, Smith carefully chooses the materials she works with based on the messages and meanings they can contain. The significance of these choices and how they relate to the theme and subject matter of her sculptures will be analyzed.

**47**

### **CHILDREN AND YOUTH WITH POST-TRAUMATIC STRESS DISORDERS**

**Ashley Roemer • SPED • Ann Goldade, advisor • CMU 1:00pm**

This presentation will provide audience members with a clear understanding of what post-traumatic stress disorder is and how children and youth are affected. Research on the history, prevalence, incidence, and current trends will be shared, as well as various interventions educators can use when working with these children. Students who are classified as having post-traumatic stress disorder often need a variety of support. The research I will present will provide a list of support systems educators might use in their teaching experiences. Through my research and presentation, I hope that an awareness to the public about youth with emotional/social needs, specifically those with post-traumatic stress disorder, will be created; encouraging people to support the development of these children.

**48**

### **DESERTIFICATION IN NORTHERN CHINA : ITS IMPACTS AND POSSIBLE SOLUTIONS.**

**Dominique Rolando • HIST • Henry Chan, advisor • CMU UG 3:30pm**

The presentation will cover the following within the 1990-present time span: 1. Geography of China 2. Why desertification occurs 3. Impacts on the Chinese environment and society 4. Proposed solutions and work in progress 5. What is the current situation?

**49**

### **SEPTIC SHOCK AND MULTIPLE ORGAN DYSFUNCTION SYNDROME**

**Stephanie Bue • NURS • Donna Heald, advisor • CMU 2:30pm**

Septic shock is a severe condition that can result in Multiple Organ Dysfunction Syndrome (MODS). An isolated infection becomes blood bound and travels throughout the body. The infection is no longer isolated to its origin and begins to affect other body systems, resulting in MODS. The purpose of this project is to explore the effects Septic Shock has on other body systems.

**51**

### **DEEP VEIN THROMBOSIS AND COMPRESSION STOCKINGS**

**Susan Martineau • NURS • Jean Robley, advisor • CMU 9:30am**

Focusing on the Medical-surgical area of nursing, one evidence-based practice that is widely used is compression stockings. The student will research the significance of deep vein thrombosis and the effect compression stockings have upon them. Results will be presented in a poster format.

**52**

### **TRAUMA**

**Christa Powlish • NURS • Donna Heald, advisor • CMU 1:00pm**

My main topic is trauma which includes the mechanism of injury, the initial assessment of a trauma patient, and the treatment initiated right away for a trauma patient. I will also include pictures and facts on trauma along with a handout.

**53**

### **MORE HOMEOWNER LOSS? THE EFFECTS OF UTILITY CONSTRUCTION**

**Alexander Kangas • ECON • Oscar Flores-Ibarra, advisor • CMU UG 1:00pm**

This paper concerns the construction of an electric utility substation in a residential neighborhood and its adverse affects, particularly, consumer loss. A secondary function is to measure the cost of uncertainty in the decision making process. In understanding consumer behavior, economists study the theory of willingness to pay. This is essentially the first (or last) price a consumer will pay for a good/service/action. Stated slightly differently, at what price a consumer will pay to avoid a good/

service/action is termed willingness to avoid, or simply negative willingness to pay. The goal of this inquiry is to study the actual values of willingness to avoid in a negative externality situation. With a set of questions regarding expected/acceptable loss in the real estate market from the sale of a primary home due to this negative externality, I will be able to formulate a payoff matrix which includes several variables. Utilizing two question subsets, I am able to vary the underlying assumptions and observe the behavioral changes associated with the expected loss and payoff matrix and determine rather precisely what the costs associated with uncertainty are.

**54**

### **MEASURING MORPHOLOGICAL CHANGES IN A PIEZOELECTRIC CRYSTAL**

**Damith Rozairo • PHYS • Stephen Lindaas, advisor • CMU 2:30pm**

Abstract – Measuring morphological changes in a piezoelectric crystal The Piezoelectric effect was first discovered in 1880 by Curie brothers. Piezoelectricity is used much more widely than radioactivity, although it is not as well known. Piezoelectricity is used in gas lighters, receivers/microphones, clocks/watches, beam scanners and computers. The piezoelectric effect is the ability of certain crystals to deform their surface in response to an electric potential or to generate an electric potential in response to a mechanical stress. Using the atomic force microscope (AFM), the morphological change of a piezoelectric crystal due to an electric potential was measured at a sub-micron level. Damith Rozairo Senior in Physics

**55**

### **REACTION OF SODIUM CYANOBOROHYDRIDE AND SEMICARBAZIDE HYDROCHLORIDE IN IONIC LIQUIDS II**

**Ismael Banila, Amber Goraczkowski • CHEM • Gary Edvenson, advisor • CMU 9:30am**

The reaction of sodium cyanoborohydride with semicarbazide hydrochloride has been studied in various ionic liquids. NMR spectra suggest that in the ionic liquid 1-ethyl-3-methylimidazolium octylsulfate the semicarbazide adduct of cyanoborane is produced with high yield and selectivity. NMR spectra of the same reaction in the ionic liquid trihexyl(tetradecyl)phosphonium bis[oxolata(2-)]-borate suggest the formation of cyanoborane polymer. NMR spectra of the same reaction suggest the formation of both the semicarbazide adduct of cyanoborane and a borazine derivative in the ionic liquid 1-ethyl-3-methylimidazolium bromide.

**56**

### **RESPIRATORY SYNCYTIAL VIRUS**

**Emily Karas • NURS • Jane Bergland, advisor • CMU 1:00pm**

Respiratory Syncytial Virus (RSV) is a viral infection that affects the respiratory system, especially in premature infants. The poster presentation will present facts on the virus as well as prevention and treatment of the virus.

**57**

### **THE PRESS & THE PARASITIC PRESIDENT**

**Nicholas Boushee • POL • Paul Kramer, advisor • CMU 204 9:50am**

A parasite works in close proximity to a host, getting what it needs to survive while draining the host of essential nutrients needed to stay healthy. For the past 8 years President George W. Bush has successfully stretched and exploited his powers to get what he wanted; whether it was a war, information censored or just the ability to ignore questions. All this came at the expense of the credibility of the media, a quality story and in short, the truth. This draining of the truth and guidance of the media to false conclusions in an aim to move policy and the President's agenda cannot be summed under the common label of a mutually beneficial relationship, but more accurately a symbiotic relationship characterized as parasitic.

**58**

### **PANDEMIC PREPAREDNESS: INFLUENZA**

**Ashley Roy, Karl Simms, Jason Smith • COMH • Gina Kelly, advisor • CMU 200C 2:50pm**

Pandemic Preparedness: Influenza An influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in epidemics worldwide with enormous numbers of deaths and illness. (World Health Organization, 2005). WHO has developed a global influenza preparedness plan, which outlines the responsibilities of WHO and national authorities in the event of an influenza pandemic. (WHO, 2005). Our group decided to research the effectiveness of Pandemic Preparedness using data sets from healthcare databases. In this project we will be determining the

effectiveness of Pandemic Preparedness for influenza in the United States, Europe, and Asia. We will accomplish this by identifying preparedness policies and ongoing research projects that are in place currently in these three geographical areas. Asia will be dealt with as a whole because of the origins of the influenza virus in the region and most of the cases reported have originated within the specific region. North America will deal with the U.S. and Europe will focus on preparedness within the country of England.

**59**

### **THE STUDY OF CHILD ABUSE**

**Kayla Koenig, Brittany Marvin, Elizabeth Rawal, Naomi Zettel • COMH • Gina Kelly, advisor • CMU 2:30pm**

"Disease is broadly defined as any disruption in the function and structure of the body...an abnormal state in which the body is not capable of responding to or carrying on its normally required functions (Fleming, 2008:43). Child abuse can be defined as a disease because it is an act or a failure to act toward a child, which results in physical and/or emotional harm (World Health Organization, 1999). There can be many different reasons why child abuse is prevalent in today's society. We will be conducting a study to research the different causes of child abuse. In order to conduct this study we will look at different demographics by using mainly secondary sources relevant to epidemiology and describe the different methods used to undertake the study.

**60**

### **PREVALENCE OF LUNG CANCER RATES DUE TO MINNESOTA SMOKING BAN**

**Jenna Greff, Kristine Loge, Jonathan Stone • COMH • Gina Kelly, advisor • CMU 200B 2:30pm**

The research topic being examined is tobacco smoking and its impact on lung cancer prevalence and incidence rates. The effects of smoking and secondhand smoke exposure on public health will be examined. Also, examined were the results of the smoking ban that recently went into effect in the state of Minnesota. In 1975, the Minnesota Clean Indoor Air Act was put into effect to protect people from the dangers of secondhand smoke. The Freedom to Breathe provision was signed into law on May 6, 2007 to protect employees and the public from the health hazards of secondhand smoke. The Freedom to Breathe provisions prohibited smoking in virtually all indoor public places and indoor places of employment, including bars, restaurants, private clubs, retail stores, and many others. This ban most likely has had an impact on the smoking community and may even adjust or alter prevalence and incidence rates of smokers and nonsmokers with lung cancer. The trends of smoking-related lung cancer both prior to and after the smoking ban were implemented in the state of Minnesota will be analyzed. Lung cancer is the leading cause of cancer deaths in the nation. Even if you are a nonsmoker, being exposed to secondhand smoke can have devastating effects on your body. The hypotheses include: 1) the smoking ban will have a positive impact on public health by likely lowering the number of people diagnosed with lung cancer; and 2) the smoking ban will most likely decrease the number of those who will suffer from lung cancer.

**61**

### **THE PREVALENCE OF OBESITY IN U.S. ADULTS**

**Dayna Ebnet, Hyunjin Hwang • COMH • Gina Kelly, advisor • CMU 9:30am**

Obesity is a rising health concern for adults in the United States. In 2006, the Centers for Disease Control and Prevention found the prevalence of obesity to be 33.3 percent in adult males and 35.3 percent in adult females (CDC, 2009). Adults are defined as any individual aged eighteen and older. Obesity is linked to numerous chronic illnesses such as cardiovascular disease, high blood pressure, stroke, cancer, and type II diabetes (CDC, 2009). It is estimated that "obesity may soon overtake tobacco as the number one factor in people's death for there are 128 million Americans over the age of 20 who are overweight" (Pears, 2009, p. 1). This presentation will explain our general mythology on the topic of obesity. It will discuss our specific demographics, relevance to epidemiology, sources and methods used to undertake this study, and the potential impact and analysis of our study. (Sources: Centers for Disease Control and Prevention. (2009, January 7). Overweight and Obesity. AND Pears, M. (2009). American Obesity: An Important Issue.)

**62**

### **GO BANANAS FOR FAIR TRADE**

**Roy Haberstick • INTL • Andrew Conte, advisor • CMU 1:00pm**

Is the World Trade Organization's attempt to liberalize international trade deliberately and unfairly hindering the development of third world countries? I will discuss the origins of the Banana Trade War and the

roles played by the World Trade Organization, United States of America, European Union, African Caribbean & Pacific Countries, and Chiquita Banana International.

**63**

### **TOWN HOUSE: A GLIMPSE INTO THE FUTURE OF ENERGY EFFICIENCY**

**Anthony Batesole, Karmen Dostal, Heather Harris, Andrew Hoard, Nichole Kinzer, Briana Langowski, Tony Nguyen, Ashley Oppegard, Kristofer Rittenour, Janelle Ross, Kyle Sauvageau, Hayley Wenzel, Valerie Zeller • PHYS • Linda Winkler, advisor • CMU 2:30pm**

Construction and Various aspects of building an efficient town house within a city limit. Different aspects include plumbing in a way to maximize water usage, electrical component to enable energy independence, and basic building techniques to ensure lower cost.

**64**

### **ALCOHOL ABUSE**

**Bryan Boucher, Bridget Felchle, Brooke Hohenstern, Ayushi Rimal • COMH • Gina Kelly, advisor • CMU 9:30am**

The research project being conducted is on alcohol abuse and its epidemiological factor. The project will be conducted on the affects that alcohol has on the body and organs. Other health related problems with this issue are also taken into consideration and how they can be helped. The demographic area that will be discussed in the presentation is middle aged adults in the United States. As we all know, alcohol abuse has been a major issue in today's world. As a group, we would like to focus on this matter more in depth and help in spreading awareness throughout our presentation.

**65**

### **ORGANIC-DYE SENSITIZED SOLAR CELLS**

**Eric Berget, Zachary Morseth • CHEM • P. Asoka Marasinghe, advisor • CMU 1:00pm**

Organic-dye-sensitized solar cells are of interest because they offer solar energy conversion at a low cost with minimal impact to the environment, compared to the traditional rare metal dye-sensitized solar cells. Organic-dye-sensitized solar cells employing two sensitizers synthesized by the Knoevenagel condensation of 4-dimethylcinnamaldehyde with one active hydrogen containing compounds were tested for their energy conversion efficiency and stability. The resulting sensitizer were compared against two known sensitizers, a natural product found in pomegranate and a porphine.

**66**

### **EXPLORING VIRTUAL WORLDS**

**Christopher Fried, Hutomo Wicaksono • GCOM • Michael Ruth, advisor • CMU 200C 3:10pm**

With the increasing demand for affordable education in a floundering economy, in conjunction with ever increasing technologies, virtual world class rooms are being more and more a viable reality. This past fall, the Graphic Communications department set out to explore the viability of such virtual class rooms in Second Life. This presentation seeks to explain the successes and shortcomings we experienced in this environment, as well as to discuss steps that can be taken to move forward in this direction or others.

**67**

### **OBSESSIVE COMPULSIVE DISORDER**

**Kara Kamphuis • SPED • Ann Goldade, advisor • CMU 2:30pm**

As a teaching candidate it is important to be well versed in all types of disabilities and disorders. With our ever changing society and educational system, teachers will encounter more incidences of students with Emotional and or Behavioral Disorders within their schools. This presentation will address a subset of Emotional Behavioral Disorder, Obsessive-Compulsive Disorder. I will acknowledge the areas of prevalence, diagnostic criteria, screening and assessment, instructional and inclusion practices as well as program and support models.

**68**

### **PROXIMAL FEMORAL FOCAL DEFICIENCY**

**Jeffrey Vossen • AT • Christopher Huot, advisor • CMU UG 1:20pm**

Proximal Femoral Focal Deficiency(PFFD) is a very rare condition that effects the growth of the femur.

**69**

### **EXPERIENCING ECOTOURISM IN COSTA RICA: COMPARING RESEARCH WITH REALITY**

**Chandra Buck, Emily Dyce, Katrina Fahrman, Eric Falde, Debra Monson, Megan Olson, Lisa Peete, Nicole Pfleger • SPAN • Mary Thrond, advisor • CMU 205 2:30pm**

Previously sent by mistake but not with all group members. We will expound on the various aspects of ecotourism: conservation of biodiversity, sustainable development and reduction of poverty. We will compare and contrast our research with the experiences we have on our study tour in Costa Rica during March. Those experiences will entail a family stay in an impoverished area in the mountains, a stay in an ecolodge/working dairy farm in the cloud forest of Monteverde and a visit to a natural reserve in the rainforest on the Pacific coast.

**70**

### **CRAFT EDUCATION**

**Stephanie Seguin • ART • Anna Armar, advisor • CMU 101 1:40pm**

Many art programs require foundation courses in art history and art theory. The purpose of these courses is to introduce students to themes, issues and history that have laid the groundwork for how and why art has evolved. However, there is often a noticeable lack of such education regarding craft. Therefore many students, especially those involved in the fields deemed craft, are left eager for more information. In more recent years, some schools and organizations have taken an active interest in providing craft education. Regardless, there is still much more that can be done to involve craft education into the majority of art programs.

**71**

### **THE EFFECTS OF TEST ANXIETY AND NOISE INTERFERENCE ON THE WORKING MEMORY SYSTEM**

**Megan Stone • PSY • Christine Malone, advisor • CMU 9:30am**

The present study investigated the effects of test anxiety on an individual's efficient task performance and task shifting abilities with noise as an external distracter. The attention control theory suggests that anxiety impairs performance because anxious individuals' working memory capacities are unable to concentrate on their target task because of some form of external or internal distracter. It was expected that high-test anxious individuals would have been distracted by background noise and have impaired memory due to their central executive being occupied with negative self talk, decreasing the storage capacity and function of verbal information presented visually, decreasing their task performance when completing a mathematics quiz. However the results indicate that noise does not interact with anxiety or impair an individual's efficient task shifting abilities, but does affect that amount of task shifting errors made. Anxiety also seems to play a role in affecting a person's accurate task performance but does not impair their task efficiency.

**72**

### **ANALYSIS OF SOUNDS**

**Megan Stone • PSY • Magdalene Chalikla, advisor • CMU 1:00pm**

The cocktail party situation is a term used to describe a state in which an individual is able to maintain focused attention in a place where there are many distracting environmental sounds. Past research has shown that adults have the ability to maintain focus on one particular environmental sound, such as a person they are speaking to, despite other distracting noises. The ability to separate a set of simultaneously occurring sounds into separate sources has been called streaming. Various factors influence streaming, such as the timbre and pitch characteristics of individual sounds, as well as time onset differences. Earlier work supports that it takes time for auditory streams to develop. In the current study we plan to examine stream formation by manipulating the number of sounds in a mixture (2-5), the amount of time delay in the onset between sounds (0, 200, 400 ms) and the mode of presentation (once or repeated). We plan to test 60 adults who will listen to 72 short sound clips and will be asked to identify how many sounds were in the clip and whether or not a certain target sound was present. The entire experiment will be run by media lab.

**73**

### **THE CONFUCIAN JEWS OF IMPERIAL CHINA**

**Eric Rothberg • HIST • Henry Chan, advisor • CMU 200C 3:30pm**

Far away from the world's Jewish centers was a community in China. They were the Jews of Kaifeng, Honan province. They fared well under the government and did not suffer extensive persecution like so many Jewish communities in Europe. They had a rich culture, thoroughly

unique in that, though it had strong Chinese influences, it maintained its Jewish identity for hundreds of years. Preserving their Judaism meant adapting to Han Chinese culture while keeping unique in their own ways; though, their community would eventually assimilate into oblivion. By the time the 1600s had arrived, they had developed a thoroughly unique brand of the Jewish religion.

**74**

### **STIMULUS PLAN: WHAT IS IN IT FOR MSUM ?**

**Nazeera Rahman • FINC • D Clapp, advisor • CMU 207 10:30am**

President Barack Obama's stimulus plan will benefit Minnesota. The overall plan intends to revive the economy in the short-term with the stimulus package that will inject \$787 billion into the U.S economy in the form of direct spending and tax cuts. Minnesota will receive more than \$9 billion from the stimulus package. The package will create jobs; build better transportation, infrastructures and health care programs. In addition an estimated 41,000 Minnesota families will be eligible for higher education tax credit. Most spending will go directly to public schools, colleges and universities — in part to prevent faculty layoffs and education cuts. Though the stimulus package has many facets, a number of them will affect Minnesota State University Moorhead and its financial health. This paper will focus on the part of the stimulus package as it benefits Minnesota State University Moorhead.

**75**

### **THE PROBLEM OF HELL**

**Jennifer Jaszcak • PHIL • Phillip Mouch, advisor • CMU 204 10:30am**

My paper will explore the Problem of Hell. Specifically, I will be considering the various traditional Christian views of Hell and how it relates to Salvation. Further I will discuss how and if any of these views are compatible with the Christian view of God. For example, can an Omnipotent Being create souls that are determined to go to Hell? How does Omnipotence and Divine Foreknowledge interrelate with the question of whether or not people are able to choose salvation? Finally, why would an Omnipotent Being create souls who would eventually be damned to Hell?

**76**

### **MEDICAL PLURALISM: ITS POTENTIAL FOR HELPING TO MEET THE NEEDS OF NEW AMERICANS**

**Jenerine Guffey • ANTH • Bruce Roberts, advisor • CMU UG 1:40pm**

Medical pluralism is the application of combining complimentary and alternative medicine (Cam) with scientific medical practices. This paper will explore the benefits of using holistic medical interventions in light of the increasing cultural diversity in the United States. Several case studies will focus on American medical practitioners' perceptions of health and wellness versus the more traditional views and practices in the Hmong and Haitian immigrant communities. The conclusion will suggest the positive benefits of a cooperative approach to combining Cam with scientific western medicine. These findings have implications for the formulation of future policy and practice of social work, particularly when working with diverse populations.

**77**

### **SEXUALLY TRANSMITTED DISEASES**

**Veronica Leaf, Katie Pruitt, Stacey Trilebold • COMH • Gina Kelly, advisor • CMU 1:00pm**

Abstract As medicine advances with technology and research, young adults are becoming less aware of how their actions are consequently affecting their bodies and their health. Through our study of sexually transmitted diseases of 20-24 year olds in Cass County, North Dakota there are many outcomes to be determined. These outcomes are at the expense of the person infected because many sexually transmitted diseases have little or no symptoms. With provided statistics, we can determine when and how an outbreak may occur. We can also determine at what age we should be aiming our targets towards in education about sexually transmitted diseases to young adults. We can also work on allocating time and money towards programs for prevention and education. Our study on sexually transmitted diseases can affect the delivery of health care in the future by utilizing what we already know about sexually transmitted diseases and the tools and resources we have. As adults, these diseases are 100 percent preventable. Sexually transmitted diseases are important in the study of epidemiology because they are currently on the rise and tracking needs to be done in order to educate, control, and prevent the spread of these diseases and infections to others. Epidemiology is based on the foundations of host, agent, and environmental factors. Each sexually transmitted disease has a causative agent that leads to infection or disease in the host of the

human being. Environmental factors such as socioeconomic status, geographic location, availability to health care services, and education on sexually transmitted diseases all play a part in controlling the spread of these diseases. We selected Cass County for our evaluation due to its higher population to give us a more accurate conclusion.

**78**

#### **ASSESSMENT IN DEVELOPMENTAL DELAY FOR ADAPTIVE SKILLS**

**Tera Davidson • SPED • Camille Brandt, advisor • CMU 1:00pm**

What is functional/adaptive assessment for students with developmental delay, and how does this tie into the individual education plan? Our team conducted a literature review on this topic and created a survey for professional educators teaching in Minnesota schools within the field of special education. This poster session will highlight both the collaborative research process as well as progress within the project itself.

**79**

#### **YOUTH BASEBALL INJURIES**

**Beth Fruechte • AT • Dawn Hammerschmidt, advisor •**

**CMU 207 1:00pm**

This presentation will briefly cover the anatomy of the shoulder and the elbow as well as the differences in anatomy between youth and adults. The anatomy will give a background on injuries seen in the elbows and shoulders of youth baseball players. The effects that the phases of throwing, pitch types, and pitch count have on the injuries seen in youth baseball players will also be addressed. Lastly, some prevention techniques for avoiding these injuries will be discussed.

**80**

#### **LEGAL STATUS OF BURMESE REFUGEES IN THAILAND**

**Kessinnee Suwannikom • LGST • Paul Kramer, advisor •**

**CMU 200D 3:10pm**

Many Burmese have fled to Thailand in search for refuge for variety of reasons since 1984. Currently, there are approximately 396,700 Burmese refugees residing in various refugee camps in Thailand. Until today, Burmese refugees still have limited legal rights and some of them are still unrecognized under the Thai law. They are unable to leave the camp to seek for employment and education. This presentation will discuss about the history, legal status, and improvements of legal rights and quality of life of Burmese refugees in Thailand today along with suggestion of actions that could be taken to enhance the legal status of these refugees in Thailand.

**82**

#### **DETERMINING THE FACTORS THAT INFLUENCE PROFESSIONAL DEVELOPMENT**

**Jill Veedor • SPED • Ann Goldade, advisor • CMU UG 2:00pm**

The goal of this research is to understand the factors, which influence students (preservice education majors) participating in professional organizations and conferences. A review of literature on the subject reveals participants gain positive effects from professional development. The article reviews inspired development of administering a survey to students at the college level. The survey has been distributed within the College of Education at MSUM. Vast arrays of students were chosen to participate in the survey; the students were selected to reflect the different levels in the education program. The implementation of the survey was intentionally administered to students at a variety of levels within their educational field. The survey results and updated findings will be presented during this session.

**83**

#### **THE ASIAN FINANCIAL CRISIS**

**Katlin Lee, Kaley Wilts • FINC • Olgun Sahin, advisor •**

**CMU 207 3:00pm**

As we are all aware, the U.S. is facing a financial crisis. We are not the only developed economy in search of financial aid to boost our economy and ease the global credit crunch. In times of troubled economies, a crisis evolves and many countries will seek help from different sources. Both local and global issues will impact people worldwide. We will look at a financial crisis at a global level, and focus more on the Asian financial crisis and describe some of the challenges citizens and governments are facing now and in the past. Even though the Asian financial crisis happened over ten years ago, we can still find trends in our economy today that are similar to what happened then. The crisis has taught us that there needs to be better data and international surveillance. Regulation and supervision must be increased as well. Even in the U.S.

we can relate to the financial troubles other countries have been impacted by. With proper implementation, we can hopefully reduce some of the turmoil worldwide.

**84**

#### **THE PLAY "LA HISTORIA DEL HOMBRE QUE SE CONVIRTIÓ EN PERRO"**

**Jeremy Grabinger, Kaitlyn Kirch, Samuel Reinke, Clarissa Schlangen, Chase Walseth • SPAN • Cecilia Mafla-Bustamante, advisor • CMU UG 9:30am**

"The story of the man who transformed into a dog" (1957) by the Argentine playwright Osvaldo Dragún is an excellent example of the theater of the absurd. It tells the sad story of a man forced by economic strife to become a dog in order to earn a salary. This play is presented by five Spanish students inspired by studying this work in Professor Cecilia Mafla's Introduction to Spanish Literature class. They have studied extensively the language and context of this work in preparing the play. The students will gain a greater understanding of the language and the play through its presentation entirely in Spanish.

"Historia del hombre que se convirtió en perro" (1957) es una obra del dramaturgo argentino Osvaldo Dragún. La obra muestra el teatro del absurdo y de la残酷, presentando la triste historia de un hombre que se ve obligado a tomar un trabajo como perro debido a su situación económica desplorable. Inspirados en el curso introductorio de literatura hispánica de la Profesora Cecilia Mafla, cinco estudiantes de español actuarán en esta obra. En preparación para esto, los participantes han estudiado extensivamente el lenguaje y el contexto de esta obra de teatro, la cual les ha brindado una excelente oportunidad para que pongan en práctica sus conocimientos lingüísticos.

**85**

#### **ECONOMIC IMPACT OF DRUG PROHIBITION**

**Keegan Stock • ECON • Oscar Flores-Ibarra, advisor •**

**CMU 200B 2:50pm**

The purpose of my study is to measure the production of illegal drugs, the opportunity cost of not legalizing drugs, potential health risks, the and effectiveness of the war on drugs.

**86**

#### **THE BELIEF IN THE PARANORMAL**

**Julie Stoen • ANTH • Erik Gooding, advisor • CMU 2:30pm**

The word 'paranormal' refers to the abnormal phenomena that cannot be explained by existing sciences. This word elicits thoughts of ghosts, psychics, magic, tarot cards and so much more. For a long time now paranormal activity and peoples belief in it has been an interesting topic in the study of religion and belief. Through my research I plan to explore different forms of paranormal activities, like the ones stated above, reasons why people will believe in these things and I would also like to look at the media's use of paranormal belief in television and movie. In the world we are living in these days people seem to be so bored with real life that they not only seek out entertainment by paranormal phenomena but also start to believe in it. I would like to discover how it is that so many people can come to believe in something that seems to have little support in the worldwide community. I will talk about some evidence that has been found that may prove the existence of the paranormal and what skeptics believe about this evidence. People must keep in mind that others belief system are made up of their own common sense, intuition, faith and things already known to be scientifically true. Also people need to know that proof should be guided by logic, reason and personal experience. It is with these two systems of thought that I would like to figure out how they work together with the belief in the paranormal.

**87**

#### **HONORING THE SPIRITS HAITIAN VODOU RITUALS**

**Natalie Petersen-Meneffe • ANTH • Erik Gooding, advisor •**

**CMU 9:30am**

I will discuss the rituals and of the people who practice vodou (or vaudou) in Haiti and clarify what exactly their beliefs are. Vodou originates in West Africa and is a blend of traditional African beliefs and some Christian ideas. Practitioners believe in a supreme god, Bondye ("Good God"), and also in other lesser spirits called loa, which are associated with a corresponding Catholic saint. There is a great emphasis on placed on honoring ancestors and other spirits. Vodou is a fascinating religion with a rich spiritual history.

**88**

**WOMEN EMPOWERMENT AND POVERTY REDUCTION - FOCUS ON SOUTH ASIA**

**Prarthana Adhikari, Abhilasha Sharma • ANTH • Bruce Roberts, advisor • CMU 1:00pm**

Our topic is based on the women empowerment and poverty reduction in developing countries and it is mainly focused on south Asian countries (Nepal, India, Pakistan, Bhutan, Bangladesh, Maldives, Afghanistan and Sri Lanka). We are going to examine on economic and social aspects and their effects on their lives from urban to rural areas of these countries. We hypothesized that women empowerment is possible through education and awareness related gender equality and justice that deals to poverty reduction in a society. We are going to display various data and statistics on our poster presentation based on secondary analysis of existing literature.

**89**

**FEMALE DOMESTIC WORKERS IN THE MIDDLE-EAST: NEW RACIAL HIERARCHIES**

**Natassja Gunasena • WS • Heather Nesemeler, advisor • CMU UG 2:30pm**

A feminist/ anti-racist analysis of the condition of female domestic workers in the Middle-east, particularly in the context of globalization and world economic hierarchies.

**90**

**THE POSITIVE SIDE OF SOFT NEWS: PERSONALIZATION, DRAMATIZATION, AND INFOTAINMENT**

**Joleen Billman • POL • Barbara Headrick, advisor • CMU 200E 3:10pm**

From its conception, American mass media has always struggled to find a balance between hard and soft news. In the 21st Century, journalists face internal and external pressures to achieve higher ratings, readership, and revenues. To attain these goals journalists are favoring soft news over hard news more than ever. What is the result of such favoritism? Framing complex political issues within the techniques of soft news, American journalists forgo a complete analysis of political issues which may create an adverse affect in an audience's comprehension. However, some journalists and scholars argue that framing political issues within the context of soft news transforms abstract concepts into graspable ideas for the "Average Joe." In some instances, framing political issues with soft news style will have a positive impact upon audiences.

**91**

**A VIEW OF NEWSPAPERS: FROM THE BOTTOM**

**Austin Fay • MC • Martin Grindeland, advisor • CMU 208 10:30am**

A few points I will address: -New trends in media consumption -Bringing out the random access reader -Controlling the Internet juggernaut -New profit models in sustaining the daily newspaper -Harsh realities that reshape daily media services It will be a speech succinctly addressing some of the pressing issues in the field of Mass Communications today. It will be large in breadth, and will be the culmination of research, bits of articles, term papers, conversations with professionals and professors and a good sense about where media is heading in the years to come. I will also address the role of the new media in the age of convergence in relation to democracy.

**92**

**STUDY ABROAD IN JAPAN! INFORMATIONAL WEBSITE**

**Mia Ness • JAPN • Takanori Mita, advisor • CMU 2:30pm**

For this project I am going to create a website with information about the study abroad program in Japan. I am going to put up a poster board with some information, and a link to the website I create. The website is going to talk about Japanese culture, places to go, food, University life, etc. Basically I want to create a place online where MSUM students interested in studying abroad in Japan can go to research it further. I studied abroad at Kanto Gakuin University, in Yokohama, Japan for one semester Fall of 2008. So this will all be drawn from the awesome experience I had studying abroad. I am a Graphics Communications major, which is why I've decided to design a website. The website will be mainly CSS (cascading style sheets) and HTML based with some Flash ActionScripting. With this project I want to highlight my skills as a web designer and also share my experiences from studying abroad in Japan. So essentially I am representing both the Graphics Communications, and Japanese Language departments with my project.

**93**

**RESPONDING RAPIDLY: SAVING LIVES IN EMERGENT SITUATIONS**

**Allison Zwinger • NURS • Donna Heald, advisor • CMU 9:30am**

Health care providers often experience situations in which they must respond quickly in order to save a patient's life. It is important that health care providers, especially novice nurses, are educated on how to act in emergent situations. Health care providers should know that if they are the lone rescuer who found an unresponsive individual down on the ground, they should give CPR for two minutes before leaving to call 911. There are also a number of different medications that should be administered in certain situations. When patients experience a cardiac or respiratory arrest in the ICU, they are hooked up to continuous cardiac monitoring. Health care providers can analyze the ECG strip to help them understand what medications to administer. This poster presentation will present various interventions and the different medications that are used with a number of heart rhythms, such as asystole, ventricular fibrillation, ventricular tachycardia, atrial fibrillation, and atrial flutter. The poster will also provide information about the mechanism of action of the drugs that are used during these emergent situations, such as dopamine, atropine, and epinephrine.

**94**

**THE OTHER HANGOVER**

**Amanda Sem • SOC • Deborah White, advisor • CMU 1:00pm**

Parental substance use can lead to a number of problems for young children, though the full extent is still undetermined. This presentation reviews studies on the different consequences of parental substance use on children published between 1990 and 2009. Distinct areas of effects are identified including physiological, emotional, and behavioral outcomes stemming from parental substance use. Research studies are compared and contrasted to highlight the relevant findings and their implications, and suggestions are made for further study.

**95**

**MOTIVES AND MORALS**

**Tatiana Gracyk • PHIL • Randy Cagle, advisor • CMU 204 10:10am**

The morality of an action is commonly thought to be determined by the outcome of the act, and motivation is not always taken into account when the act is judged for morality. I will argue that the motivation of the agent, or the person performing the act, must be taken into account for the act to be accurately morally judged. This thesis will be supported using the arguments of Immanuel Kant and David Hume.

**96**

**TRADE IMPACTS AT THE BIESTERFELDT SITE: AN EXAMINATION OF METAL ARTIFACTS**

**Matthew Rademacher • ANTH • Rihita Dalan, advisor • CMU 2:30pm**

This project concerns the metal artifacts recovered from the Biesterfeldt Site (32RM1) during the 2008 MSUM archaeology field school. Biesterfeldt is a single component earth-lodge village located along an abandoned meander of the Sheyenne River near Lisbon, North Dakota. It was occupied during the eighteenth century by a possible group of Cheyenne during their transition from sedentary village dwellers to nomadic bison hunters. Cultural materials recovered from site excavations include lithics, pottery, bone, and metal artifacts. About fifty metal objects were recovered, mostly unidentifiable fragments, but including several arrow points and a possible knife blade, as well as several other historic pieces deposited both during and after occupation. The purpose of this research is to document all metal objects as well as perform a basic materials characterization on the metal projectile points to determine if they were produced by European manufacturers, or blacksmithed by the natives themselves. Analysis using reflected light microscopy will be performed on the points and possible knife blade to determine metallurgical characteristics and give insight into production processes. This work will be done in consultation with Dr. R. Colson of the Earth Sciences Department. The final aspect of the project will be a comparison of point styles obtained last year to those previously recovered from Biesterfeldt by Strong in 1938 as well as others to document similarities or differences.

**97**

**ALTERNATIVES TO RESTRAINT USE IN THE PSYCHIATRIC SETTING**

**Amanda Oachs • NURS • Jean Robley, advisor • CMU 9:30am**

Patients at in-patient psychiatric units are often restrained. A restraint prevents a patient from moving his or her arms, legs, body, or head, which may include any type of physical or mechanical device, material, equipment, or even medication. This is an issue for both patients and

nursing staff as restraint use can have both psychological and physical risks. Therefore nurses should try to implement alternative approaches to use in place of restraints whenever possible such as implementing special nursing observation, quiet room use, de-escalating techniques, and seclusion if applicable. The nurse should also assess the patient's problem and behavior so that the least restrictive approach is implemented.

**98**

### THE ECONOMIC GEOGRAPHY OF THE NETHERLANDS IN THE COLONIAL PERIOD

**David Binkard • HIST • Margaret Sankey, advisor • CMU 200D 2:30pm**

The economy of the Netherlands was profoundly affected by their physical location on the European continent. The Netherlands lay at the crossroads of two great routes of trade; from England to mainland Europe, and from the Baltic nations to the Mediterranean. The Netherlands was situated at the center of these two routes. The geography of the Netherlands was favorably suited to sustain ports and thus, trading cities. The Netherlands were placed at the mouths of many of the great rivers in Europe, including the Rhine, Meuse, and Scheldt. Each of these rivers was important to the Netherlands, especially the Rhine, which could be followed all the way to Switzerland. These rivers allowed access to goods and materials in central Europe that could be carried and sold at fairs in Antwerp and Amsterdam. It was with the profits from these fairs that the Netherlands built their infrastructure, erected windmills to drain their lands of flood water from the North Sea, built port cities, and built ships. Antwerp was initially the center of trade in the Netherlands, but with the Spanish revolt in the late 16th century, the focus of trade shifted from the then Spanish controlled Antwerp to Amsterdam. While most of Europe was consumed by internal affairs, such as the culmination of the Thirty Years War in present day Germany and famines in the Mediterranean, merchants with key business connections increasingly migrated to the Netherlands. The Netherlands boomed with the introduction of preserving Herring. To fit Christian restrictions on meat, fish proved to be a valuable staple to the diet of much of Europe, and the Dutch capitalized on this fact with their preserved Herring. The Dutch could trade their Herring in the Baltic nations in exchange for grains, particularly from Poland and Russia, and sail the grain through the Straits of Gibraltar to be distributed in the famine afflicted Mediterranean. The Dutch could then take goods and luxuries from the Mediterranean trade cities and distribute them in Northern Europe. These two trades, the Herring Trade and the Grain Trade proved to be key in the economic geography of the Netherlands.

**99**

### FUNCTIONAL ANALYSIS OF FEATURE 1 OF BIESTERFELDT (32RM1)

**Ashley Rehling • ANTH • Michael Michlovic, advisor • CMU 1:00pm**  
My research focused on a large pit (feature 1) excavated at the Biesterfeldt site (32RM1). This is a large pit situated on a slope on the northern perimeter of the site. To determine the function of the pit I examined the artifacts, profiles, pictures, sediments, biological remains, and other related information. In particular I analyzed the layers of sediments in the pit, how they differed from each other (based on physical characteristics such as soil texture, structure, and color of each layer). The sediment layers, artifacts, and ecofacts were used to determine the function of the pit and to learn approximately how long it took for the pit to infill. This has implications for the duration of the settlement on use of the entire site.

**100**

### OBESITY: GENETIC OR SOCIOECONOMIC?

**Brittany Marvin, Ashley Roy • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am**

Obesity: Genetic or Socioeconomic? Due to the ever increasing numbers of children and adults with obesity issues, this research will study the affects of genetics and socioeconomic factors within people faced with this issue. Looking into this problem from the sociological perspective could give a different insight than the typical medical perspective. It is a health related problem that affects many people of all ages and all over the world and it is becoming increasingly alarming amongst younger children. Additional research is needed to see how these variables affect obesity and to solve the issue though this research. The research will help hypothesize that there is a direct correlation between genetics and socioeconomic factors and its effects on health status relating to obesity. This research will use existing knowledge from previous research gathered from peer reviewed journals and the General Social Survey to get a better understanding of the

possible correlation between these variables. Through the research there is a hope that the consequences of this study will determine that both genetics and socioeconomic factors play a role in obesity and both of these variables can be looked at to try to change the increasing numbers of obesity cases.

**101**

### COMMOTIO CORDIS: CARDIAC CONCUSSION

**Sarah Klindworth • AT • Christopher Huot, advisor • CMU 9:30am**

Commotio Cordis is caused by a blunt force trauma to the chest that causes the heart to go into ventricular fibrillation. How common is this in athletics, who is most affected, is it possible to prevent this from occurring and how do you treat it?

**102**

### RESPONSIBILITY FOR REFUGEE PROTECTION

**Cristina Norland • INTL • Andrew Conte, advisor • CMU 208 1:20pm**

Refugees are people who have fled their home nation due to unrest or for fear of persecution and are now essentially stateless, with the system of protection they once enjoyed lost. Refugees are not a new phenomenon; however, the problem is more severe today than ever before due to closed borders as well as political, economical, and cultural nationalism. Based on participant observation from a Liberian refugee camp in Ghana, interviews, and other sources I will address who is responsible for refugee protection focusing on situations where the host nation is less developed. While host nations are held responsible for refugees, with assistance from the international community, they often fail or simply cannot meet the protection requirements. The international community, particularly the United Nations High Commissioner for Refugees should take a more prominent role in protecting the rights of refugees.

**103**

### HUMOR IS A LAUGHING MATTER

**Katie Beyer, Joely Davidson, Joy Samuelson • WS • Patricia Wisenden, advisor • CMU 101 9:30am**

Males and females have differences in the gray matter and Prefrontal Cortex (PFC) areas of their brain, causing them to interpret and appreciate humor differently. To gauge this, gathered data on the background information and mood from a group of students. We then gave a female and a male group some humorous material and documented their reactions to it. Lastly, we incorporated a follow up questionnaire and had participants evaluate their mood and how funny they found the material presented. We then tested for effects of sex and mood on interpretation of humor. The results of this study show the differences in how males and females are affected by humor, and the differences in the way it was interpreted.

**104**

### GENDER DIFFERENCES ON ON-LINE COMMUNICATIONS

**Courtney Covey, Kayla Ewing, Samantha Fike • WS • Patricia Wisenden, advisor • CMU 101 9:50am**

Research shows communication style differs between sexes. Women tend to value emotion and social connection in communication, while men value problem solving more. Research on online communication reinforces this; women view short messages as unfeeling or rude, where as men see short messages as "to the point." To study the manifestations of these differences, we studied 300 outgoing written messages on the popular network, Facebook. In examining informal communication on a social networking site, gender continues to influence the way we relate. Our outcomes can be explained a number of ways; they follow language patterns and gender difference in spoken or face to face communication. They also reflect the brain differences in Broca's and Wernicke's area of language. They are also a part of online gender performance, where one must signal their sex through words.

**105**

### A COMPARATIVE STUDY OF SHORT AND LONG-TERM MEMORY IN COLLEGE AGE FEMALES AND MALES

**Charleen Heinz, Julia Oxenreider, Elizabeth Roeber • WS • Patricia Wisenden, advisor • CMU 101 10:10am**

Over the past few years scientists, have discovered a number of differences between the anatomy of human females and males. These anatomical differences vary from macroscopic differences in fat storage to microscopic differences in brain structure. In the process of researching the structural differences of the sexes we did not find any papers studying the differences in short and long-term memories of female and male college aged students. Our study investigated how these structural differences in the brain affect the ability to store and

recall simple long and short-term memories. We tested the differences between the sexes using four different memory tests, two each for short and long-term memory. We hypothesized that testing would find a difference in memory recall between male and female college aged students. We believe differences of short and long term memory recall found between the sexes will be important. The findings may alter teaching strategies in education. These data are important because to the extent of our knowledge no study has ever been conducted studying memory differences in this age group.

## 106

### WHAT IS A "BEAUTIFUL" BODY?

Suzanne Al-Kayali, Brenda Johnson, Meghan Strand • WS • Patricia Wisenden, advisor • CMU 101 10:30am

What is beauty? Is it a cultural construct or is it a biological representation of fertility? Scientific studies have shown that a waist to hip ratio of 0.7 and a body mass index of 20kg/m<sup>2</sup> is considered to be optimal for fertility and mate selection. We randomly selected five Playboy playmates from each decade and gathered information for the average American female from the Center for Disease Control's NHES and NHANES surveys to examine the differences in the "optimal" female form. The results of our study showed that "beauty," at least partially, is culturally constructed due to a downward shift in WHR and BMI in Playboy Playmates in the 1960s. Our results also showed that the American female is closer to the biological standard of highest fertility and "beauty."

## 107

### TIBETAN MUSIC AND DANCE IN A RELIGIOUS CONTEXT

Adam Wiese • ANTH • Erik Gooding, advisor • CMU 1:00pm

Tibetan religion is a mix of Mahayana Buddhism and older indigenous traditions called Bon. Within each religious tradition music and dance are important ritual practices. I will explore the symbolism associated with styles of chanting, singing, dancing, and the musical instruments involved with the rituals. I will also look into the influences the two religions have on each other within the context of music and dancing. Tibetan religious practice is popular among non-Tibetans in the United States; my presentation will look at western appropriation of Tibetan music and instruments.

## 108

### PHARMACOLOGICAL TREATMENTS FOR CHILDREN WITH BEHAVIORAL DISORDERS AND THE NURSING IMPLICATIONS

Simone Poitras • NURS • Jean Robley, advisor • CMU 2:30pm

Children with psychological disorders have always been subjects of great concern within society. Meanwhile, pharmacological treatment of children with behavioral disorders is a controversial issue. The proposed presentation will examine the use of neuroleptic medications among the population of children with behavioral and/or mood disorders. The goal is to lay out both the pros and cons of using neuroleptic medications among this population. These topics will be presented from the point of view of a psychiatric-mental health nurse. Actions and considerations for a nurse working with this group of patients will also be discussed.

## 109

### ADVANCED VIDEO DOCUMENTARY CREATIVE RESEARCH

Lucas Dooley, Benjamin Efron, Ann Gusewelle, Amber Johnson, Carrie Kantrud, Melissa Kraemer, Joseph Kramer, Haleigh Overseth, Mark Wickline, Nicole Willhoit, Ramses Yannaroda • FILM • Raymond Rea, advisor • CMU 205 1:00pm

Students in Film 472, Advanced Video, engage in a series of service learning projects by working in collaboration with non-profit community clients to produce documentary work. The four videos that emerged from this year's course were made in partnership with: -The Fargo-Moorhead Humane Society -The Fargo-Moorhead Community Bicycle Workshop -The Fargo Theatre -The Moorhead Police Department This creative research was augmented and supported by a rigorous study of documentary ethics, allowing each video production group to weigh their creative production decisions within the larger context of historical documentary production. Student production groups will present each video and allow a time for questions after screening.

## 110

### SOCIOLOGICAL VIEW OF FAMILY ORIGIN AND HIV/AIDS

Kyle Kramer • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am

The purpose is to understand, analyze, and familiarize ourselves with the health and illness aspects in a social context. One topic that not only

occurs in the United States but the whole world is the battle with HIV/AIDS. In order to explore this issue, I had to use GSS (General Social Survey) which is a tool that analyzes data between two variables. The variables I have chosen are 1) have you ever been tested for HIV/AIDS, and 2) country of family origin. These two variables show an importance towards the economic and sociological side of this battle. Based on some information have gathered, Europe seems to be on the rise for HIV/AIDS, which supports the fact that Europe is one of the leading nations in drug/needle use in the world. I will discuss if living and growing up in an under-developed country has an impact of the lives on children as well as the parents. It will also look at if the family origin and beliefs/social aspects have an impact. All these topics will be discussed in much more detail as well as seeing if there is really something we can do to improve the lives of others who are less fortunate.

## 111

### PIONEERING MOLECULAR TECHNIQUES IN THE TREMATODE, ORNITHODIPLOSTOMUM PTYCHEILUS

Char Blinstock, Matthew Cole • BIOL • Michelle Malott, advisor • CMU 207 1:30pm

The most prolific group of internal metazoan parasites within the phylum of Platyhelminthes is Digenea. *Omithodiplostomum ptychocheilus* is a type of parasite within the subclass Digenea that is closely related to *Schistosoma* sp., a well studied human blood fluke. *O. ptychocheilus* is a relatively unstudied organism that could be used to learn more about host-parasite relationships and how they benefit the parasite's reproductive success. During the complex lifecycle of *O. ptychocheilus*, the parasite burrows and encysts in the brain of one of its secondary hosts the fathead minnow, *Pimephales promelas*. While in the metacercarie stage, the parasite is no longer free-swimming and lies dormant within the minnow brain. Following encystation the fathead minnow's behavior is affected making it more prone to predation by a pescavorous bird within the final stage of *O. ptychocheilus*'s lifecycle. Within the final host, the metacercarie develop into sexually mature adults. *O. ptychocheilus* can be reared under laboratory conditions making it a possible model organism for host-parasite behavioral studies. Molecular techniques have not been used to study *O. ptychocheilus*. This study is an ongoing attempt to pioneer molecular exploration in this species using known genetic markers in related trematoda. Primers from the well studied *Schistosoma mansoni* were employed to search for preserved microsatellite regions for use in future population studies. These primers are being tested for their ability to identify metacercarie DNA from the brain that was isolated from infected minnows. Data will be presented regarding the optimization of the molecular techniques used for this approach.

## 112

### LONG-TERM POPULATION TRENDS IN PAINTED TURTLES (CHRYSEMYS PICTA BELLII) IN CLAY COUNTY, MN

Susan Bury, Morgan Effelt, Dustin Fetzer, Theresa Floer, Ashley Horton, Brian Johnson, Ashley LaPlante, Megan Lisburg, Kelly Markham, Rory Oxton, DeAnna Rastedt, Stephanie Stene, Cory Stessen • BIOL • Donna Stockrahm, advisor • CMU 2:30pm

In a long-term study, 700+ painted turtles (*Chrysemys picta bellii*) have been live-trapped during the summers of 2001-2008 in Clay County, MN to study growth rates, survival, population characteristics, and movements. Two sloughs, approximately 1 km apart and 2.7 ha and 6.2 ha in size, were trapped with 3 traps per slough. Turtles were weighed, sexed, measured, marked (by scute notches), and released on the shoreline of the slough of capture. Since 2006, turtles were also PIT tagged for more accurate individual identification. Our main objectives for 2008 were to combine the data from all years of the study in order to determine long-term trends in turtle populations as well as to examine movements more closely. In general, almost all of the turtles in the study were recaptured multiple years, but very few were recaptured every year. Also, turtles were found to have widely-varying degrees of movement; some moved from slough to slough throughout the study period while others remained in the same slough the entire time. Additionally, many turtles went "missing" for several years before being recaptured, often reappearing in a different slough. These data suggest that turtle home ranges may not be limited to one slough, and may encompass sloughs outside of the study area. This is supported by preliminary radiotelemetry data from one turtle in 2008 which moved outside of the study area. More thorough analysis of the data is planned to determine if male turtles move more widely than females.

## 113

### EMOTIONAL/BEHAVIORAL DISORDERS AND HOW THEY RELATE TO ATTENTION DEFICIT HYPERACTIVITY DISORDERS

Tera Davidson • SPED • Ann Goldade, advisor • CMU 2:30pm

The history and prevalence of E/BD and ADHD and how they relate to one and other. A poster with research based facts will show the similarities and differences between the two disorders. Some early signs to detect the disorders and how to use early intervention and coping skills.

## 114

### HIP-HOP AND MASCULINITY

Travis Barrows • HIST • Paul Harris, advisor • CMU 200D 2:50pm

My project will look at the hypermasculinity in modern rap and hip-hop music and how it seeks to re-masculinate the men in the culture. As rap artists are predominantly black males, the emasculation comes from the oppression from white patriarchy and black females. Thus, the violence and misogyny in rap music is an attempt to re-masculinate black males. I will show the various images and ideas they use to achieve this as well as looking at how these ideas are similar to other methods white males have used throughout American history to achieve the same goal.

## 115

### LIFE EXPECTANCY OF HIV/AIDS

Dustin Beachem, Lori Krump, Deena Madhikarmi,

Autumn Roark • COMH • Gina Kelly, advisor • CMU 208 9:30am

This research project examines the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency (AIDS). Life expectancy of HIV/AIDS in the four major sections of the United States, will be examined which include: the West, Midwest, South, and Northeast. By looking at HIV/AIDS life expectancy in different sections of the United States, we can see how it affects certain sections more. As HIV/AIDS continues to progress, it will be extremely important for healthcare workers to stay informed about the treatments, advances, and incidence of HIV/AIDS in their area. We will also include the life expectancy among different races in the United States, the African-Americans, Caucasians, and Hispanics. This information will be compared from a local level to a national level. The Center for Disease Control and Prevention (CDC), Center for Medicare and Medicaid Services, Morbidity and Mortality Weekly Report (MMWR), and the National Association of County and City Health Officials are sources for information. Also a primary source includes information from people living with HIV/AIDS their experiences. HIV/AIDS infection has been progressing since its first appearance in 1981, both in mortality and cost of living. With so much data being researched, epidemiologic knowledge on this topic will assist managers, doctors, nurses, healthcare workers, etc. so they can plan, control, and decide what to do about this deadly virus. In conclusion life expectancy research will be used to understand and make prevention and care programs strengths and weakness and make projections for future concerns with the disease in our study population.

## 117

### BINGE DRINKING AND ALCOHOLISM AMONG COLLEGE STUDENTS

Katie Anderson • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am

Binge drinking among college students (ages 18-24) has been identified as one of the greatest health issues occurring in universities across the nation. Binge drinking and alcoholism can tremendously affect the health of a student, which can further affect his or her academic performance. By using the General Social Survey as the main resource, this study will focus on the affects alcohol has had on the average college student's life, both through creating health issues and hindering academic performance. This study will particularly look at the amount of alcohol consumed in the average week of a young adult (ages 18-24). Clearly our campus at Minnesota State University Moorhead has recognized binge drinking and alcoholism as an issue, as they have recently initiated Health 122: Alcohol and College Life as a requirement for all incoming students. Completing this study will give students across the Minnesota State University Moorhead campus an opportunity to see nation-wide and local statistics to verify this information, and to possibly reflect how alcohol has affected their personal life as well.

## 118

### PLANTS IN WITCHCRAFT, MAGIC AND RITUAL

Kelli Kline • ANTH • Erik Gooding, advisor • CMU 1:00pm

Abstract Plants and their use in religion have a history in the world that goes back as far as civilization. The contexts in which a particular plant or herb is utilized differs but two uses that have been fairly universal are

witchcraft and ritual (ceremonial). This paper explores the use of plants and plant products among and between the cultural traditions of Native North Americans, South Americans, Africans, and Europeans. I will describe the plants and how they accompany the specific ceremonies or used in witchcraft as well as what the expected or intended outcome of each may be. By region, the plants used and their intended effects are similar, however, the manner in which they are used differs based on the cultural beliefs.

## 119

### THE ABIOTIC INDUCTION OF SYSTEMIC ACQUIRED RESISTANCE (SAR) IN CUCUMIS SATIVUS ALTERS PHOTOSYNTHETIC PRODUCTIVITY AND CELL WALL STRUCTURE: EVIDENCE FOR INTERACTIONS BETWEEN THE PLANT AND ITS ENVIRONMENT.

Susan Bury • BIOL • Andrew Marry, advisor • CMU 2:30pm

UV radiation is a known plant stressor that decreases photosynthetic productivity and crop productivity in general. Many plants have a non-localized immune response called Systemic Acquired Resistance (SAR) that protects them from other stresses such as pathogens and herbivores. A key intermediate component in the signal-transduction of SAR is Salicylic Acid (SA), and the inoculation of plants with SA has shown to increase resistance of cell walls with more proteins, carbohydrates, and peroxidase activity. This study is investigating the potential for the abiotic induction of SAR to also increase the cucumber *Cucumis sativus*' tolerance to UV stress. *C. sativus* were twice inoculated with SA and then exposed to UV radiation for a day. The photosynthetic productivity was quantified by measuring the rate of oxygen production during photosynthesis and respiration phases with an oxygen electrode. In addition, the amount of chlorophyll was measured with a Chlorophyll content meter and a Fluoropen. Protein content and peroxidase activities were also measured. An increase of UV tolerance with SA treatment would suggest an environmentally friendly method to reduce loss of productivity to the stress of UV radiation in natural intermediate components that produce SAR.

## 120

### THE KEY TO HEART HEALTH THROUGH YOUR MOUTH

Crystal Shumake • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am

Oral health has historically been over looked as a serious health condition. The purpose of this study is to show the correlation between dental disease, specifically periodontal disease, and the effects it has on your heart. Research found in peer reviewed journals suggests that the bacteria from your mouth are the same bacteria that can be found around your heart. By using The General Social Survey and secondary resources this study is going to research heart conditions that could possibly be linked to the bacteria from your mouth. This research will hopefully make people aware that the mouth is the gateway to the rest of the body by educating them on the overall systemic implications that can occur by not properly caring for your teeth. (Source: Guynup, S. (2006). Our Mouths, Ourselves. Oral and Whole Body Health , 4 - 5.).

## 121

### FLINTKNAPPING AS EXPERIMENTAL ARCHAEOLOGY AND AS ART

Sarah Nelson • ANTH • Michael Michlovic, advisor • CMU 1:00pm

I will be showing how flintknapping as experimental archaeology is very useful in helping to understand how prehistoric hominins utilized their environment, and how flintknapping is an art form today.

## 122

### A POSSIBLE CORRELATION BETWEEN GNRH AND REPRODUCTIVE PHEROMONES IN FEMALE ZEBRAFISH.

Jessie Breyer, Andrew Ross • BIOL • Michelle Malott, advisor • CMU 200D 3:30pm

Pheromone communication is an important form of communication to aquatic organisms due to their environment and is only beginning to be understood (Wyatt 2003, Gerlach 2006). This study will focus on the effects of reproductive pheromones in female zebrafish. Female zebrafish are affected by pheromones in two major ways. Females can suppress each others reproduction, using pheromones to reduce each others egg production, accompanying a dominant and submissive behavior pattern (Gerlach 2006). In the same way, pheromones from male zebrafish have been found to up-regulate egg production of females they are kept with. To better understand this method of reproductive competition and pheromone communication in fish, the pathway from the pheromones to the behavior must be studied. Gonadotropin- Releasing Hormone, (GnRH) may play a role in the mechanism (Gerlach 2006). GnRH is a highly conserved decapeptide that has many functions, some related to reproduction, not all of which

are understood. Two isoforms, GnRH2 and GnRH3 have been demonstrated to be present in zebrafish brain tissue. This experiment tests GnRH expression levels in the brains of female zebrafish exposed to pheromonal stimuli. RNA for GnRH3 will be analyzed and PCR amplified to quantify levels of GnRH3 expression in each fish. It is expected that the GnRH3 levels in female fish exposed to other females will be lower than that of female fish exposed to male zebrafish. This result would indicate GnRH3 plays a role in reproductive signaling in zebrafish.

## 123

### GAMMA RAY SPECTROSCOPY

Alexander Freed, John Harris, Devin Kasper • PHYS • Linda Winkler, advisor • CMU 2:30pm

The purpose of gamma ray spectroscopy is to understand the energetics of the interaction of gamma rays with matter in many modern physics and nuclear phenomena. The experiment began with samples being placed within a NaI scintillation detector. Through the process of scintillation, gamma rays were converted into lower energy photons. These photons released electrons, via the photoelectric effect. The electrons are accelerated through the photomultiplier tube by a potential difference. An electronic device called a Multi-Channel Analyzer read the signal from this cascade. The results showed conservation of energy and momentum and also exhibited the Compton-scattering effect from which the rest mass of the electron was measured.

## 124

### THE SOCIAL NETWORK OF AIDS IN U.S. SOCIETY

Meghan Nelson • SOC • Susan Humphers-Glnter, advisor • CMU 9:30am

AIDS has been a growing world concern ever since its discovery in 1981. My research analyzes the social network behind the disease of AIDS, specifically what social groups within U.S. society are affected most by the disease. Key variables such as age, class status, race, and gender will be analyzed to determine if there are any patterns or trends among AIDS victims and the transmission of the disease. Details about the history and symptoms of AIDS and the treatments offered will be included, as well as the factors that can increase or decrease the transmission of the disease. In conclusion, the research will attempt to explain what patterns, if any, are involved in the spread of AIDS, and what social groups within society are more prone to contract the disease (i.e. prisoners, drug injectors, etc.). An analysis of four variables from the General Social Survey, including age, race, class status, and relationship to AIDS victims will be used as a research tool. These variables will help to establish any trends in social groups by showing where AIDS is most prevalent in U.S. society. Acting upon this research, more preventive measures could be put in place to protect those at high risk of contracting AIDS.

## 125

### GANG/GANG ACTIVITY AND E/BD

Kevin Sonstebo • SPED • Ann Goldade, advisor • CMU 1:00pm

This project identifies areas of concern in relation to gang membership and emotional/behavioral disorders. It will include review of the current knowledge and available intelligence concerning youth violence and gang behavior, which considers risk factors for violence and gang formation, functions served by violence and gang membership, and strategies that can be either beneficial or ineffective as well as its links to Emotional/Behavioral Disorders. Emotional/Behavioral Disorders will be defined, as will Gang Criteria. It will provide history of gangs, identifies the number of gangs and gang members, and looks at the demographics in the United States. I will also provide information in identification of gangs in our area, warning signs of activity or participation, as well as trends. The role of functional assessment of behavior and the student is also considered, followed by some cautionary notes concerning grouping high-risk students together for intervention. Gang prevention will also be looked at in regards to initiatives to prevent and reduce gang activity with emphasis on empirically validated or promising programs. Data and information have been collected from archives, interviews, published reports, training documents, and websites. This will also assist in identification of behavior traits and proper classification of students with needs.

## 126

### EXPLORING X-RAYS

Rajesh Dhakal, Kaylyn Ronke, Darren Schaeffer • PHYS • Linda Winkler, advisor • CMU 2:30pm

The discovery of X-rays has lead to a number of adjacent advancements. The medical field has taken advantage of X-rays small

wavelength to map out bone structures, and the diffraction pattern from Bragg scattering has allowed scientists to determine the atomic layout of crystals. This lab uses Bragg scattering to experimentally verify the wavelengths of the X-rays produced from Molybdenum, and uses the Duane-Hunt relationship to determine Planck's constant.

## 127

### CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 1: TESTING THE PROTEIN HYPOTHESIS

Philip Haugrud, Jeffrey Miller • BIOL • Brian Wisenden, advisor • CMU 200E 2:30pm

CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 1: TESTING THE PROTEIN HYPOTHESIS Jeffrey Miller, Philip Haugrud, Sara Aleem, Andrea Pitz, Leah Costa, Char Binstock, Andrew Marry & Brian Wisenden Biosciences Department, Minnesota State University Moorhead When a predator attacks prey, damaged prey tissue releases chemical information that reliably indicates an actively foraging predator. Prey uses the released semiochemicals to cue anti-predator behavior to reduce the probability of being preyed upon. Until recently, literature supported that these cues were contained in specialized epidermal "club cells" of fishes. Hypoxanthine 3N oxide (H3NO) is hypothesized to be the active ingredient in alarm cues, and this compound is also hypothesized to be produced by epidermal club cells. A new study, however, has shown that fathead minnows (*Pimephales promelas*) respond to damaged tissues that had not yet developed the club cells. In our study we will attempt to isolate the particular component of the tissue that is causing the alarm reaction found in fathead minnows. We separate molecular contents of fathead skin extract by size using centrifugation. Large molecules (> 10 kDa) are where proteins occur. Small molecules (> 10 kDa) contain molecules such as hypoxanthine 3N oxide (H3NO) occurs. The size of molecule that elicits anti-predator behavior will help determine the nature and origin of the molecule responsible for inducing the anti-behavior.

## 128

### JAPAN'S ATTITUDES TOWARDS HOMES FOR THE ELDERLY

Wendy Masinde • JAPN • Chizuko Shastri, advisor • CMU 200E 2:50pm

There has been a dramatic increase in the number of people over 65 years living in homes for the elderly. This is because family members, who have traditionally been charged with caring for the elderly, are finding it increasingly difficult to fulfill this responsibility because of a number of factors. This decrease in the ability to care for the elderly undermines the Confucian principle of filial piety that demands that the family be responsible for the care of the aged. This practice has caused stigmatization against the elderly living in these institutions and their families. This presentation analyzes the attitudes surrounding this phenomenon.

## 129

### CARDIAC REHABILITATION: PROMOTING CARDIAC WELLNESS

Wendy Masinde • NURS • Donna Heald, advisor • CMU 208 10:10am

Cardiovascular disease is one of the major killers of Americans every year. Cardiac rehabilitation is a program that attempts to stabilize, slow the progression or reverse cardiovascular disease. The program also helps patients achieve physical and mental functioning after cardiovascular disease. This presentation discusses what goes on in these programs, the criteria for admission in such programs, benefits of enrolling in these programs and attitudes towards them.

## 130

### INTERMITTENT EXPLOSIVE DISORDER

Seth Lachowitz • SPED • Ann Goldade, advisor • CMU 9:30am

My topic is on Intermittent Explosive Disorder. Intermittent explosive disorder (IED) may best be thought of as a categorical expression of recurring impulsive aggressive behavior. Although diagnostic criteria issues have made research on (IED) difficult, new information and research remain ongoing. Given that previous research in the area of impulsive aggression has been highly informative concerning the genetics, biology, and pharmacological treatment of this behavior, continuation of research on (IED) is crucial. I will be presenting several important aspects of IED including its history, what causes (IED), risk factors and complications associated with (IED), and finally what treatments and drugs are being used to combat this disease.

## **131**

### **MULTINATIONAL ENTERPRISES AND WORKING CAPITAL MANAGEMENT**

**James Krause, Amanda Lindseth, Dave Wasness • FINC • Olgun Sahin, advisor • CMU 200B 3:10pm**

We will be discussing multinational enterprises and their strategies for working capital management. A multinational enterprise is a firm that has facilities and assets in foreign countries. We will talk about the impact, benefits and problems of MNEs with regard to international power and influence. We will illustrate the role of current assets, current liabilities and short term financing and how decision making weighs heavily on the implementation of working capital management.

## **132**

### **STONE TOOL TECHNOLOGY OF A HISTORIC AMERICAN INDIAN SITE**

**Sean Gordon • ANTH • Michael Michlovic, advisor • CMU 1:00pm**

This research explores the stone tool technology of Biesterfeldt, a historic period American Indian site. 298 pieces of lithic debris and 18 stone tools were recovered through excavations in the summer of 2008. A fuller understanding of how stone tool technology was utilized at this site may be obtained by comparing this site with other sites from the region. This comparison will indicate whether the Biesterfeldt site differs from earlier sites within the region. Early analysis of the material from this site and nearby sites indicates several differences in stone tool technology. This evidence is seen through differences in the types of materials used, flaking debris, and stone tools. These differences appear to be significant changes from earlier styles of stone tool technology.

## **133**

### **THE TEACHING OF EVOLUTION AND CREATIONISM IN US PUBLIC HIGH SCHOOLS**

**Barbara Michel • BIOL • Linda Fuselier, advisor • CMU 200E 3:30pm**

High school science teachers in the US have a professional duty to follow state standards for education and teach the often-controversial subject of biological evolution to their classrooms. This presentation is focused on what high school teachers in the United States actually teach and how that compares to what the state standards say they should teach. It gives a brief overview of the history of evolution education, and then summarizes survey studies of what teachers report they teach, what students report they were taught, possible links between teacher acceptance of evolution and their willingness to teach it, and legal responsibilities teachers have to teach evolution in their high school science curriculums.

## **135**

### **QUALITY PROGRAMMING AND STUDENTS WITH EMOTIONAL BEHAVIORAL DISABILITIES;FACTORS TO CONSIDER.**

**Fay Pary • SPED • Ann Goldade, advisor • CMU 200B 3:30pm**

As educators we are involved in a profession that relies on research. Educational research is based on our children, how they learn and how we can teach them in a manner which will help them learn. Teachers are researchers. Having a program of quality, and knowing what makes it so, is an important foundation for our future educational services to be successful. What factors should be considered when evaluating a program which serves students with emotional behavioral disabilities? Participants will leave with an introductory understanding of research based quality programming indicators, research based strategies that align with these indicators and a mnemonic tool (PA<sup>2</sup>PER CLIP) to help them remember the importance of quality programming considerations.

## **137**

### **BUILDING AND TESTING A TEMPERATURE CONTROLLER FOR A LOW TEMPERATURE NMR EXPERIMENT.**

**Fenner Colson, Andrew Stahl • PHYS • Ananda Shastri, advisor • CMU 2:30pm**

We built a temperature controller for a Nuclear Magnetic Resonance Spectrometer to control the temperature of samples within the spectrometer. Using an aluminum box as our frame and 120VAC power, we integrated the necessary components. We included a transformer to reduce the power to 60VAC and a rectifier to convert to DC. Additionally we wired capacitors in parallel to filter the rectified voltage. Fuses were put in place to prevent any overload in the system. We measured the temperature gradient within the NMR sample coil, and also determined the temperature stability. This is defined as the amount the actual temperature fluctuates within the sample coil as a function of the set temperature.

## **138**

### **THE BATTLE OF STOLEN CULTURE THROUGH THE MEDIUM OF ARTISTIC PROPERTY**

**Kayleigh Johnson • POL • Andrew Conte, advisor • CMU 204 1:00pm**

Even from the start of time where man was primitive, art was present in human life. Art is one of the most aesthetically pleasing elements of culture and should be cherished and preserved for future generations to enjoy. The illicit transfer of art and culture threatens the safe keeping of such treasures, as art and other cultural artifacts; for frequently they are purchase and sold in under the table agreements without proper compensation and consent. Combating the illicit transfer of art on the front lines are groups such as the United Nations and their specialized agency UNESCO. Together as a world we should make an international effort to stop the illicit transfer of art and cultural artifacts to ensure the safety, and preserve them to enjoy the stories they tell for generations to come.

## **139**

### **ENERGY DRINKS HYPE OR HARM?**

**Alec Hinrichs • AT • Dawn Hammerschmidt, advisor • CMU 9:30am**

My display board will portray the ingredients in todays energy drinks as well as the harmful effects and some other fun facts.

## **140**

### **OTAKU HEALTH RISKS**

**Leigh Harper • SOC • Susan Humphers-Glnter, advisor • CMU 2:30pm**

Otaku, by American understanding is used to refer to an obsessive collector or fan of any given subject or matter. The phenomenon of American Otaku comes from the original "Otaku" from Japan. The correlation between the Japanese Otaku suicide and general unhappiness and unhealthy lifestyle, to the American Otaku groups will be explored. The Otaku under study is the group that shows signs of social anxiety, which may be linked to the amount of time an individual dedicates to their hobby. The Otaku groups presented in this study are the individuals that present socially restrained personalities or socially awkward behaviors with few close friends and a shy reserved demeanor as they focus much of their attention on their hobbies and collecting. This presentation will illustrate some of the health risks and at risk behaviors that occur as a result of an individual's dedication to their hobby or collection. The time spent by an Otaku's hobby takes time away from building social connections and further alienates the individual from "normal" society. Much has been studied on the suicide rate in Japan and America, but very little focus is on the phenomenon in regards to "Otaku," in the United States. Using preexisting literature and psychology studies in CAS, as well as information from the General Social Survey Cumulative Data File, 1972-2006. I will further define the health risks that Otaku are at risk for. With this presentation, I will attempt to define some of the health risks for Otaku, as well as strategies for recognizing and helping such individuals.

## **141**

### **MEN AND WOMEN VIEW PREMARITAL SEX DIFFERENTLY**

**Shella Thomas • SOC • Susan Humphers-Glnter, advisor • CMU 2:30pm**

STIs (sexually transmitted infections) and STDs (sexually transmitted diseases) have been rising through the years among young adults. Women seem to be potentially in harms way for unintended pregnancies, and an array of STIs and STDs. Premarital sex can be a difficult topic to talk about with parents, teachers, counselors and even friends. What has started out as a moral issue has turned into potential growing health issues. American society seems to have accepted the moral issue; however, morality has many more dimensions that stretch between right and wrong. There are significant differences in how men view premarital sex compared to women. Data will be analyzed from the GSS-General Social Survey along with other peer reviewed articles.

## **142**

### **KITSUNE AND INARI: THE STUDY OF THE JAPANESE FOX DEITY IN INARI AND OTHER JAPANESE RELIGIONS**

**Leigh Harper • ANTH • Erik Gooding, advisor • CMU 9:30am**

Studying the religious beliefs, myths, legends and writings of others, The figures presented under study are Inari and her companion Kitsune. Inari, of Shinto beliefs, is a benevolent female figure that is the deity of fertility, rice, agriculture, industry, and worldly success. Kitsune (the fox) the pure white beast that Inari alighted upon for the descent among mortals. Which being came first, the Rice Deity Inari, or the magical

Kitsune? Which figure has a more significant impact upon the people of Japan? Kitsune and Inari appear in two of the most popular religions Shinto and Buddhism in varying degrees. I will define the Inari and Kitsune in the contexts of their Buddhism and Shinto identities, with an emphasis on the fox figure as the central deity. My sources will come from several texts that study Inari religion in depth as well as Buddhist and Shinto literature and modern literature.

#### 143

#### MANGA RELIGION: RELIGION EXPRESSED WITHIN A GRAPHIC CONTEXT OF JAPANESE MANGA

Leigh Harper • ANTH • Erik Gooding, advisor • CMU 1:00pm

Manga, literally translated, means "whimsical pictures", which is the popular graphic novel "comics" of Japan. I will explore the use and depiction of religion within Japanese manga. Attempts will be made to show the different religions as they are shown in manga format, with emphasis on the 3 main religions of Japan, Buddhism, Shinto, and Christianity. This presentation will try to show the different contexts that these religions are depicted, whether positively or negatively, and how integrated they are in the story telling of modern Japan.

#### 144

#### 'PEACE IS OUR PROFESSION' INSIDE THE UNITED NATIONS SECURITY COUNCIL

Troy Olson • POL • Andrew Conteh, advisor • CMU 204 1:20pm

The United Nations Security Council is primarily tasked with the maintenance of international peace and security. Throughout the sixty-plus years since the creation of the United Nations, this unique and often controversial organ has been tasked with overseeing the collective security arrangement and structure. Since the end of World War II, the United Nations Security Council has seen a few triumphs in that role, as well as a great deal of miscalculations and at times outright failure. Today, many observers see the Security Council as a dysfunctional organ of the U.N. that is in need of reform. While I contend that reforming the Security Council might be in the best interest for world security, and for the future of the United Nations as an organization – what is sought here is an explanation and look into the inner workings of how the Security Council functions as an organ, as well as an overview of some of the problems that it faces when trying to bring about the maintenance of international peace and security. The conclusions drawn are that the UN Security Council is a necessary, but flawed organ of the United Nations and that while criticism of how it works and the decisions made should be taken into consideration; those who criticize should also realize the complex nature of the problems that the Security Council is tasked with solving. This will hopefully, clearly illuminate why bringing about peace in a complex world of problems and differences is not always easy, and should certainly never be taken lightly.

#### 145

#### THE ANISHINNABE (OJIBWAY) MIGRATION

Mary Harper • ANTH • Erik Gooding, advisor • CMU 2:30pm

Oral tradition originally placed the Anishinnabe and other Algonquin tribes along the shores of the Atlantic coast. The Anishinnabe were compelled to leave when the prophet of the first fire told them to move or be destroyed. Some believe this prediction came true when many of the Ojibway Daybreak people were destroyed with the arrival of the white man. The Daybreak people were the group of the Ojibway that were stay to guard the east door. The Midewiwin (shamans) of the Ojibway guided the people on their migration. Seven times the megis shell would let them know where to stop during the great migration until eventually they found the "food that grows on water". I will be presenting the Anishinnabe migration as I have researched it, illustrating the physical and spiritual path the Ojibwe people followed.

#### 146

#### MEN'S LIFE EXPECTANCY COMPARED TO WOMEN'S LIFE EXPECTANCY.

Sara Flaten • SOC • Susan Humphers-Glnter, advisor • CMU 9:30am

Statistically health and life expectancy for males and females show a significant difference. Life expectancy also differs between races such as African American males. They experience a life expectancy of 69 years at birth, compared with 74.4 for Caucasian American males (Dodson 2007). Even though men rate themselves slightly higher in health quality than women presently do (General Social Survey, 1972-2006). However, we do not know all the fine details of why women tend to live longer than men do. The purpose of the proposed research is to fill some of the finer details of health and life expectancy of men and women. Specifically, I

will focus on my hypotheses pertaining to the measurements of quality of life and also biology of human sex differences. (Source: Dodson, David (2007) Men's health compared with women's health in the 21st century USA, Journal of Men's health & Gender.)

#### 147

#### COMPARISON OF RELATIONSHIP SATISFACTION IN REAL LIFE AND VIRTUAL ROMANTIC RELATIONSHIPS: IS SECOND LIFE REALLY SO DIFFERENT FROM REAL LIFE?

Danielle Jones, Chelsea Lugert, Jenna Wagendorf, Maggie Williams • PSY • Richard Kolotkin, advisor • CMU 200F 2:30pm

Relationships in virtual reality have become common and acceptable in today's digital world. Technological advancements have made it possible for people to not only communicate via the web, but to interact with others in a realistic way by using digital representations of themselves called avatars. Second Life (SL) is a Massive Multiplayer Online Role Playing Game (MMORPG) which has become of increasing importance for education, research, and recreational life. In this world, SL users can log on and develop a social and personal identity by instantly changing their appearance, environment, and personality. Within SL people make connections with one another that often lead to intimate, romantic relationships which can be as emotionally realistic as those they develop in real life. But, despite its pervasive presence, research in the area of virtual relationships, particularly those involving avatars in romantic relationships, is severely lacking. The purpose of this study is to address the burgeoning need to understand this expanding virtual emotional world by comparing virtual romantic relationships with real life romantic relationships for online players having both. The goal of this exploratory research is to shed light on the nature of online emotional relationships, answer questions about how relationship satisfaction plays out in a virtual world, address the impact of virtual romantic relationships on real life relationships, and provide a foundation upon which to base future study.

#### 148

#### YEN CARRY TRADE

Pratigya Devkota, Ross Miller, Sulav Sigdel, Sean Switajewski • FINC • Olgun Sahin, advisor • CMU 200C 2:30pm

Yen carry Trade, its origin and history, investment strategies, effect on the global market and examples.

#### 149

#### GOVERNMENT CONTROL OF THE INFLUENZA OUTBREAK OF 1918

Allison Steen • HIST • Nathan Clarke, advisor • CMU 203 9:30am

The influenza outbreak of 1918 was one of the worst in history. With World War I going on it carried the flu all over the world. Governments tried to control the outbreak, however with limited medicines and dealing with the war many governments were overstretched. The effects of the outbreak killed millions and effected country's all over the world. The effects on governments and people and the media scrutiny only added to the troubles.

#### 151

#### CIVIL-RIGHTS ERA AFRICAN AMERICAN LITERATURE AND ERIK ERIKSON'S STAGES OF LIFE-SPAN DEVELOPMENT

Ian Cole • ENGL • Stephen Hamrick, advisor • CMU 200F 2:50pm

Works by several African American writers from the Civil Rights era will be examined and discussed in relation to Erik Erikson's stages of life-span development. The focus will be primarily on Erikson's fifth and sixth stages: identity vs. identity confusion and intimacy vs. isolation. Writings by authors such as Ralph Ellison, Richard Wright, and James Baldwin will be discussed in the context of these stages, with emphasis on race relations within the United States during the Civil Rights era and their effect on the concepts of identity and isolation.

#### 152

#### INVESTIGATION OF THE SITES OF PHOSPHORYLATION OF CTNHE1-HIS BY ROCK

Natalia Belavina • CHEM • Joseph Provost, advisor • CMU 1:00pm

Investigation of the sites of phosphorylation of ctNHE1-His by Rock. Natalia Belavina, Mark A. Wallert, and Joseph J. Provost Department of Chemistry and the Biochemistry & Biotechnology Program, Minnesota State University Moorhead, Moorhead 56563 The NHE ( $\text{Na}^+/\text{H}^+$ ) exchanger an integral membrane protein that exchanges extracellular for intracellular  $\text{H}^+$ . NHE1 is one of the nine isoforms of the exchanger and is responsible for regulating intracellular pH and cytoskeletal organization. The activation of NHE is associated with cell proliferation,

cell differentiation, cell migration, and apoptosis, however control of these functions by NHE is not well understood. Most of the regulation of the exchanger takes place at the carboxyl terminus where the protein is phosphorylated by several protein kinases including RhoA directed kinase (Rock). Rock is a serine-threonine-specific protein kinase that is involved in regulation of NHE, however the specific phosphorylation sites of NHE by Rock have not been identified. Our project is to express a short-recombinant portion of NHE (the carboxyl terminus), purify the protein and study the ability of Rock to phosphorylate this protein to determine where NHE is being modified by Rock. To do this, *E. coli* Rosetta gami (DE3) cells containing the plasmid PET 28-a(+)- that encodes for histidine tagged, carboxy-terminus portion of NHE (ctNHE1-His) were cultured with LB broth, chloramphenicol and kanamycin, and the expression of NHE was induced by IPTG. Recombinant ctNHE1-His was purified by Nickel Affinity Chromatography and Size Exclusion Chromatography. The purity was determined by SDS PAGE after coomassie staining and ctNHE1-His was identified by western blot. Kinase assay of NHE with Rock I and Rock II was implemented and the samples of the assay were analyzed by mass spectroscopy and by SDS PAGE-coomassie stain. Incubation with Rock II increased the apparent mass (retarded mobility) on SDS-PAGE indicating that ctNHE1-His was modified by the kinase. Additional kinase assays of NHE with RockI/RockII and Y-27632 inhibitor will be implemented to analyze phosphorylation of NHE by Rock. This work was supported by NSF Grant RUI MCB-0817784

### 153

#### THE IMPACT ON HEALTH IN RELATION TO FAMILY INCOME.

**Jason Hoff • SOC • Susan Humphers-Ginther, advisor • CMU 2:30pm**

Currently there are millions of Americans who are feeling the impact of the recession, some more than others. Many lose their jobs, their car, and even their homes. With less money coming in, families seek to save their money on anything they can. One of those is to buy cheaper foods. Cheap foods have a trend of containing minimal nutrients based on the recommended daily amount (RDA). This has a tremendous impact on a population, for example, America has more obese people than any other country. Other implications, such as diseases, can come along with nutrient deficiency. The purpose of the proposed research is to see if poor health with low income is correlated. Using gathered information from the GSS cumulative Datafile 1972-2006, and doing research will be used to determine how cheap foods affect a person's health. This information will have implications for how consumers should seek to purchase their groceries, and for grocery stores, how they should have healthy foods available at a reasonable price.

### 154

#### THE USE OF THE INTERNET IN THE OBAMA BIDEN PRESIDENTIAL CAMPAIGN

**Kayleigh Johnson • POL • Barbara Headrick, advisor •**

**CMU 204 1:40pm**

This is a paper/research that I am doing for an independent study. I am examining the effective use of the internet as a way to gain support in the Obama Biden campaign. I have examined mediums such as blogs, e-mail, forums, and Facebook and Myspace as mobilizing agents and analyzed their effects on the presidential campaign.

### 155

#### DEFORESTATION IN THE AMAZON RAIN FOREST

**Seth Haugen • HIST • Nathan Clarke, advisor • CMU 203 9:50am**

My presentation is going to be on deforestation in the Amazon Rain forest. The effects of deforestation and what it is doing to the environment and the people who live in the area. I will also talk about the history of it and the politics involved in the process.

### 156

#### APPLE AT MSUM EDUCATION DISCOUNT

**Mia Ness • TECH • Kim Samson, advisor • CMU 9:30am**

As the Apple Campus Rep, I am working in conjunction with the Campus Apple Store to enhance the awareness of Apple products at MSUM. We will be doing a 20 - 30 minute oral presentation on the iLife applications that come with every Mac. In addition to our presentation, we are going to have a table display with demo computers set up for people to experience using a Mac computer. We would also like to have a drawing with some prizes from the MSUM Bookstore.

### 157

#### BIRTH CONTROL: BEYOND PILLS AND CONDOMS

**Meghan Strand • NURS • Mary Rousslang, advisor • CMU 1:00pm**

Birth control isn't just condoms and pills anymore. The world of birth control has opened up in recent years to include patches, implants, injections and rings. The options now facing women concerning birth control can be overwhelming. Information regarding these types of less traditional birth control will be presented. Advantages of these birth control options can include longer-term protection, shorter or non-existent menstruation, and higher efficacy. Disadvantages can include prohibitive expense, health problems, scheduling, and lack of protection for sexually transmitted diseases. These advantages and disadvantages can influence decisions about which birth control option is best for each female or couple.

### 158

#### THE FEASIBILITY OF INTEGRATED CARE: DOES IT WORK?

**Steven Baum • SOC • Susan Humphers-Ginther, advisor •**

**CMU 1:00pm**

The Feasibility of Integrated Care: Does it Work? by Steven A. Baum  
Abstract: The notion of a case/care management or integrated style of health care delivery is implemented in several approaches of wellness. In this work, I will explore and analyze how, if, and under what application(s) this approach can be, or is, incorporated into the United States health-care system. I will examine peer reviewed articles and statistical research from the General Social Survey Cumulative Data File (1972-2006) on its use in several applications, and in other countries. I have looked at the practice in regards to: Mental health, substance abuse/addiction, intellectual disability, primary care, and chronic illness. An analysis of American's opinions on their health and the level of confidence they have in physicians putting the patient's health over costs, shows a lessening of faith for people with poorer health. Class is another variable that will link the hypothesis to a more appropriate delivery of wellness. In some instances an integrated approach may not be the most efficient answer because of underlying problems in the entire health care system.

### 159

#### SOIL MAGNETISM OF A HEARTH FEATURE AT THE BIESTERFELDT ARCHAEOLOGICAL SITE

**Christina Schwarz • ANTH • Rlnita Dalan, advisor • CMU 227 1:20pm**

A magnetic reconnaissance is being conducted on soil samples collected from the Biesterfeldt archaeological site, an 18th century earth lodge village located on the Sheyenne River in the south-eastern corner of North Dakota. The soil samples were collected during an MSUM field school excavation of a central fire hearth of the remains of an earth lodge. The objective of this study is to understand how soil magnetic properties are influenced by burning. Various magnetic measurements, including mass magnetic susceptibility, frequency dependence of susceptibility, anhysteretic remnant magnetization (ARM) and S values are being conducted and completed. These measurements will allow an understanding of the concentration of magnetic material, magnetic mineralogy, grain size and how these properties have been modified by burning. By incorporating data from a previous excavation on a hearth at the Sprunk archaeological site located on the Maple River, this comparison will look for unique magnetic signatures that will help in the identification of human impacts and presence in less obvious environment.

### 160

#### PHENOTYPIC CONSEQUENCES OF THE EGG NUMBER – EGG SIZE TRADE OFF IN ZEBRAFISH (DANIO RERIO)

**Adam Linke, Randy Sutrisno • BIOL • Brian Wlsenden, advisor •**

**CMU 2:30pm**

Abstract: The number of eggs that one female zebrafish can produce depends on its body size and the size of the eggs. Large eggs have a longer development time, but will produce fry (hatchlings) with better swimming ability and therefore, higher survival than eggs of smaller size. We will begin our investigation by measuring the range and variation in egg size and resulting fry from wild-caught zebrafish from northern Bengal, India. This work will potentially lead to a selective breeding program to develop large-egged and small-egged strains of zebrafish.

### 161

#### JAPANESE YEN CARRY TRADE

**Jenna Kirby, Dustin Nagel, Matthew Oye • FINC • Olgun Sahin, advisor • CMU 214 9:30am**

In our presentation we will be discussing not only what the Yen Carry Trade is but the many factors that affect it. A few of the factors we will

talk about are the forward/spot rates, the changes in interest rates and the valuation of the yen currency. We will provide examples to better understand these factors and the impact they have. We will also be discussing the central bank along with the monetary policy. Lastly, we will talk about the different issues that are influencing the tightening of the Yen Carry Trade and the future outlook for trading.

## 162

### EVALUATION OF THE CHIRAL RELAY CONCEPT USING PYRAZOLIDINONE RING SYSTEMS

**Kathryn Morrison • CHEM • Craig Jaspere, advisor • CMU 9:30am**  
The "chiral relay" concept is the idea that having a permanent chiral center in the pyrazolidone ring (the Ph-bearing carbon) dictates the configuration of the fluxional nitrogen. If the Ph occupies the front face of the chiral center, the N-benzyl group should occupy the back face. As a result, addition reactions to the side chains in substrates such as 3 and 4 occur stereoselectively from the front face. In order to study and verify the "chiral relay" concept for pyrazolidinone ring systems, prototype 2 and derivatives such as 3 and 4 are being studied. We have recently developed a clean, inexpensive, efficient synthesis of prototype 2. Various methods for acylation (see reactions 2 ? 3, and 2 ? 4) have been evaluated. It was established that a method involving lithium hexamethyldisilazide as base in tetrahydrofuran solvent, followed by addition of an acyl chloride, provided the best conversion with fewest side products to remove at the end. Further verification and optimization of these acylation conditions are ongoing. After these conditions have been optimized, the next step will be to explore conjugate addition reactions to unsaturated substrate 3 (see reaction 3 ? 5) and enolate alkylation reactions involving saturated substrate 4 (see reaction 4 ? 6). The stereoselection in the formation of products 5 and 6 will be evaluated.

## 163

### UPDATED SURVEY OF WILD TURKEY (MELEAGRIS GALLOPAVO) DISTRIBUTION IN CASS (ND) AND CLAY (MN) COUNTIES

**Morgan Elfelt • BIOL • Donna Stockrahm, advisor • CMU 1:00pm**  
This study has been conducted since 2003 with the objective of using mail surveys to estimate the minimum wild turkey (*Meleagris gallopavo*) population in the Red River Valley (RRV) in the Fargo, North Dakota/Moorhead, Minnesota, area. The RRV offers suitable turkey habitat in a relatively narrow corridor surrounded by a dense human population. In 2004, urban human-turkey interactions were monitored as well, adding in 2005, a survey to assess public opinion on wild turkey management options in the event abatement measures were necessary due to problematic urban turkeys. Turkey observations reported from 2003 through 2008 show a strong population thriving in the RRV, fluctuating, with a steady increase in numbers and sightings. In 2004, 12.5% of survey respondents (respondents = 40, out of 150 mailed surveys) reported negative human-turkey interactions. In 2005, negative reports rose to 24% (respondents = 75, out of 500 mailed surveys). In 2006, negative human-turkey interactions dropped to 7% (respondents = 190, out of 537 mailed surveys). In 2007, negative human-turkey interactions increased to 10% (respondents = 115, out of 220 mailed surveys). In 2008, negative interactions again decreased to 7% (respondents = 123, out of 244 mailed surveys). Negative interactions included such things as turkeys blocking traffic routes, entering yards, eating from bird feeders/gardens, and aggressive behaviors. The 2008 public opinion survey also showed that 73% of respondents that reported sightings believed that they were witnessing the same group of turkeys over a period of time. Also, 25% of respondents reported wild turkeys becoming more tame, and only 3% reported turkeys becoming more wild.

## 164

### EXPLORING REACTIONS FOR THE SYNTHESIS OF CHIRAL ACYL PYRAZOLIDINONES FOR CHIRAL RELAY STUDIES.

**Daniel Hammes • CHEM • Craig Jaspere, advisor • CMU 2:30pm**  
The research being explored is a continuation of the development of new reactions for stereocontrolled synthesis of organic chemicals through a chiral relay system. The ultimate goal of this research is creating new chiral organic molecules by methods that are fast, clean, cheap, easy, and that produce high-yields. Recent research in the group has developed a cheap and efficient synthesis of chiral pyrazolidinone rings in high yields from simple precursors. The research presented here involves the development of an effective procedure for acylating the pyrazolidinone rings. Several variables have been examined: the solvent (dichloromethane, tetrahydrofuran, etc.); the base (lithium bis(trimethylsilyl)amide, butyl lithium); the presence or absence of coupling agent (diisopropyl carbodiimide, dimethylaminopyridine); and the nature of the acylating agent (phenylacetic acid versus phenylacetyl

chloride, crotonic acid versus crotonyl chloride). Optimal conditions involve the use of butyl lithium as base, in tetrahydrofuran as solvent, using acid chlorides rather than carboxylic acids as acylating agents.

## 165

### THE PRINCIPLE OF VERACITY AS IT APPLIES TO THE FIELD OF MASS COMMUNICATIONS

**Torrey Halverson, Amber Olds, Laura Posterick • MC • Martin Grindeland, advisor • CMU 205 3:10pm**

The principle of veracity (the unwillingness to lie coupled with efforts to seek and tell the truth) is one of the most important principles in the field of mass communications. Our speakers will explore what it means to apply the principle and what happens when the principle is violated.

## 166

### ENHANCING COMPREHENSION THROUGH COLORED DIAGRAMS

**Melani Kodikara • PSY • Christine Malone, advisor • CMU 9:30am**

The study investigated methods of enhancing comprehension using different types of diagrams. It was suggested that diagrams in a simplified format would be more beneficial in learning than diagrams in a detailed format and it was further suggested that simplified colored diagrams would be more beneficial than equivalent black and white diagrams. A diagram of human heart was used in four forms—simplified colored, simplified black and white, detailed colored, and detailed black and white. An equivalent text based format was used as the control condition. After studying either one of four types of diagrams or the text based format participants answered a questionnaire. Participants who studied the simplified diagrams were able to score higher marks on the test than the participants who studied the detailed diagrams and the text based format. Although the simplified diagrams were beneficial and had a significant effect on learning, the study failed to establish a relationship between simplified diagrams and colors, since the two groups of participants who studied simplified colored diagrams and simplified-black and white diagrams obtained equal results.

## 167

### THE ASSOCIATION BETWEEN MENTAL ILLNESS AND INCOME

**Maranda Anderson • SOC • Susan Humphers-Ginther, advisor • CMU 1:00pm**

Mental illness can be defined as an impairment of an individual's normal cognitive, emotional, or behavioral functioning, and caused by social, psychological, biochemical, genetic, or other factors, such as infection or head trauma. I will be looking at the study of mental illness associated with income. The outcome of the study will be to find out if there is a direct association between a person's income and their mental health status.

## 168

### A CLOSER LOOK AT CHILDHOOD OBESITY: FARGO VERSUS THE NATION.

**Maranda Anderson, Tahralee Sauvageau, Brittni Wlechmann, Travis Yanta • HLTH • Gina Kelly, advisor • CMU 207 3:25pm**

Childhood obesity affects more than 12.5 million children and adolescents nationally. The proportion of overweight 12-19 year old children has tripled, from five percent in the early 1960s to 15 percent in 2000 (Institute of Medicine, 2009). Childhood obesity can lead to Type II diabetes, which was once known as a disease that only an adult could develop. Childhood obesity can lead to other problems such as cardiovascular disease. This study examines the ways different school systems are implementing prevention strategies for childhood obesity. The age range examined will be 6rd-8th graders. For comparative statistics four different school systems from four different regions of the country that have similar populations to Fargo, ND. Also, extracurricular activities that the schools offer, the different physical education programs offered, and the lunch menus that are offered will be examined and compared. We will be comparing the different obesity rates from the four different regions to hopefully inform us which programs lead to lower obesity rates.

## 169

### RISK-SENSITIVE INFORMATION-GATHERING BY ZEBRAFISH FOLLOWING RELEASE OF CHEMICAL ALARM CUES

**Char Binstock, Adam Linke • BIOL • Brian Wisenden, advisor • CMU 2:30pm**

Chemical cues are important in aquatic habitats because water is an excellent solvent and because biological interactions, such as predation, release chemical information. These chemical cues exemplify information about the presence of predation risk. Prey fish that are close in proximity to predators avoid regions where these cues are released. In

this study, the main purpose was to examine chemical cues in stream tanks to better comprehend how fish respond to these cues. When conducting the study, two simulation stream tanks were set up to study the reaction of Zebrafish (*Danio rerio*) in a natural stream setting. Although the effect of chemical cues on prey fish behavior has been well studied in stationary water, fish tanks are not a realistic assessment of how predation chemicals affect fish behavior. The volume of a tank is very compact compared to a natural environment; therefore, the cues do not become diluted as they would in nature. For each trial, a single Zebrafish was observed for three minutes to track the natural movements throughout the stream tank prior to the release of water and chemical cues. Three shelters were placed along the length of the stream tanks (up, middle, and downstream) to provide shelter for the fish when the chemical alarm cue was released. The movement of the fish was tracked in flow vs. no flow conditions with pre-stimulus, water, and alarm cue. (1) It was hypothesized that the alarm cue would reduce the activity of the Zebrafish. (2) In addition to this prediction, it was hypothesized that the fish would choose the furthest shelter in flow conditions to provide protection while still gaining access to the chemical information. (3) In no flow conditions, it was predicted that the Zebrafish would choose the closest shelter to where the alarm cue was released. The data supported all three hypotheses which suggested that Zebrafish perform predator inspection behavior. This is where the fish senses danger, but it stays close to the alarm (provided shelter) to detect where the cue originated.

## 170

### THE SUCCESS OF PRESIDENT BARACK OBAMA

**Amber Helmze • CMST • Theresa Hest, advisor • CMU 227 1:40pm**

Throughout the 2008 Presidential Election, then Democratic nominee Barack Obama used many strategic means to win the election and become the next President of the United States. Some strategies used include his consistent message of change, efficient and organized campaign manager, eloquence in speaking, and the current economic condition, among many others. This paper and presentation will examine each of the tactics used that lead to the success of President Barack Obama.

## 171

### SELF BALANCING SATEBOARD

**Adam Isaak, Darren Schaeffer • PHYS • Stephen Lindaas, advisor • CMU 9:30am**

Based on the famous Segway, we are developing a self balancing skateboard. We plan on developing a prototype that will allow a person to stand on this single axle, two wheeled personal vehicle and lean in the direction they want to travel, and the torque from the wheels will cancel the torque applied from the person and the vehicle will transverse in the desired direction.

## 172

### CHEMICAL IMBALANCES IN THE BRAIN RELATING TO SOCIOECONOMIC INDEX

**Robert Jackson • SOC • Susan Humphers-Ginther, advisor • CMU 1:00pm**

I am investigating the correlation between physical chemical imbalances within the body and one's socioeconomic index. I utilized the General Social Survey to locate and isolate these two variables. By investigating these factors I hope to find out which factor is dependent upon the other, assuming it can rationally be seen either way. There is the potential that one's socioeconomic index is caused by their personal chemical balance/imbalance, or that one's chemical balance/imbalance is caused by their socioeconomic index. Further scientific investigation on the role of some of the chemical cues within the brain should make the findings apparent. I am hypothesizing that as the socioeconomic index increases the feeling of a chemical imbalance within the brain decreases. This concept should indeed elaborate on others past information and findings by connecting these two particular variables. By making a connection between these two variables, it will create a better understanding of both chemical imbalances within the brain and possible effectors toward one's socioeconomic level.

## 173

### MAKING OF A CHAMPION, EXPLORING STEROID USE IN SPORTS

**Emily Hartung, Jesse Johnson • PE • Wendy Frappier, advisor • CMU 218 2:00pm**

This presentation will look at the increased use of Anabolic Steroids in all aspects of sports and recreation today. We will discuss the uses of steroids, who uses them, how they are taken, signs of use, side effects, and some great teaching tools for those who want to learn more about

the effects of steroids on the body. Not only will this presentation discuss the basics of steroid use, but it will touch on many of the recent steroid scandals surrounding sports today. Not only will this presentation be about the facts of steroid use, but it will give an over view of why steroid use has become so popular in todays society.

## 174

### THE THINKING THING

**Anthony Jacobson • PHIL • Theodore Gracyk, advisor • CMU 214 9:50am**

My presentation will be exploring the issues of what thinking is, whether or not robots (Artificial Intelligence) are capable of thought, and if people are even capable of thinking.

## 175

### AWAKENING: ORIGINS OF SELF-CONSCIOUSNESS

**Thomas Berg • ANTH • Erik Gooding, advisor • CMU 2:30pm**

The hypothesized "origin of consciousness" in the Late Stone Age and shamanism could share a connection. Early shamanism is thought to have been connected to caves, very early art, different methods of moving into altered states, and the possible ways all of these could have brought about the human consciousness as we understand it today. Possibilities on the origins of consciousness can be studied using anthropological reports of modern tribal religions, archaeological findings from the Paleolithic, and psychological studies on the interface of senses and the human brain. This concept is controversial; the very idea and definition of human "consciousness" is up for debate and speculation. Human self-consciousness is extremely important to the cultural anthropologist trying to understand remote tribal religions, to the psychologist wanting to understand more about how the human mind works, and also to the archaeologist trying to learn how human behavior has progressed throughout time.

## 176

### MINNESOTA PROTESTS TO FILM BIRTH OF A NATION

**Kate Amundson • HIST • Steven Hoffbeck, advisor • CMU 218 2:30pm**

The controversial 1915 film "Birth of a Nation" struck a cord with many Americans across the country. While some hailed it as a cinematic masterpiece, others saw the movie as blatantly racist and stereotypical. Many individuals across the country launched protests against the film, however, Minnesota's various protests have largely gone unnoticed or unexamined, but these demonstrations shows great fortitude against the oppression of some Americans.

## 177

### HEALTHY AGING

**Lucinda Craft • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am**

Healthy Aging Lucinda Craft Abstract Healthy Aging is a process during our lifecycle in which we make healthy decisions regarding our nutrition, physical fitness and lifestyle. These decisions influence our life as we enter our life stages; by determining how we actively age, our quality of life and helping us remain independent. Nutrition recently became a determining factor in quality of life issues and a cornerstone of successful aging. The benefits of nutrients have been linked to the reduction of coronary heart disease, cancer, and insulin resistance. My research will be reviewing different aspects of nutrition for the elderly and data from the General Social Survey. Important areas of nutrition they can implement easily that will provide a positive health influence in their life and improve their mental outlook in their elder years. Material needs to be provided to people on how we can control some of the health aspects on aging and how nutrition can play a part in prevention of some diseases. Teaching people how to incorporate small changes in their nutritional habits and how it promotes a better quality of life as we age is an important aspect of health that needs to be addressed.

## 178

### MISCARRIAGE AND MENTAL HEALTH

**Elizabeth Johanson • SOC • Susan Humphers-Ginther, advisor • CMU 214 10:30am**

The issue of miscarriage is a difficult one. Though almost 1/3 of all women will experience one in their lifetime, it is often disregarded as a natural process of weeding out potentially unhealthy babies. However, for the women, often the loss is devastating. The loss of any child is extremely difficult and stressful, and without any mourning rituals or even in many cases validation of feelings of sadness or loss, miscarriage can be traumatizing. Using data from the General Social Survey (GSS) along with other scholarly sources, this study has explored the correlation between child loss and self-reported mental health and happiness.

**179**

**MICROWEAR PATTERNS ON LITHIC IMPLEMENTS FROM THE SPRUNK SITE**

**Danielle Bally • ANTH • Michael Michlovic, advisor • CMU 1:00pm**  
The Sprunk site is a late prehistoric settlement in southeastern North Dakota. This archeological site is one of a cluster of sites known around the Lisbon ND area. In 2004 this site was excavated and cultural remains were found. Within this assemblage stone tools were recovered. While the use of the tools can be speculated by the shape of the artifact the actual use is largely unknown. Using low power magnification, damage from use can be seen and the use of the artifact is clearer than visual analysis alone. By looking at the wear using magnification, similarities can be found in the assemblage and provides further insight into how the tools were being used. As well as how the wear on specific types of artifacts differ.

**180**

**WOLFF-PARKINSON-WHITE SYNDROME**

**Levi Tanda • AT • Dawn Hammerschmidt, advisor • CMU UG 3:10pm**  
WPW is a cardiac defect mainly affecting the left atrium and left ventricle of the heart that affects only between 0.9% and 3% of the general population. WPW is caused by an accessory pathway found among the route of the atrio-ventricular node (AVN) known as the Bundle of Kent. The heart rate reaches upwards of 280-300 bpm, which is consistent with the boundaries of atrial fibrillation. WPW may be more visible in highly trained endurance athletes, however, there has been no statistical evidence to suggest that the athletic population is more at risk for WPW, only that it may be more visible.

**181**

**CONTROVERSY OVER ADHD**

**Aimee Carlon • SOC • Susan Humphers-Glnter, advisor • CMU 2:30pm**

Many people do not know whether ADHD is a real disorder since it was just made a mental disorder in the last 40 to 50 years. If ADHD is not a real disorder, then are these medications being prescribed working and necessary? When ADHD first came about teachers and parents made a huge push at it. Parents were bringing kids in with the slightest sense of their child being "hyper". Teachers would tell any parents of a child who was giving them grief to be checked. They wanted a diagnosis to explain why their child was different. There are many people who believe it is a real disorder, and amongst those it is the younger crowd that does not believe medication will solve the problem. It is also the younger crowd who tends to find it not a real disorder. For those who do not believe it is a disorder, they have good evidence or ideas to back it up. The child may just have an outgoing personality, or they are smarter than average, so in school they become bored because they have nothing to push their mind. It is a controversy many parents face as their child is growing up. I will be using the general social survey to investigate the relationship between the people who believe in ADHD and if medications are necessary and they responders age.

**182**

**"THE ASSESSMENT OF DNA DAMAGE IN ZEBRAFISH USING A COMET ASSAY" - THERESA FLOER**

**Theresa Floer • BIOL • Michelle Malott, advisor • CMU 9:30am**

To assess the water quality of the Red River, in two different trials, zebrafish were exposed to river water samples taken downstream from an effluent plant located along the Red River. After the exposure period, zebrafish erythrocytes were assessed using the comet assay to determine if there was DNA damage. The importance of these findings will indicate if the water quality, in the Red River contains genotoxic substances and the capability of producing carcinogenic affects in fish populations as well as detect if there is an environmental problem in this area from pollution produced by urban communities and industries.

**184**

**THE ROLE OF PROTEST MUSIC IN SOCIETY DURING THE VIETNAM WAR ERA**

**Scott Trout • MUS • Laurie Blunsom, advisor • CMU 218 2:50pm**

Protest music can be seen in all generations throughout US history. But at no time was protest music more evident or prominent than during the Vietnam War. This paper will discuss the protest music of the Vietnam War era, what views it brought to light and how it reshaped people's opinions and views of the war. I will discuss different types of protest songs, such as those that are strictly about peace and love, and those that are strictly anti-war and anti-government, using examples of specific protest songs written before, during, and after the United States involvement with the Vietnam War.

**185**

**STATISTICAL ANALYSIS OF THE STUDENT ACADEMIC CONFERENCE**

**Neharika Upadhyaya • MATH • O'Neill Lynch, advisor • CMU 1:00pm**  
Presentation on the history of the student academic conference as relates to growth and various demographics. Statistics are applied to perform this analysis.

**186**

**THE ONSET OF SYSTEMIC ACQUIRED RESISTANCE IN CUCUMIS SATIVUS: A STUDY OF ENVIRONMENTALLY INDUCED CHANGES IN FUNDAMENTAL MEANS OF ENERGY TRANSFORMATION**

**Philip Haugrud • BIOL • Andrew Marry, advisor • CMU 1:00pm**  
Systemic acquired resistance (SAR) is a phenomenon in plants analogous to vaccination in animals. By inoculating plants with salicylic acid, which is a signaling chemical plants associate with pathogen invaders, a response is induced that causes the production of materials that strengthen the cell wall. We tested how SAR affects energetics in the cucumber (*Cucumis sativus*) by measuring photosynthesis and respiration rates as a function of time after inoculation. We observed an increase in respiration after 20 minutes indicating the keen ability of plants to respond to changes in their environment. Furthermore, the response of greater respiration may be a "defend or die" response where stored sugars are quickly metabolized to provide energy for the building up of defenses.

**187**

**THE COMET ASSAY FOR VISUALIZING DNA DAMAGE**

**Jenna Peper, Andrea Slusser • BIOL • Michelle Malott, advisor • CMU 9:30am**

Investigations on the effects of UV radiation on H460 non-small cell lung carcinomas and fathead minnows can be visualized by the comet assay. Non-small cell lung carcinomas (cells in culture) were used to develop proficiency visualizing DNA migration away from the nucleus. The objective is to determine whether a substance secreted by the skin of sampled fathead minnows that functions in chemical signaling also has an additional function as a protectant against UV damage. UV radiation impacts DNA by disruption of the chemical bonding in the sugar-phosphate backbone of the DNA molecule. The comet assay, or single-cell electrophoresis, is a simple method for detecting and measuring deoxyribonucleic acid strand breakage associated with various DNA damaging agents such as UV radiation. Preliminary results of utilization of the comet assay to examine the impact of UV radiation on cells in culture stimulated with this chemical signal will be presented.

**188**

**SUPPLY CHAIN MANAGEMENT & ORGAN TRANSPLANTATION**

**Leonard Beck, Kristopher Karls, Rebecca Kelbert • MGMT • Ashish Gupta, advisor • CMU 218 3:10pm**

25,628 patients received organ transplants between January and November last year, but over 100,000 people are still on the waiting list. The Organ Procurement and Transplantation Network (OPTN) does its best to match the supply of donors with the demand for organs. This presentation discusses the OPTN, the components of its supply chain, and how it manages these components.

**189**

**TRANSFORMING ONE'S SELF : THE WORK OF LUCAS SAMARAS**

**Amanda Sarha • ART • Anna Arnar, advisor • CMU 101 2:00pm**

This presentation will cover the history and work of Lucas Samaras. This subject matter will be explored through his influences and choice of material/medium. His expanding use of Polaroid film will be a main point of discussion. A look at the perceived narcissism throughout his work will also be subject to discourse.

**190**

**HPV IN FARGO-MOORHEAD**

**Katie Anderson, Sabrina Knutson, Pranita Sharma • HLTH • Gina Kelly, advisor • CMU 1:00pm**

The Human Papillomavirus (HPV) is the most common sexually transmitted disease (STD) among young, sexually active people and is an increasingly public health concern. Researching the incidence of HPV in the Fargo/Moorhead area among young females will provide us with preventive measures of this disease. The concern for HPV has increased in recent years after studies proved that certain strains of HPV infection can lead to cervical cancer. The overall HPV prevalence including high and low risk types was 26.8% among US females aged 14 to 59 (Centers of Disease Control and Prevention, 2008). For this research project, females between the ages of 14 and 29 will be the

primary demographic studied. Focusing on this age group will create the opportunity to gather an abundant amount of data due to the three college universities in the area. The methodology being used for this study will be to create partnerships with local health departments to obtain accurate, local data. Focusing on females in the immediate area will provide opportunity to influence the choices of fellow students who view our presentation.

**191**

**THE CAUSES OF POOR MENTAL HEALTH IN YOUNG ADULTS**  
**Mandi Schable • SOC • Susan Humphers-Glather, advisor • CMU 2:30pm**

Young adulthood is a time of independence and formative decision making. These responsibilities can have a negative impact on one's mental health. Social factors, ranging from race, gender, and socioeconomic status can fuel poor mental health. The General Social Survey will be used to examine the relationships between poor mental health in young adults, ages 17-25, and those social factors. Additional research is needed to decide which factors have more of a pull than others. It is expected that minorities and persons with low socioeconomic status will have poorer mental health than majorities and persons with high socioeconomic status. The resulting data will help people understand the causes of poor mental health in young adults, and discover ways to prevent, treat, and socially accept it.

**192**

**CHEMICAL CHARACTERIZATION OF MINNOW ALARM CUE. 2: TESTING FOR POLAR VERSUS NON-POLAR COMPOUNDS**

**Sara Aleem, Char Blinstock, Andrea Pitz • BIOL •**

**Brian Wisenden, advisor • CMU 2:30pm**

Biosciences Department, Minnesota State University Moorhead When a predator attacks prey, damaged prey tissue releases chemical information that reliably indicates an actively foraging predator. Prey uses the released semiochemicals to cue anti-predator behavior to reduce the probability of being preyed upon. Until recently, literature supported that these cues were contained in specialized epidermal 'club cells' of fishes. Hypoxanthine 3N oxide (H3NO) is hypothesized to be the active ingredient in alarm cues, and this compound is also hypothesized to be produced by epidermal club cells. A new study, however, has shown that fathead minnows (*Pimephales promelas*) respond to damaged tissues that had not yet developed the club cells. In our study we will attempt to isolate the particular component of the tissue that is causing the alarm reaction found in fathead minnows. We separate molecular contents of fathead skin extract by size C-18 Sep-Pak cartridges that retain polar molecules. This experiment will allow us to narrow our search for the active ingredient(s) in minnow alarm cue and will help determine the nature and origin of the molecule responsible for inducing the anti-behavior.

**193**

**INVESTIGATION OF THE ROLE OF ADP CONCENTRATION ON PPDK-RP PROTEIN PHOSPHATASE ACTIVITY.**

**Christopher Failling, Sarah Toward • BIOL • Chris Chastain, advisor • CMU 1:00pm**

Pyruvate orthophosphate dikinase (PPDK) is a vital enzyme in the C4 photosynthesis pathway. It catalyzes the regeneration of phosphoenolpyruvate (PEP) and ATP in the chloroplast stroma of leaf-mesophyll cells. This enzyme is controlled by PPDK-regulatory protein (PPDK-RP). RP acts as both a protein kinase and protein phosphatase. We will test the proposed model that the concentration of ADP acts as the mediator of the bidirectional activity of PPDK-RP. Two scenarios are possible: either, ADP will have no direct effect on the protein phosphatase reaction of PPDK-RP or ADP will act as some type of inhibitor. This will be investigated by knocking out the PPDK-RP protein kinase activity through site-directed mutagenesis of the vital protein kinase p-loop function. The replication, transformation, and purification of the mutated recombinant Maize PPDK-RP will prepare the enzyme for ADP-dependent spectrophotometric assays. The hypothesis states that the concentration of ADP will affect the rate of PPDK-RP protein phosphatase activity. The null hypothesis states that the concentration of ADP will have no effect on the protein phosphatase activity of PPDK-RP.

**194**

**MEDEKA EMBRYO DEVELOPMENT UPON EXPOSURE TO DOWNSTREAM WATER FROM AN EFFLUENT PLANT**

**Rachel Bloms, Tara Elchhorn, Renek Jorgenson, Kayla Nagle • BIOL • Patricia Wisenden, advisor • CMU 214 1:00pm**

Endocrine disruptors and their source from chemical wastes have shown negative effects on the development of Medaka fish embryos. Endocrine

disrupting compounds can mimic or block natural estrogens, but are not disposed of through municipal waste water treatment. Field testing of waste water runoff from the Red River upstream and downstream of the Municipal Waste Water Treatment Plant in Fargo was examined during January and February before spring melt two consecutive years. ELISA assays to determine the concentration of estrogen hormone were performed on collected samples. Laboratory testing of  $\alpha$ -estradiol was also examined two consecutive years versus control and DMSO used for dissolving the estrogen cholesterol. Hatching rates of both the environmental and experimental embryos was observed. Statistical differences were found between control and estrogen development rates noticing increased pace from the treated embryos. The overstimulation of growth would presume feminization of reproductive organs and secondary sex characteristics which should be viewed as a warning to more complex organisms.

**195**

**PANEL ON SHAKESPEARE**

**Casey Barber, Joileen Billman, Ellen Matheson • ENGL •**

**Sandra Pearce, advisor • CMU 204 9:30am**

Jack Falstaff, of William Shakespeare's The First Part of King Henry the Fourth, stands as one of the most controversial characters to date. Viewers, readers, and even characters within the play respond so ambiguously to him, that Shakespeare felt adequate need to resurrect his character in a future stage production. And the relationship between Falstaff and Prince Hal far exceeds any other association within Henry the Fourth in terms of complexity. Hal's destiny takes shape; he will arise as one of the greatest kings England has ever known. Why then does he associate with the corrupt Falstaff on such a regular basis? As disparate as the characters may be, Hal's future hangs, in large part, on Falstaff. Though Falstaff represents Satan, he becomes necessary for the development of Hal, the eventual Christ figure. Gender Conflict in Macbeth: In his tragedy, Macbeth, William Shakespeare makes a bold statement about the expected, submissive, and maternal role of women in Elizabethan times, contrasting these beliefs with his creation of strong, female characters, primarily that of power-hungry Lady Macbeth. With her, Shakespeare contradicts both marital and societal female norms, equipping her with willpower and masculine traits unparalleled in a woman of that time period and completely outrageous as viewed by audiences. Along with this strong character, Shakespeare further lends himself to a feminist criticism of Macbeth in his confusing and unconventional gender portrayal of the witches as well as Macbeth's subservience to his wife. Feminism ultimately helps Shakespeare's audiences grasp the underlying theme of gender conflict in Macbeth, a theme that may otherwise have remained overlooked. Shakespeare's Justice Tempered and Unrestrained by Mercy: "The Tragedy of King Richard the Second" and "The Merchant of Venice" explore the idea of justice and morality; the idea that judgments should be guided by principles unfettered by the sometimes shallow and vengeful human condition. In their dealings with one another, King Richard and Henry Bolingbroke of "The Tragedy of King Richard the Second" and Antonio and Shylock of "The Merchant of Venice" display the idea of justice with and without mercy. While King Richard and Henry Bolingbroke's situation deals with the concept of justice unfettered by compassion, Shylock and Antonio's bond emerges as the moral ideal: righteousness tempered by mercy.

**196**

**PAST-PRESENT-FUTURE OF IT & HOW IT HAS EVOLVED.**

**Ryan Meyer, Evan Ranz, Jonas Sauve • BUS • Ashish Gupta, advisor • CMU 227 2:00pm**

In this study, we will be discussing when and how internet technologies came into existence and the capabilities that they originally had. We will then move into how it has evolved into what it is today's form of being one of the most important tools in business and many other aspects of life. Lastly, we will look into the future of IT and the unlimited potential that it has.

**197**

**TECH-SPEAK**

**Casey Barber • ENGL • Jill Frederick, advisor • CMU 218 3:30pm**

The goal of my presentation is to inform the listeners on technology's influence upon present-day English. A clear correlation exists between new visual media and changes occurring in spoken discourse. By the end of this discussion, the audience should have a clear grasp on this connection and where it might lead our language in the future.

Throughout my research, I have discovered that cellular phones and the web have transformed our use of language, its interpretation, and its role in our lives. English has always adapted to new technologies, as it did

with the telegraph, for instance. What has occurred within approximately the last fifteen years, however, is a blending of electronic variations and the spoken variation. Acronyms, for example, are no longer confined as jargon in professional documents, but are used in everyday conversation. Such significant shifts have occurred in all mediums, due in large part to technology. Consequently, our language in all its facets are continuing to change more quickly as technology becomes increasingly prevalent in our time. Once we understand this process, recent alterations within the English language will seem less drastic and more logical.

**198**

**THE MISUNDERSTOOD: COMMUNICATION DISORDERS AND EMOTIONAL AND BEHAVIORAL DISORDERS**

**Sharl Roach • SPED • Ann Goldade, advisor • CMU 2:30pm**

The similarities and differences between Communication Disorders and Emotional and Behavioral Disorders and how they effect each other.

**199**

**OVERALL HAPPINESS IN OLDER ADULTS**

**Kimberly Ness • SOC • Deborah White, advisor • CMU 9:30am**

As our population is slowly aging and the baby boomers are getting older, I have decided to look at some things that have occurred in old adults lives to see if life events have had an impact on their overall happiness.

**201**

**ELECTRICAL CAPACITANCE: A DIFFERENT PERSPECTIVE ON SUBSURFACE MAPPING**

**Thomas Berg • ANTH • Rinita Dalan, advisor • CMU 9:30am**

Geophysics is a tool that archaeologists use to map subsurface features, without the destructive and time consuming digging process. This is a field that is constantly changing and advancing. The information that geophysical studies provide can prove invaluable to archaeologists, who are always looking for a better method to examine what is below the surface. Electrical capacitance is a physical property that is mostly untested in archaeological geophysics. This experiment explores the potential of electrical capacitance to give archaeologists a unique perspective on subsurface features. One objective was to build an economical instrument, as many geophysical instruments are prohibitively expensive (thousands of dollars). Funded by a MSUM CSNS student research grant, the instrument has gone through four model variations and a previous prototype before the current model. The instrument is being tested in the laboratory using simulated soil environments built using commercially available topsoils, sands, gravels, and soils collected from various contexts in North Dakota, to address issues of replicability, sensitivity, and response to changing moisture contents and borehole diameters. The field testing will be done this summer.

**202**

**DO TEMPERATURE AND STOICHIOMETRY INTERACT TO EXPLAIN GROWTH RATES IN AN AQUATIC INVERTEBRATE?**

**Chathurika Kuruppuarachchi • BIOL • Daniel McEwen, advisor • CMU 9:30am**

Metabolic theories are emerging as a paradigm to connect ecological phenomena to mechanisms based on first principles of physics. Theoretic models have fit empirical data well when comparing across body sizes of animals that differ by orders of magnitude but become much noisier when fit to organisms of similar size. One hypothesis for this lack of fit is that mismatches in elemental composition of body tissue and resources explains some of the residual variation left after fitting metabolic models. Here we test this hypothesis using larval Chironomus tentans, an important and ubiquitous aquatic insect found in lentic habitats. We use a two-factor analysis, including temperature and phosphorus concentration in food using two levels for both factors. We hypothesize a significant interaction for phosphorus content and temperature, and that temperature in addition to phosphorus explains more variance in our response, which is the rate of growth, than temperature alone. We use a Bayesian approach to analyze our data, using informative priors based on previous growth and stoichiometric data for aquatic dipterans. Additionally, we develop a simulation model based on metabolism and stoichiometry that we attempt to parameterize using laboratory derived estimates from our experiment.

**203**

**HAPPINESS AND MARRIAGE: DOES IT MATTER AFTER ALL?**

**Aimee Karsky • SOC • Susan Humphers-Ginther, advisor •**

**CMU 1:00pm**

Over the last few decades, sociologists, psychologists, and even biologists have studied the effect of the "marriage benefit" on all aspects of human life. The overwhelming conclusions have been in support of the idea that married individuals are the happiest out of any other type of relationship group. The purpose of this research paper will be to analyze those findings, discover if they still apply to our society today, and try to create a cohesive explanation of what exactly makes this group so much happier than any other. The GSS Data File, 1976-2006, was employed in order to establish the positive correlation between happiness and marriage. In addition to this, a number of articles were also used that both support and criticize this marriage/happiness correlation. The finding have ultimately held onto the original hypothesis that married couples do indeed have the highest rates of happiness among any other relationship group. Although, it should be noted, that this is not always true for all couples and in all situations.

**204**

**EL HABLA CAMBA: COMPREHENSIBLE TO THE SPANISH STUDENT?**

**Kathryn Shorma • SPAN • Benjamin Smith, advisor •**

**CMU 227 1:00pm**

One of the main questions I have received as one who lived in Bolivia, South America is, "Do you understand the Spanish spoken in other countries?" This is, in fact, a slightly silly inquiry because it is not dissimilar to me asking someone, "Do you understand the English spoken in the British Isles?" Of course we do, and although there may be some differences, these differences do not usually impede comprehension. This presentation will focus on a dialect of Spanish spoken in the Beni region of Bolivia and a few phonetic, morphologic, syntactic and semantic characteristics unique to this region.

**205**

**THE FOUND IMAGE IN CONTEMPORARY ART**

**Antony Anderson • ART • Anna Arnar, advisor • CMU 101 2:30pm**

My presentation will explore the presence of found images in Contemporary Art. An artist's attraction to found imagery could easily be attributed to the voyeuristic view that a photograph can give into the life of an individual. However, the appeal of these images extends far beyond mere voyeurism. My presentation will discuss recurring themes associated with the use of found imagery including Collaboration, Identity, and Preservation through the work of several artists.

**206**

**WOMEN DISPLAYED BY WOMEN; WITH AN EMPHASIS ON EROTIC IMAGES**

**Laura Zelher • ART • Anna Arnar, advisor • CMU 101 2:50pm**

I've been particularly drawn to the nude body and enjoy working with it, specifically with the female figure. I believe that it is important to study and understand why one is drawing and working with certain images. Through this research I will examine how currently women artists are portraying other women. What posture and positions they depict them. What sort of messages are the artists trying to say through the nude female body. I will be putting a slight emphasis on how women are showing other women through erotic images and what this means for women. Whether this lends itself to the male gaze or whether it rejects it. One artist that I will be looking at is Jenny Seville as well as others in various mediums.

**208**

**THE EFFECTS OF TELEVISION AND SEDENTARY LIFESTYLES HAVE ON CHILDHOOD OBESITY.**

**Brittany Lothspeich • SOC • Susan Humphers-Ginther, advisor •**

**CMU 2:30pm**

Abstract The Effects of Television and Sedentary Lifestyles Has on Childhood Obesity. Childhood obesity was never a problem a decade ago but in recent years the number of children who are overweight or obese has risen to an outstanding number. These days more children are choosing to sit in front of a television or in front of a computer instead of being active. Many food companies are promoting unhealthy foods on television and on the internet. The purpose of this study is to see if these food ads have an effect on children's food choices. We would also like to know if the number of hours spent in front of the television correlates with the child's weight. The more hours spent in front of the television and not being active would increase the chances of the child to be overweight or even obese. Statistics gathered for this topic were from the

GSS (General Social Survey, journal articles and class materials). There are many studies that point out that food companies are marketing unhealthy foods to children by using fun, catchy commercials. Also, there are studies about parent's perception of their child's television viewing habits. Most of the parents do not see a problem with their child spending three or more hours a day in front of a television. If this study does show a significant correlation between childhood obesity and television viewing then hopefully parents or companies will do something to stop this from happening and encourage a healthier lifestyle not only for themselves but also for their children. (Source: Batada, Ameena, Wootan, Margo (2007). Nickelodeon Markets Nutrition-Poor Foods to Children. American Journal of Preventive Medicine. 33,48-50. Meizi, He, Irwin, Jennifer, Sangster, Michelle, Tucker Patricia, & Graham, Pollett (2005). Screen-Viewing Behaviors Among Preschoolers: Parents Perceptions. American Journal of Preventive Medicine. 29, 120-125)

## 209

### ANCIENT CULTURAL AND RELIGIOUS INFLUENCES ON THE MODERN CHINESE LANGUAGE.

**James Greenwood • CHIN • Su-Lin Tal, advisor • CMU 9:30am**

This research is intended to give the reader a deeper understanding of the Chinese Language by providing background knowledge of ancient Chinese culture. These cultural influences extend into everyday speech and are required to truly understand the Chinese people and their language. These influences are found in grammar, idioms, vocabulary, and social structure of the language. The meaning of social structure in this context is encompassed in the interaction among people depending upon different age, sex, and social status. This research can be used for a further mastery of the Chinese language as well as an improvement on understanding the Chinese people.

## 210

### PIE YOUR PROFESSOR FUNDRAISING EVENT

**Amanda Cashman, Katherine Ralston • LEAD • Denise Gorsline, advisor • CMU 214 1:20pm**

After taking Denise Gorsline's Intro to Leadership 301 class, my classmates and I learned more about leadership than just the skills it takes to be a leader. We actually learned how to step up and be better leaders by practicing through experimental leadership. What started as a group project, turned into campus event that made a difference to both the students involved putting on the event, to a local family in need. For the Student Academic Conference, we would like to present about what service learning experiences have done to shape our academic journey and how the leadership minor here at MSUM pushes students to creatively work hard to understand what it means to be a leader. We would like to present about what our group (the FUN'draisers) did for our class assignment. We were asked to fundraise money for any cause we wanted to in 5 weeks. Our group of 5 students put on a campus event called "Pie Your Professor" where we had faculty members get pied in the face for a young girl who was recently paralyzed from Moorhead. Total as a class, we ended up raising over \$10,000 in just 5 short weeks. We would like to share our story to encourage other students to consider taking leadership classes, to get involved with service learning initiatives, and to understand that they too can make an impact.

## 212

### FUN WITH ELECTROSTATICS - EXPLORATIONS OF THE VAN DE GRAAFF GENERATOR

**Ross Smith • PHYS • Linda Winkler, advisor • CMU 214 1:40pm**

A Van de Graaff Generator (VDG) is a device that creates large amount of static electricity. A device was built to test the amount of static electricity coming from the VDG. Motivation for this project comes from the question, "Is lightning a viable source of electricity?" The VDG is a method for simulating lightning in the lab, and before the question of lightning as a viable energy source can be answered, a method for measuring the output of a bolt is needed. A controlled situation (VDG in the lab) was used to build and test the device under different humidity conditions. Since the output of the VDG is extremely high voltage, and occurs over a short interval, a typical voltage meter was of no use. The output of a VDG, like lightning, varies greatly depending upon humidity and other factors. A continuous, well fit curve relating VDG voltage and percentage of humidity in the room was sought after.

## 213

### OFFENSIVE ART: OBJECTIVES AND CENSORSHIP IN ART

**Klere Shaffer • ART • Anna Arnar, advisor • CMU 101 3:10pm**

Art can often be controversial. This presentation examines obscene art and the repercussions that occur from it.

## 214

### GIS AND ITS APPLICATION.

**Nirajan Khakurel • MGMT • Ashish Gupta, advisor • CMU UG 10:40am**  
I will be discussing about the GIS and its different types of application and advantages. One of its application will be explained in detail.

## 215

### EDUCATION AND IT'S AFFECTS ON HEALTH RISKS; FOCUSING ON BREAST CANCER AND SELF EXAMS.

**Rachael Moe • SOC • Susan Humphers-Ginther, advisor • CMU 1:00pm**

Education and Health, related to better health awareness. In research on the GSS (The General Social Survey) it was found that education has an affect on health. The higher the education (IV) the lower the health risks were and better the health (DV). When using this information it is found that if women were better educated on breast exams and awareness, cancer would be less likely to occur or cause death. Education would be defined as early detection education and how to go about this, making education the independent variable. In the end better education would cause better health with breast cancer, making breast cancer the direct health risk in the research and the dependent variable. The only way to help increase the chances of early detection would be to do self exams, so women who have better education on self breast exams would be less likely to have a health risk of developing incurable breast cancer. When proving the hypothesis references such as Promoting Breast Cancer, by Edwards, is used to define the education for breast cancer awareness in five simple steps; know what is normal for you, know what changes to look and feel for, knowledge on how to look and feel and report any changes without delay. This would also include that women aged 50 and over should attend routine breast screenings. The findings show that if women are given this information (education) their chances for breast cancer (health risks) can be lowered. References Lemer,B.H. 1999, Public health then and now. Great expectations: historical perspectives on genetic breast cancer testing. Meyer, B.J. 2007 Why older adults make more immediate treatment decisions about cancer than younger adults. Bodurtha J; Quillin JM; Tracy KA; Borzelleca J; McClish D; Wilson DB; Jones RM; Quillin J; Bowen D, 2009 Jan; 18(1): 41-7 (32 ref), Mammography screening after risk-tailored messages: the women improving screening through education and risk assessment (wiser) randomized, controlled trial. Stephens PA; Osowski M; Fidale MS; Spagnoli C, 2008 Apr; 12(2): 253-8 (21 ref), Identifying the educational needs and concerns of newly diagnosed patients with breast cancer after surgery. Edwards M, 2008 Oct 10; 36(6): 35 (4 ref), Promoting breast awareness.

## 216

### DOES AGE INFLUENCE DIVORCE?

**Dayna Ebnet • SOC • Susan Humphers-Ginther, advisor •**

**CMU 2:30pm**

Does age have anything to do with whether or not a marriage will end in divorce? The hypothesis I am proposing is that there is in fact a direct correlation between age and divorce. I believe that marrying at a young age will increase the chances of divorce later in life. On the contrary, I believe the older a couple is when they get married, they less likely they are to divorce with time. I would also like to research reasons why the divorce rate in the U.S. is at an all time high and if age really does have anything to do with it. The research will be conducted through secondary resources such as the General Social Surveys Cumulative Data File, journal articles, websites, and books. Although this assumption is not directly health related, it can be linked to health. For example, health insurance is harder to obtain as a single person versus a married couple. Also, relationships are a key component to social health and well-being. This study is not meant to discourage young marriage but rather to inform these individuals before making such a huge life decision.

## 217

### MRSA

**Elizabeth Jepson • NURS • Jean Robley, advisor • CMU 9:30am**

The display will be a posterboard presentation on the protocol needed for having a patient with Methicillin resistant staphylococcus aureus (MRSA) and what MRSA is.

## 218

### "ALL THE WORLD AND HIS WIFE COMES HERE": ESTHER EDWARDS BURR AND THE NEW ENGLAND FAMILY STRUCTURE

**Julie Temple • HIST • Margaret Sankey, advisor • CMU 227 9:30am**

In this presentation, I will discuss the nuclear family structure of the New England colonies in the mid-eighteenth century through the letter-journal of Esther Edwards Burr. Esther was the daughter of the famous preacher Jonathan Edwards and the wife of Reverend Aaron Burr Sr.

This presentation examines the relationship between Aaron and Esther as husband and wife, as well as their relationship with their children as parents and shows how they fit into these traditional roles in a family-centered society.

## 219

### UNDERSTANDING E-MAIL OVERLOAD

**Stacey Adams, Samantha Luptak, Jessica Trottier • MGMT • Ashish Gupta, advisor • CMU 204 2:00pm**

In this study, we describe the concept of Email Overload. We will be explaining the definition of e-mail overload, its effects on the workplace, effects on the overall company, and tips and solutions to overcome the problem of e-mail overload.

## 222

### BOTANICALLY SPEAKING, WHAT IS A FRUIT?

**Georgianne Rowe, Katelyn Sperling • BIOL • Chris Chastain, advisor • CMU 227 9:50am**

**Botanically Speaking, What is a Fruit?** The botanical definition of a fruit is formed from the female flower after pollination. The function of a fruit is seed dispersal, which is achieved most commonly by the consumption of the fruit by an animal that excretes the seed in waste. In this presentation we will discuss the formation of the fruit and the process of seed dispersal. We will discuss and exhibit fruits seen everyday and describe them in a botanical sense. We will also include dissections of various specimens in our presentation.

## 223

### INCREASING HIGH SCHOOL STUDENT'S INTEREST IN CHEMISTRY/BIOCHEMISTRY: EXPERIMENTS THAT MEET MN HIGH SCHOOL STANDARDS

**Kaitlin McCarthy • CHEM • Shawn Ellingboe, advisor • CMU 227 10:10am**

Abstract If chemistry or biochemistry is mentioned to a high school student most will cringe, and claim that they are not interested in those subjects because they are too hard, boring or only for "smart" people. More and more American high school students are shying away from the sciences and because of that America's hold at the top of the world science performers is slipping. The Minnesota High School Standards sets the bench mark for high school teachers in what they have to teach to the students. What I plan on doing is organizing one general chemistry experiment (titration), and one biochemistry experiment (extracting enzymes) that high school teachers can do with students that will spark their interest in chemistry. The basic chemistry lab is called PH and Titritable Acidity, whereas the biochemistry lab is called Catalysis using Enzymes in Pineapple. The titration lab will look at the acidity in common foods such as orange juice, raw cabbage, sauerkraut, salami, and dill pickles. In the biochemistry experiment there will be different stages of the pineapple (canned, sun dried, and fresh) will be used to extract the enzyme that hydrolyzes certain proteins. The materials used in these experiments are burets, balances, graduated cylinders, pH meters with electrode, pint jars, blenders, beakers, stirring rods, hot plates, and various food materials. These materials are common among most basic chemistry labs, and are readily available for teacher's use. The experiments will be adapted to fit into the standards that are the hardest for high school teachers to fulfill. They will push into more advanced level of labs so that the students are prepared for a college level lab when they start. These experiments will provide ideas for teachers to do that are within budget, time, and have cost effective materials. I hope to get these experiments into a kit so that a few teachers can consult them and eventually test them in their classrooms.

## 224

### MEASURING FISH PERSONALITY: THE SHY-BOLD CONTINUUM IN ZEBRA FISH

**Sonny Radenic, Cory Sailer • BIOL • Brian Wisenden, advisor • CMU 1:00pm**

**MEASURING FISH PERSONALITY: THE SHY-BOLD CONTINUUM IN ZEBRA FISH** Cory Sailer, Sonny Radenic & Brian Wisenden Biosciences Department, Minnesota State University Moorhead Personality is a term that describes individual differences among individuals. One axis of personality in humans, and range of animals, is the shy-bold continuum. The purpose of this experiment was to develop a method to determine shyness and boldness traits of zebrafish, *Danio rerio*. This was determined by correlating scores from three independent tests of exploratory tendency; exploring unknown territory by swimming through PVC piping, willingness to approach a predator, and overall activity levels. These experiments will enable us to differentiate between shy and bold zebrafish. The significance of this work is that we will then be

able to study the effect of personality on response to indicators of risk, such as chemical alarm cues. Because zebrafish are easy to breed in the lab, we will then be able to conduct artificial selection experiments where we can develop strains of shy and bold fish, and potentially study the genetics of personality.

## 225

### BUTTERFLY DIVERSITY AT THE MSUM REGIONAL SCIENCE CENTER

**Bodini Herath • BIOL • Linda Fuselier, advisor • CMU 227 10:30am**

**Bodini J. Herath1, Sujan M. Henkanaththegedara2 and Linda Fuselier3** Bioscience Department, Minnesota State University Moorhead, Moorhead MN. 2 Department of Biological Sciences, North Dakota State University, Fargo ND. 3 Bioscience Department, Minnesota State University Moorhead, Moorhead MN. Abstract Urban Biodiversity is one of the major components of global biodiversity. Isolated habitat fragments surrounded by urban and agricultural developments provide refuges for most organisms and can be crucial for their survival. Butterflies are conspicuous components of open habitats, including urban areas, and are indicators of habitat quality. A field survey of butterflies at the MSUM Regional Science Center, (RSC) was conducted to make an inventory and to document diversity. Data on species richness, species abundance and habitat preference were collected using line and point transects from May - September 2008 on a biweekly basis. The butterfly community is represented mainly by open- grassland species. A total of 19 butterfly species which belong to 4 families were found (Nymphalidae: 10 species; Hesperiidae: 5 species; Pieridae and Lycaenidae: 2 species each). Butterfly species diversity and richness peaked in late July, but butterflies were most abundant in late August. Since butterflies are very sensitive group, even a slight variation of environmental conditions might alter the species richness and composition. Weather changes, air pollution, habitat loss and replacement of food plants by invasive species are major threats. The RSC acreage still supports a rich butterfly fauna.

## 226

### MAPS! MAPS! MAPS! A CULTURAL INTERPRETATION OF GEOPHYSICAL IMAGES GENERATED FROM THE BIESTERFELDT SITE.

**J Chrys Harris • ANTH • Rinita Dalan, advisor • CMU 2:30pm**

In archaeology, geophysical prospection uses non-invasive methods to "see beneath the soil" and detect archaeological features. These surveys are used to generate images and maps of sites without having to excavate the sites themselves. My research analyzes electrical resistance and magnetometry maps created from these geophysical surveys at the Biesterfeldt site, an earth lodge village in southeastern North Dakota. These maps span the entire known area of the site. Analyzing and comparing these maps is important in further understanding how the site area was used by its occupants; I will also incorporate historical maps and excavation data as further evidence for my cultural interpretation.

## 227

### PROGRESSIVE JAZZ: NEW DEVELOPMENTS FROM OLD IDEAS

**Michael Barrett • MUS • Laurie Blunsom, advisor • CMU 204 3:14pm**

Bill Evans is one of the best known jazz piano players to ever have lived. His style was unique, influenced by classical piano. His demeanor was serious. His performances were timeless. His style...was progressive. What defines progressive jazz? What influenced Bill Evans' "progressive" style? What was so unique about his playing? His playing leaves the listener with a deeper desire to understand these elements. In this presentation, I will discuss Bill Evans' style as a jazz pianist and discuss the influences of the musical influences on his style of progressive jazz.

## 228

### HUSSEIN CHALAYĀN: FASHION IN THE ART WORLD.

**Lacey Kvamme • ART • Anna Arnar, advisor • CMU 101 3:30pm**

Art 450 presentation on Hussein Chalayan. How fashion is part of the art world and also on the sculptural work Chalayan and moved into fashion and on the runway.

## 229

### U.S. IMMIGRATION POLICY IN THE CONTEXT OF THE COLD WAR

**Kazue Aida • POL • Barbara Headrick, advisor • CMU 208 3:10pm**

I searched how U.S. immigration system has changed in the context of the Cold War. I will try to answer to what extent the United States accepted or refused the immigration from the communist countries in the face of the expansion of communism after World War II.

## 233

### THE USE OF VO<sub>2</sub> MAX AND HYDROSTATIC WEIGHING FOR OPTIMAL PARTICIPANT TRAINING

Elizabeth Jagol • BIOL • James Gemar, advisor • CMU 9:30am

Our focus is to follow a scientifically bases protocol of a human participant to assess body volume and body density through the methods of hydrostatic weighing and to measure maximum oxygen consumption using a VO<sub>2</sub> assessment test. Readings and measurements may be used to better a person's maximum aerobic power that would contribute to sport and physical activity and to help better our understanding of the physiological variables that can be directly measured for further research. This information will provide us with a comparison for a sensible exercise prescription; a fitness assessment, evaluation of progress, motivation for attainable goals, and risk stratifications which can be used to the participant's advantage for a proper and beneficial training routine.

## 235

### HOW HEALTHY ARE MY LEAVES? USING THE FLUOROMETER TO ASSES THE PHOTOSYNTHETIC HEALTH OF LEAVES.

Bodini Herath, Julie McGeary • BIOL • Chris Chastain, advisor •

CMU 1:00pm

Photosynthesis is a biological process which harvests energy from the sun to power plant cellular processes. The most active photosynthetic part of plants is the leaves. This is due to the many chloroplasts contained in the leaf cells, which are full of the specific light-absorbing green pigments, known as chlorophylls. A healthy plant has a high concentration of chlorophyll indicating relatively high photosynthetic rate. The chlorophyll concentration of a plant tissue can be estimated, using a device known as a Fluorometer. This exhibit will demonstrate and interpret photosynthetic measurements of plants given by the Fluorometer.

## 236

### GLASS WARMTH AND LIGHT: THE APPLICATION OF LIGHT IN THE BIGELOW CHAPEL

Levi Tronnes • HIST • Margaret Sankey, advisor • CMU 216 10:30am

Light and divinity the equality between the two has been used for centuries in the development of sacred architecture. Churches, cathedrals, the places of peace and worship have used the element of light to exhibit a divine or heavenly presence. Abbot Suger evolved this concept in the 13th century with the combination of stained glass and light as common elements in the genre of church architecture. The genre of church architecture evolved through promotion of an idea, a visual representation of god on earth by his divine light. In the past sacred buildings have served as a reminder to the community that God's presence is indeed prevalent in the world. Though some still question the existence of god in the modern world? The answer to this complex question can be found in church architecture. Church architecture over time has become adorned with unique symbols that are expressed in the exterior and interior materials of a structure. Various time frames and geographical locales have established what Art History calls styles some of these styles as defined in the 21st century are Byzantine, Romanesque, Gothic, Renaissance, and Baroque and so on. Each age has its own method of expressing the sacred interpretation symbolically and theologically of humanities understanding of God and his relationship to the world.

## 237

### PLAYING JAZZ

John Giedosh • MUS • Laurie Blunsom, advisor • CMU 204 2:50pm

John Giedosh Abstract Senior Writing Class Dr. Blunsom 2/23/09 What is jazz, this is a question, which if asked on the street, would receive many, many different answers. During my time here at MSUM, where I have studied this music, I have come to somewhat of a conclusion. Jazz music comes in all sorts of styles and varieties, but one of the core parts of jazz is a freedom to interpret most songs in anyway one would see fit, and to have the ability to solo, or play over the chords in a appropriate style, and most importantly, in a tasteful manner. This report is about one of my final requirements for my degree, a senior recital, in which I have used it to further understand my job as a musician to correctly, and tastefully interpret this purely American music, and add just a little of my own twist. If you listen to any of the predominant musicians in the last 100 years, including Thelonius Monk, Miles Davis, John Coltrane, just to name a few, you will hear a style that is dominant in the jazz lexicon, and that is called swing. Swing typically has a suto-shuffle feel, with the drummer playing a constant uneven eighth note pattern, followed by a quarter note, the drummer and bass then play together, or "locked in" to create a steady time feel. This is a result of a fusion of styles brought

together in America by mixing the music of Africa, and all it's rhythms and the eastern European harmony., according to Marshall W. Stearns, in his book, The Story of Jazz. My recital has close to half of the songs belonging in this style, including Very Early, by Bill Evans, Stablemates, by Benny Golson, and a original, In The Pocket. The song Stablemates is a interesting tune, from a harmonic stand point, since it has many chords that seeming resolve to other chords, but instead take a u-turn and end on a seemingly odd chord, but a chord that fits none the less. In the third measure of the tune, there is a Db major 7th chord, which then changes to a c7#5 chord. This is a interesting point since one can use the Db major scale, and then when the C7#5 happens, just change the F to a Fb, and you would be using a very interesting scale, the minolydian flat six scale, a mode of melodic minor. The B section of this tune, or the bridge is also interesting, since it mostly is made up of plainning dominant 7th chords, which start at C7 and move in half steps down to Ab7, this odd set of chords allows for many interesting treatments. One may treat these as sub-dominant to dominant chords, as it moves downward by half steps, which become quite tricky to juggle the chords, as the tune breezes by. As stated before, this tune is a swing tune, featuring swing rhythms and feel, until the end of the A section, which contrasts with a four bar "latin" feel. This is also called bossa nova, which has straight eight notes, that are not swung, instead they are even, contrasting as swing is reestablished, going into the bridge. After one considers these two important factors, you have to realize the nature in which you are playing these tunes, are you using piano, bass, and drums, or maybe glockenspiel, banjo, and timpani. Despite the wacky potential of these groups, this song will be preformed by two guitars, or as its more commonly know, as a guitar duo, which I will be doing with local guitarist, Robert Lemming. Typically when one is in this format, one person plays the melody as the other plays a complementing harmony part, using chords to create support for the melody. Then after that, one person solos, usually the person playing the melody, then the other. Then the first person plays again, but only for four bars, then the other person plays for the next, as the first person covers the harmony, and they switch off for a few chorus'. This treatment is very common, and is often the unspoken "road map" taken when musicians get together and play such music. Very Early is the next piece, this piece is much the same except that it is in 3/4 time. This is commonly known as waltz time, which is often heard predominantly in polkas, this creates a nice contrast since the other tunes will be played in 4/4 time, or common time. This tune will be played in the guitar trio format, which has guitar, bass, and drums only. With only one harmony instrument, this will create a interesting challenge for the guitarist, since he has to juggle not only the harmony, but the melody and a riveting solo too. The next swing tune is called In The Pocket, a tune I wrote, which is played over standard jazz blues., which will be played in the guitar trio format. The jazz blues is closely related to a garden variety blues, but it has many chord subtitutions, or more chords are added in to further propel the harmony, and harmonic soloing options, while the soulful wailing often heard in simpler blues is retained. The next section involves another important part of the jazz lexicon, straight 8th music. This can encompass a lot of music, often including bossa novas, funk, and rock. These styles have 8th notes that are even, unlike the lopsided 8ths of swing. The first tune is a tune by Pat Metheny called, Bright Size Life, this tune will be played by guitar and chapman stick. The Chapman stick is a instrument that Emmet Chapman invented, and later produced in 1974. (stick.com) It is basically a fusion of a guitar and bass, but instead of plucking or strumming the strings, one holds the instrument vertically, and taps with both hands, playing it in the same manner a pianist would, with the piano. This will be played with the guitar playing the melody, and stick covering the harmony and bass part. Like in Stablemates, there will be two solos, followed by trading of 4s, then the melody played yet again. The tune is played in a mutation of a latin feel, with straight 8ths and with much syncopated cross rhythms, adding further interest. The harmonic considerations are vast in this tune, the first chord is G major 7, then Bb major 7. One approach, often called the common tone approach would to be take a G major scale, and then alter only the chord tones, so that they can be heard to outline the harmonically important chord tones for the Bb major chord, this case it would be the D and the A. Since they already belong in the G major scale, you don't change anything, and can keep playing a G major scale over the Bb major scale. This may sound "out there", and must be used with discretion. The bridge, or B section starts off with a G major 7 chord, then goes to a F major 7th, using the common tone approach, would give the soloist quite a dissonant pallet to choose from. After that, the chords A7 and D major 7 appear, creating a dominant to tonic progression, leaving the obvious choice to play in D major, but one can add notes outside of the scale, adding in tasteful dissidence. The next tune, PDX, a tune I wrote sometime last year after a memorable trip to Portland Oregon, which uses a odd time signature, 5/4, as heard in the tune Take 5 by Dave Brebeck. This meter has not

four beats in a measure, but rather five, and in this case, the feel is 1-2-3, 1-2, 1-2-3, 1-2. Another interesting feature harmonically is that use of mostly static harmony, with chords moving around every four to eight bars only, leaving enough space for the musicians to play more texturally, rather than harmonically against the chords, providing a unique way to establish development and contrast when soloing. This tune will be performed with the combo, which includes: tenor saxophone, trumpet, guitar, piano, bass, and drums. This set up allows for more horns to input something interesting into the arrangement, which I took advantage of, and wrote complementing horn lines to be played, in a call and response to the rapid fire melody, as played by the guitar. The last tune I will talk about is the Dove Gloria, by Wayne Krantz, which will be played by the guitar trio yet again. Harmonically speaking, this tune isn't all that interesting,, featuring mostly major chords, moving diatonically, resolving and moving around. Rather, the interest in this tune is that it is more of a "groove" tune, or a tune that relies more on the established pulse and drum pattern, and how both all of the instruments interact within setup groove. In conclusion, I have learned quite a lot having to put together not only a recital, but the research for it. I have interviewed many of the brightest minds around that have spent years studying this music, and I feel that talking with them, the tradition of jazz lives on, and will continue to live on for years to come.

#### 238

#### OF ANGELS AND OTHER WORLDS: AN ANALYSIS OF THE SPIRITUALITY AND CONTROVERSY IN PHILIP PULLMAN'S "HIS DARK MATERIALS"

**Samuel Reinke • SPAN • Benjamin Smith, advisor • CMU 207 2:30pm**

In the year 1995, the first novel of the His Dark Materials trilogy, written by English author Phillip Pullman, began the tale of Lyra Belacqua with The Golden Compass (known as The Northern Lights in the United Kingdom) continued with The Subtle Knife in 1997, and concluded with The Amber Spyglass in 2000. From its beginnings up to the present, this fantasy series has enjoyed massive praise and endured much skepticism for its very controversial topics, including the concept of the multiverse, the Republic of Heaven, Original Sin, the actions of organized religion, and of course, the destruction of God Himself. But, is the series given undue criticism for its content? What exactly is it in the series that evokes such strong feelings? This presentation will discuss some of the more controversial topics and themes on the universe and spirituality in the His Dark Materials series.

#### 240

#### LOVE YOUR HEART

**Jennifer Gerberding • NURS • Jean Robley, advisor • CMU 2:30pm**

Poster presentation will promote prevention practices in the development of heart disease. Prevention practices will focus specifically on diet.

#### 241

#### DIFFERENT TYPES OF SHOCK: SEPTIC, ANAPHYLACTIC, AND HYPOVOLEMIC.

**Megan Moller • NURS • Jane Bergland, advisor • CMU 9:30am**

This project will use a posterboard to display information on different types of shock. Three different types of shock will be presented and information about them will be displayed. The different types of shock will include the following: septic, anaphylactic, and hypovolemic. The information will include pathophysiology of each different type of shock, signs and symptoms of each, what causes each, and medication administration and nursing interventions used to treat them.

#### 242

#### CHRONIC PARAPLEGIA IS ASSOCIATED WITH ABNORMAL CARDIAC AUTONOMIC BALANCE, CHANGES IN HEART RATE VARIABILITY, AND CHANGES IN SPONTANEOUS BAROREFLEX SENSITIVITY AND GAIN IN SPRAGUE DAWLEY RATS.

**Shandon Collins, Daniel Fetzer • BIOL • David Rodenbaugh, advisor • CMU 9:30am**

Roughly 250,000 to 400,000 Americans suffer every year from spinal cord injury (SCI) with 11,000 new injuries reported every year. Through research and rehabilitation, SCI individuals are reaching life spans near that of able bodied individuals, yet cardiovascular (CV) problems continues to be their leading cause of death. The susceptibility to CV disease may be due largely to significant changes to the autonomic nervous system after SCI. SCI is known to increase the sympathetic tone of the heart, which in conjunction with parasympathetic tone makes up cardiac autonomic balance (CAB). These autonomic changes may also affect heart rate variability (HRV) and baroreflex. We hypothesize that CAB will become more positive, HRV will decrease, and spontaneous baroreflex sensitivity and gain will increase over time in SCI Sprague-

Dawley rats. To test our hypotheses, male Sprague Dawley rats will undergo dorsal laminectomy and spinal cord transection between T4-T5 or sham transection for control. Animals will then be instrumented with radio telemetry catheters to enable the measuring of blood pressure and other hemodynamic variables. This data will then be analyzed using LabChart Pro to determine changes in CAB and HRV. Data will also be sent for baroreflex analysis by Hidefumi Waki using Hey-Presto (Japan) software.

#### 243

#### HOW ENVIRONMENTAL CHANGE CAN INTENSIFY THE EFFECTS OF NATURAL DISASTERS: HURRICANE KATRINA

**Megan Aasness • HIST • Nathan Clarke, advisor • CMU 203 10:10am**

I will give a short presentation on the environmental changes made in Mississippi, especially in their wetlands, that intensified the effects of hurricane Katrina. I will give an overview of how the wetlands protect against flooding, the changes made by the government and businesses that caused deterioration of the wetlands, and how these changes intensified the flooding effects of Hurricane Katrina.

#### 244

#### THE OBSTETRICS NURSING ROLE

**Megan Aasness • NURS • Jean Robley, advisor • CMU 2:30pm**

I will be giving an overview of the role of an obstetrics nurse the position that I took on for my nursing preceptorship. I will be going over the flyers I created to remind mothers to put their infants on their back to sleep and of the importance of tummy time.

#### 245

#### DOCTOR-PATIENT COMMUNICATION: AN APPLICATION OF THE LEAST PREFERRED COWORKER SCALE

**Shandon Collins • CMST • Jason Anderson, advisor • CMU 216 1:00pm**

For many years, effective communication skills have proven to be a very useful tool for physicians to initiate successful interactions with patients. For example, ineffective communication between physicians and patients can lead to decreased medication adherence which in turn could lead to drug overdose or adverse drug events which could lead to unnecessary hospitalizations, drug prescriptions, and higher costs (Tarn et al., 2006). Our study seeks to find if there is a significant difference in the way that physicians and patients perceive communication competency and to find if there are communication skills that are most preferred by patients. In order to determine patient-favored communication skills, we will survey patients about their perception of their least preferred physician in addition to their own communication behavior during their last conversation with this physician using an adaption of Fielder's Least Preferred Coworker Scale, Spitzberg's Rating of Alter Competence Scale, and Spitzberg's Self-Rated Competence Scale.

#### 246

#### THIN FILM DEPOSITION IN A VACUUM SYSTEM

**Thomas Mooney • PHYS • Stephen Lindaas, advisor • CMU 216 1:20pm**

The Physics department has a vacuum system that we are refurbishing to use for thin film deposition. We are making thin aluminum films which act as partially reflective mirrors that let some light through but also reflect some light, similar to two way mirrors. We are characterizing the system and the deposition process and creating a user's manual. In this presentation we will explain how we make mirrors in the vacuum system. We will also show mirror samples and explain how varying our methods of creating these mirrors results in mirrors with different characteristics.

#### 247

#### PAST, PRESENT AND FUTURE OF IT AND HOW IT HAS EVOLVED.

**Bryan Larson, Amanda Lindseth, Dave Wasness • MGMT • Ashish Gupta, advisor • CMU 214 10:10am**

We are going to discuss the advances of Information Technology beginning with the start of the popularity of personal computers in the Early 1980's and how the internet has progressed. We will talk about how IT has impacted businesses around the globe, from affordable technology to globalization, as well as what might be in store for the future.

#### 248

#### AUTISM

**Christine Jovanovich • SPED • Ann Goldade, advisor • CMU 9:30am**

A challenging aspect of autism is that children cannot assess sensory input properly. Autistic children cannot perceive fear or dangerous situations or ignore stimulus. Autistic children normally have many

biomedical and neurological problems, many even suffer from chronic diarrhea because their intestines are so damaged and cannot absorb vital nutrients, minerals and vitamins that are essential for normal brain function. Liver and kidney functions are impaired along with their immune systems being damaged,to the point of not being able to fight off the simplest bacterial infection. What happens to children after 15 to 20 months of age? This is the time when Autism normally occurs. Why do certain children begin to regress losing speech, social skills, and physical abilities. With these skills at a minimum, the child begins to live in their own world. This developmental disability will be looked into in a more precise manner, to answer these questions and more.  
(WWW.Unlocking Autism)

## 249

### AUTISM: CHALLENGES AND PERCEPTIONS

**Christine Jovonovich • SPED • Ann Goldade, advisor • CMU 1:00pm**  
A challenging aspect of autism is that children cannot assess sensory input properly. Autistic children cannot perceive fear or dangerous situations or ignore stimulus. Autistic children normally have many biomedical and neurological problems, many even suffer from chronic diarrhea because their intestines are so damaged and cannot absorb vital nutrients, minerals and vitamins that are essential for normal brain function. Liver and kidney functions are impaired along with their immune systems being damaged,to the point of not being able to fight off the simplest bacterial infection. What happens to children after 15 to 20 months of age? This is the time when Autism normally occurs. Why do certain children begin to regress losing speech, social skills, and physical abilities. With these skills at a minimum, the child begins to live in their own world. This developmental disability will be looked into in a more precise manner, to answer these questions and more.  
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## 250

### CHALLENGES AND PERCEPTIONS OF AUTISM

**Christine Jovonovich • SPED • Ann Goldade, advisor • CMU 2:30pm**  
A challenging aspect of autism is that children cannot assess sensory input properly. Autistic children cannot perceive fear or dangerous situations or ignore stimulus. Autistic children normally have many biomedical and neurological problems, many even suffer from chronic diarrhea because their intestines are so damaged and cannot absorb vital nutrients, minerals and vitamins that are essential for normal brain function. Liver and kidney functions are impaired along with their immune systems being damaged,to the point of not being able to fight off the simplest bacterial infection. What happens to children after 15 to 20 months of age? This is the time when Autism normally occurs. Why do certain children begin to regress losing speech, social skills, and physical abilities. With these skills at a minimum, the child begins to live in their own world. This developmental disability will be looked into in a more precise manner, to answer these questions and more.  
(WWW.Unlocking Autism)

## 251

### THE CONSEQUENCE OF THE DIFFERENCES BETWEEN MEN AND WOMEN WHEN UTILIZING HEALTHCARE

**Tara Herrmann • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am**

It seems as though it has always been a common knowledge that there are differences between men and women; rooted biologically, psychologically and sociologically. In addition, it is known that these differences affect behaviors. One of those behaviors is going to the doctor. Many studies have shown that men aren't as likely to seek help when they are sick. The General Social Survey, a random sample survey of the United States conducted by the National Opinion Research Center, found that more female participants felt sick enough to go to the doctor than their male counterparts. This survey supports the idea of the differences between males and females, yet the difference in behavior could be potentially dangerous if it causes one sex to out live the other sex. Research has shown that women often times do live longer lives than men. Bridging the gap between the statistics of men and women's doctor seeking behavior and the life expectancy for both sexes along with the research done on the bio-psycosocial differences of men and women, will shed light on the expense of sex differences. Knowing the adverse affects may encourage social change in gender roles and the way people pursue healthcare.

## 252

### HEALTH LUNGS LEAD TO HEALTHY LIVES

**Kelsey Kleindl • SOC • Susan Humphers-Ginther, advisor • CMU 1:00pm**

Smoking is a substance which affects multiple people in numerous ways. It not only affects a person's physical health, but also almost all other aspects of life. The longer a person smokes also increases their chances of developing diseases related to smoking. My topic focuses on the relationship between the length of smoking and how smoking then affects a person's overall health and lifestyle. People do not understand exactly how harmful smoking can be to not only themselves, but others around them and their overall life. With more education, people may change their perspectives of smoking at younger ages. It is important to do more research on all the effects of smoking and relay them to the population to help increase their knowledge and then possibly their views on smoking. I will be using data from the General Social Survey to analyze the relationship between length of time spent smoking and affect on health.

## 253

### MECHANICAL HUMANITY AND HUMAN APATHY IN WALL-E: A RHETORICAL CRITICISM

**Stephanie Simonson • CMST • Timothy Borchers, advisor • CMU 203 3:30pm**

WALL-E's website features the following quote: "In a distant, but not so unrealistic future, where mankind has abandoned earth because it has become covered with trash from products sold by the powerful multi-national Buy N Large corporation[...]" My presentation will discuss consumerism, environmentalism, and mechanical humanity as portrayed in the Disney/Pixar film WALL-E. WALL-E includes many hidden messages, some of which my presentation will discuss. Come find out what you missed!

## 254

### THE EFFECTS OF DEPRESSION ON SCHOOL-AGED STUDENTS

**Joseph Kuntz • SPED • Ann Goldade, advisor • CMU 2:30pm**

My presentation will be about the effects that depression has on school-aged children. Some of the main components of this presentation will surround such areas as the signs of depression and potential risks for suicide, as well as the appropriate actions needed to be taken in order to prevent such drastic behaviors. Along with these ideas, my presentation will consist of the prevalence rates for depression, assessment techniques, and outcomes seen in school-based programs. I will give this presentation with the aid of poster board (as specified by my instructor) and it should take roughly 20 minutes. In giving this presentation, I hope to expand my knowledge, as well as others, to the effects that depression has on school-aged children.

## 255

### COMPUTED TOMOGRAPHIC SCANNING

**Matthew Mumm • PHYS • Stephen Lindaas, advisor • CMU 214 2:00pm**

Computed tomographic scanners are used in today's medical settings to create 3D models of the human body and provide a means for easy and accurate diagnosis. By taking several two-dimensional X-ray images (projections) of an object as it is rotated, a 3D model can be created by using a method called filtered back-projection. For this project a small tabletop version of a computed tomographic scanner was constructed by using an X-ray apparatus. Two-dimensional X-ray shadows from an object are projected onto a phosphor screen, creating a projection with shades varying due to the object's density. To collect each image from the phosphor screen, a lens with a 500mm focal length used to focus the image onto the CCD chip of a camera. The object of interest is then rotated to obtain pictures from different orientations. The reconstructed 3D image is then created using visualization software. We will describe our system and show the resulting 3D images created.

## 256

### TITLE: YOUNG CONVICT CICHLIDS (AMATITLANIA SQUIA) USE VISUAL INFORMATION TO UPDATE OLFACTORY HOMING CUES THAT OCCUR AT A CERTAIN TIME IN THEIR DEVELOPMENT.

**Susan Bury, Thomas Dye • BIOL • Brian Wisenden, advisor • CMU 9:30am**

Abstract: Convict cichlids are small freshwater fish native to Central American lakes and streams. They form monogamous pair bonds and jointly prepare and defend a nest. When the eggs hatch, the female and male protect the young from predators for 4 to 6 weeks, until the young are able to live independently. Until then, survival of the young depends on staying near their parents for protection. At what time during their larval stage can they recognize "home"? In a previous study we show

that larval convict cichlids are attracted to the chemistry of their own tank water versus blank, and prefer home tank water over tank water from an unrelated family. We also showed that young learn the smell of their family by associating water chemistry with the visual presence of their parents. This learning mechanism allows young to constantly update the "smell of home" as the family wanders about the stream during the day. Young in our experiment recognized "home" based on its chemical signature. This behavior would be important to orient toward the location of the family if they were to be separated from their family by a predator attack. The size of the larva will play a critical role in the boldness of the individual. The experiment will test to find a time period in the larval stage in which finding "home" is more beneficial than hiding.

**257**

#### **ALCOHOLISM AND RACE**

**Amanda Younggren • SOC • Susan Humphers-Ginther, advisor • CMU 1:00pm**

Alcoholism has become an increasing problem within our society. There are many factors that lead to alcoholism, including race and other environmental factors closely related to race. Different races are exposed to alcohol in different ways, leading to a varying susceptibility to alcoholism. Additional research is needed in this area to determine what these ways are and what we as a society can do to help. The proposed research is based on the hypothesis that minority races are more likely to consume larger amounts of alcohol and have the greatest risk of acquiring alcoholism. Using the General Social Survey and previous scholarly research, the combination of these findings will work together to provide further support for this hypothesis. In the General Social Survey, the variables being compared are race and the maximum number of drinks consumed in a sitting. The resulting data will have implications for what society can do to help reduce the negative exposure to alcohol that all races are subject to.

**258**

#### **THE EFFECT OF INTERNATIONAL TRADE ON HUMAN DEVELOPMENT IN DEVELOPING COUNTRIES: A STATISTICAL ANALYSIS**

**Lindsay Brustad • ECON • Oscar Flores-Ibarra, advisor • CMU 216 1:40pm**

Abstract- Economic theory supports the idea that trade between countries increases income in those countries. Opponents to free trade argue that while income may increase for some; the overall effect on human development is negative. Using data from developing countries, I use a statistical analysis to show the relation of openness to trade in countries with their Human Poverty Index (HPI). The HPI is a measure of the lack of development in a country. When controlling for other factors known to affect economic development, my analysis shows that a higher level of openness to trade is positively related to the HDI of a country.

**259**

#### **HOW DO DIFFERENT ELEMENTS AFFECT HOW HUMANS PERCEIVE PITCH?**

**Allison Laybourn • MUS • Laurie Blunsom, advisor • CMU 214 2:30pm**

How do different elements affect soundwaves? In turn does this affect how we perceive musical pitch? Do we get a different perception of music if we listen to a composition through different elements such as helium vs. oxygen? In this presentation I will: Discuss how elements may have an effect on the production, the travel and the receiving of soundwaves. Cover a handful of examples and a couple of experiments. With the collected information figure out if it is possible to propose if we do indeed perceive music differently under different circumstances. This topic is interesting to me because it is not a common subject, I have a huge interest in science as well as music and we never covered this in the physics of music class.

**260**

#### **STRUCTURAL UNEMPLOYMENT IN THE FARGO MOORHEAD AREA**

**Jacob Claussen • ECON • Oscar Flores-Ibarra, advisor • CMU 218 9:30am**

The Beveridge curve depicts the relationship between the rate of unemployment and the job vacancy rate. A careful analysis of the Beveridge curve can be useful in gauging how efficiently unemployed workers are matched to productive jobs. This paper attempts to measure this relationship over the period of 1991 through 2006 for the Fargo, ND-Moorhead, MN Metropolitan Statistical Area. The preliminary results do not show a definitive statistical relationship between the unemployment rate and the vacancy rate (in the form of a statistical proxy). It appears that some unknown factors affect the relationship between the vacancy

rate and the unemployment rate in the Fargo Moorhead area over time, as indicated by the significance of yearly shift dummies added to the regression.

**261**

#### **ENERGY AND OUR ENVIRONMENT: BUILDING A ZERO ENERGY HOUSE.**

**Jonathan Anderson, Daniel Brako, Kayla Cordes, Kathleen Kretschmer, Matthew Mayala, Laura Rehn, Jennifer Spencer, Alaina Steele • PHYS • Stephen Lindaas, advisor • CMU 2:30pm**

Our goal is building an energy efficient home for a single family. With the consideration of cost effectiveness and environmental friendliness in regards to heating, cooling, insulation, pollutants, garden, water and others with a common goal of coming as close as possible to zero net energy.

**262**

#### **NET ZERO DORMITORY COMPLEX...LIVING OFF THE GRID**

**Aashana Dhankher, Tyler Flaa, Morgan Hoyt, Maxfield Johnk, Veronica Leaf, Michael Ostman, Bin Valentine, Daniel Watkins • PHYS • Stephen Lindaas, advisor • CMU 2:30pm**

The goal of this project is to create a multi-person residence to be as energy efficient as possible. To achieve this we must utilize renewable energy in order to prevent the further depletion of our finite resources. It will be constructed with regional resources and will attempt to be a plausible option for those living in this area.

**263**

#### **THE AILING WARLORD; A LOOK AT THE MEDICAL HISTORY OF ADOLF HITLER**

**Stacey Richter • HIST • Margaret Sankey, advisor • CMU 214 2:50pm**

This paper makes an effort to sort through the medical mystery surrounding Adolf Hitler in the 1930's. Topics covered include, Hitler's many doctors, the multiple medications he was taking, and the speculated illnesses of Adolf Hitler.

**264**

#### **POLICING THE INTERNET**

**Patrick Amberson, Steven Gullfolle, Alex Kotchian,**

**Brett McClintock • BUS • Ashish Gupta, advisor • CMU 1:00pm**

Looking at the numerous capabilities the internet allows us to pursue, it's important that we are able to monitor and track down those who take advantage of this essential information source. With more activities being done online, internet provides a unique medium for people to interact and share ideas and information. However, these activities also come at a price. With nearly everything having a digital medium, it allows for easier copying and sharing via the internet. Examples are the stealing, sharing, and hacking of music, movies, online gambling, and cheating. The methods currently being used to find these criminals are constantly evolving and changing. This study focuses on those methods and the tools used to prevent these criminal activities.

**265**

#### **CHILD SEXUAL ABUSE**

**Ashlee Archer • CCGE • Jarlyn Gess, advisor • CMU 2:30pm**

The poster board presentation will consist of child sexual abuse statistics, characteristics, warning signs, and long term behavioral problems. In addition there will be statistics and characteristics of perpetrators, as well as the holding environments of the child. Child sexual abuse occurs more often than one would think, so it is important to educate the public on this issue. The presentation will also give a few suggestions and safety measures to help protect children from sexual abuse.

**266**

#### **EXPLAINING THE QUALITY OF LIFE TRENDS WITH THE HUMAN DEVELOPMENT INDEX**

**Kathryn Bergee, Troy Olson • POL • Richard Lahti, advisor • CMU 214 3:10pm**

The Human Development Index (HDI) is a measure used by the United Nations to measure the quality of life in one country relative to another country, based off of education, life expectancy and per capita gross national product. However, the HDI gives a mean average. Two factors make this measure incompatible with actual quality of life. First, additional income above some minimum threshold guaranteeing adequate access to education and health care does little to improve the quality of life. Thus, it may not be as important to look at the mean as the percent of the population that is above or below this threshold. Second, in countries with a large variation in quality of life, a elite few earning

incomes thousands of times higher than the average worker can obscure the fact that a large percent of the population in fact suffers from an income far below the mean. In no developed country is this mismeasure more apparent than the United States, as the United States lags behind several countries with significantly lower (30%) per capita GDP in life expectancy, infant mortality, education and other factors that contribute to a high quality of life. The purpose of this research was to calculate a measure of spread (standard deviation) of the HDI for countries and to see if it could be used to better explain trends in the quality of life for a country than the HDI alone.

**267**

**GENETIC VARIATION AMONG LIVERWORT POPULATIONS:  
EVIDENCE FOR INCIPIENT SPECIATION**

**Azhar Bougary • BIOL • Linda Fuselier, advisor • CMU 214 3:30pm**

Liverworts are often habitat-specific and live in populations isolated by long distances. Because of their isolation, these populations are ripe for the evolution of cryptic species. Cryptic species diverge at the molecular level but remain morphologically indistinct. We used DNA sequencing to examine genetic differences among five populations of the liverwort, *Marchantia inflexa*. We sequenced two chloroplast introns and one mitochondrial gene and used phylogenetic analyses to investigate relationships among the populations. Our results are preliminary but significant in that they indicate close relationships between populations that are geographically distant.

**268**

**EFFECTS OF TEMPERATURE ON ZEBRAFISH CHEMICAL CUES**

**Jeffrey Henry, Jacob Vossler • BIOL • Brian Wisenden, advisor •**

**CMU 9:30am**

**EFFECTS OF TEMPERATURE ON ZEBRAFISH CHEMICAL CUES** Jeff Henry, Jacob Vossler and Brian Wisenden Biosciences Department, Minnesota State University Moorhead Zebrafish (*Danio rerio*) are known to release chemical cues upon skin tissue destruction that inform other nearby fish of the presence of a predator. In our study, we will test the effect of temperature on the duration of viability of these chemical cues. Viability was quantified by behavioral response of fish to chemical alarm cues derived from skin extract. We stored batches of homogenized zebrafish skin tissue and held the resulting extract at three different temperatures before freezing. We then injected each cue treatment into experimental tanks containing two fish each, and recorded fish movement over a period of 5 min. The activity of fishes under each treatment will then be compared to determine the effect of temperature on their viability and detectability of chemical alarm cue.

**269**

**ADDITIONAL EXPERIMENTS SUGGESTING THAT NEUTRAL NICKEL IS SOLUBLE IN SILICATE MELTS AT LOW CONCENTRATION.**

**Tabb Prissel • GEOS • Russell Colson, advisor • CMU 1:00pm**

Metal nuggets are often observed in experiments run at low fO<sub>2</sub> in silicate systems. Whether these beads were in suspension during the experiment or formed by exsolution during the quench remains unclear and has significant implications for petrogenesis at low fO<sub>2</sub> such as volcanism on the Moon or the separation of Earth's core. We have performed two experimental tests of whether neutral Ni is in solution prior to quench or present as sub-micron sized nuggets in suspension: 1) If neutral Ni is present in solution prior to quench, then quench rate should affect nugget size and density and 2) if nuggets form due to exsolution during quench then the solubility of the metal must increase with increasing temperature. Results are consistent with zero valence Ni forming by exsolution although several experimental complexities remain unexplained.

**270**

**SYSTEMIC ACQUIRED RESISTANCE RESPONSES IN CUCUMIS SATIVUS**

**Paul Nicholls • BIOL • Andrew Marry, advisor • CMU 2:30pm**

Systemic Acquired Resistance (SAR) is the primary mechanism for defense against fungi, viruses and larger parasites. Primarily it is characterised by changes in the cell wall including lignification mediated by peroxidases, silica deposition and likely pectin remodelling. Presently the best studied organism for plant research is *Arabidopsis thaliana*, however this is not suitable for large scale studies of cell wall biochemistry. Here we present ongoing data attempting to establish a definite chronology of protein expression, gene upregulation and changes in polysaccharide biochemistry of the cell wall. It is known that proteins are upregulated during SAR however, previous findings have shown that pathogen response (PR) proteins are not significantly

upregulated fast enough to account for the observed changes in the cell wall. Hence semi-quantitative end point PCR is used to perform a rapid screen of a variety of genes known to be upregulated during SAR in *Arabidopsis*. We further attempt to correspond this to changes in cell wall extracted proteins purified by various chromatographic means to elucidate the differences in isoforms of the proteins. In addition we show initial data from HPLC studies of the hydrolysed cell wall sugars that will provide an insight into the sequence of changes in the cell wall sugar composition.

**271**

**THE HOMESCHOOLING FATHER**

**Eva Parrill • SOC • Lee Vigilant, advisor • CMU 216 9:30am**

Homeschooling families have a more "traditional" structure. In most, the mother stays home to teach the children, while the father works outside the home to provide for them. The mother in these families has had much research done on her. This is not so for homeschooling fathers. This presentation discusses a series of interviews with homeschooling fathers about their beliefs, attitudes, actions, and roles in their family.

**272**

**THE UNITED NATIONS AND SEXUAL ABUSE BY PEACEKEEPERS**

**William Rohla • POL • Andrew Conteh, advisor • CMU 216 9:50am**

UN Peacekeeping forces have become the universal symbol of maintaining peace and security across the globe. They play an irreplaceable role in protection citizens and civility in war torn nations. Yet, there is a much darker side to many of the United Nations peacekeeping missions. Blue Helmets have been involved with the sexual abuse, exploitation, trafficking, and even the spreading of HIV/AIDS among the populations they have sworn to protect. The aim of this paper is to try and explain why this problem has become so wide spread and what can be done about it. The UN needs to adhere to the peacekeeping Code of Conduct and work for stricter guidelines. Through better education, humanitarian training, further involvement of women, and greater accountability and oversight by the UN as well as UN forces home nations the UN may be able to remove one of the darkest clouds in its history.

**273**

**SHINTOISM'S INTERACTION WITH BUDDHISM IN JAPAN**

**Katie Lee • ANTH • Erik Gooding, advisor • CMU 9:30am**

The paper which I would like to present is one that looks at the interaction and cohabitation of the religion Shinto with the religion Buddhism. The benefit to looking at this relationship that has existed between the two religions within Japan will be to see how they interact and who is pulled toward these two as a combination. It will be focused on the historical track of these two religions being intertwined into daily practices within the culture and how each, but mainly Shintoism, is portrayed within cultural celebrations.

**274**

**FACTORS AFFECTING YOUTH CRIME RATES**

**Amy Kemp • ECON • Oscar Flores-Ibarra, advisor • CMU 218 9:50am**

This study attempts to uncover factors affecting crime rates, both violent and property. Prior studies consider living standards and parent-child relations as significant determinants of crime, while others consider public policy involving law enforcement as more accurate predictors. The conclusion of this study will determine the relevancy and accuracy of such theories.

**275**

**STUDY ON WEB CONTENT CONTROL AND REVIEW OF THE POLICY STAND REGARDING CONTENT FILTERING**

**Merennage Ravin Salgado • CSIS • Richard Walker, advisor • CMU 216 10:10am**

A study conducted to evaluate the possible steps that can be taken to filter web content, as well as exploring the policies that can be taken regarding content control in an educational institute. While it is crucial to protect the freedom of students that pay for these facilities to browse the web and use the IT facilities, there are certain standards and measurements that should be taken to ensure that the server system is well protected, and that the facilities provide are used responsibly by students. An internet based research revealed that there were cases when people willingly pressed a particular button to download a virus. A security firm named F-Secure ran a half-year advertising campaign on Google Ad Words which said "Is your computer PC virus-free? Get it infected here!" The result was 409 clicks a day. The threats are very real. How can these issues be addressed?

**276**

**RED RIVER VALLEY SCIENCE MUSEUM**

**Michael Ashby, Matthew Krebs, James Robert Olson • CM • Kenneth Bertolini, advisor • CMU 1:00pm**

We are designing, estimating and scheduling a commercial project of our choice. We decided to design a science museum which will be located here in Fargo.

**277**

**HARD ROCK CAFE**

**Daniel Johnson, Nolan Kriek, Daniel Oman • CM •**

**Kenneth Bertolini, advisor • CMU 2:30pm**

For our capstone class we were required to understand the demographics of a certain area. After understanding the demographics we were required to develop an idea of a business that would be profitable in that area. After getting our project approved, we estimated, scheduled, developed a LEED estimate that could be accepted by the owners, made a schedule of values, and many other concepts that deal with the building process. During the Student Academic Conference we will be able to explain the entire process in much more detail.

**278**

**F-M COMMUNITY CENTER**

**Ryan Doble, Brian Richter, Brett Vondal • CM •**

**Kenneth Bertolini, advisor • CMU 9:30am**

We are a group in the construction management program at MSUM and it is required in the Capstone class that we present our final projects at the student academic conference. Our project is a community center built in the Moorhead area.

**279**

**CM CAPSTONE PROJECT BLUE RIBBON CONSTRUCTION**

**Nathan Blaskowski, Wade DeVlieger, Shawn Louwagle • CM •**

**Kenneth Bertolini, advisor • CMU 1:00pm**

Our project is a CAPSTONE presentation. Blue Ribbon Construction is building a bar and grill in south Fargo ND.

**280**

**CM 496-CAPSTONE EXPERIENCE M.A.R. CONSTRUCTION TWELVE OAKS HOTEL AND RESORT**

**Michael Abel, Andy Larson, Robert Monley • CM •**

**Kenneth Bertolini, advisor • CMU 2:30pm**

M.A.R. Construction, founded by Michael Abel, Robert Monley, and Andy Larson, have developed a construction project proposal for the building of a hotel and resort on Maple Lake near Mentor, MN. It will feature standard hotel rooms and cabin style extended stay rooms. There will be a marina with recreational opportunities available.

**281**

**DNA FINGERPRINTING WITH ISSR-PCR**

**David Corwin, Jamie Holding Eagle, Amanda Koskela • BIOL • Linda Fuselier, advisor • CMU 9:30am**

Use of intersequence simple repeats (ISSR) to DNA fingerprint plants has increased substantially in the last few years. However, ISSR primers and PCR conditions must be optimized for each species and often cannot be repeated across laboratories. We screened ISSR primers for use as a DNA fingerprinting tool in bryophytes. Most important to successful amplification was DNA quality. We identified three primers that gave consistent results and were population-specific. The combination of three primers was sufficient to identify individual plants. We will continue this investigation with phylogenetic analyses of population genetic variation to examine relationships among populations of liverworts.

**283**

**CM 496 CAPSTONE EXPERIENCE-BREVJO CONSTRUCTION-NORTHTOWN COMPLEX**

**Brady Burdick, Everett Fjeld, Josiah Heppner • CM •**

**Kenneth Bertolini, advisor • CMU 1:00pm**

We have compiled a project under the company name "Brevjo Construction". Our project is a building called the Northtown Complex which is located in north Fargo.

**284**

**CM 496 CAPSTONE PROJECT CARREL BARREL RESTAURANT**

**Joseph Foertsch, Matthew Nelson • CM • Kenneth Bertolini, advisor • CMU 2:30pm**

The construction program's final class is to perform a project relating to the construction industry. The criteria is to find a project real or fake and perform all necessary tasks as though you were the general contractor of the project. In this case we made up a company, made up a company policy and safety plan, found a good project relating to the needs of the Fargo/Moorhead area, and performed all tasks associated with making the project become real. Idea of the class is to act as real contractors who are trying to get individuals to invest in the idea.

**285**

**PREMIER CONTRACTING L.L.C CAPSTONE PRESENTATION**

**Corey Haag, Jeremiah Haseleu, Aaron Knutson • CM •**

**Kenneth Bertolini, advisor • CMU 9:30am**

Capstone class groups pick a location and a project that could be profitable in the FM area. Our project is a two-story retail building which PayPal will be buying the second story to use as a call center. The bottom floor is divided into retail spacing to be rented out. With the design we also get to draw plans, derive and estimate and schedule the whole project.

**286**

**FASSBINDER AND SIRK: THE CINEMA OF OPPRESSION**

**Douglas Anderson • FILM • Anthony Adah, advisor •**

**CMU 218 10:10am**

A discussion of select films from the works of Rainer Werner Fassbinder and Douglas Sirk and how they relate to each other formally and thematically. The discussion of the formal relation focuses on a tendency toward artifice, and the discussion of the thematic relation focuses on how the oppression of society affects the individual, as well as, more specifically, how women are represented in these directors' films.

**287**

**THE PURSUIT OF ALTERED STATES OF CONSCIOUSNESS**

**THROUGH THE USE OF INDIGENOUS PSYCHOACTIVE DRUGS**

**Kirk Hanson • ANTH • Erik Gooding, advisor • CMU 1:00pm**

Groups of people have adapted to and incorporate aspects of their environment into all parts of their culture. The spiritual realm of culture is no exception to this. In my paper I will look at the pursuit to achieve altered states of consciousness through the use of psychoactive indigenous plant species. I will discuss cultures from both different time periods and geographic locations. Some of what I discuss will be: The evidence for use of hallucinogens among pre-contact cultures of Mesoamerica, peyote consumption by native cultures of North America, Iboga use in Sub-Saharan Africa, Fly-Ageing ingestion by Siberian shamans, Psilocybe mushroom cults of the Mazatec Indians of Mexico, and Ayahuasca rituals in South America. As well as descriptions of the topics previously mentioned I will also look for commonalities in experiences, rituals, and their meanings from these groups that come from different cultures and places.

**288**

**RELIGIOUS SYMBOLS**

**Emir Abaza • ANTH • Erik Gooding, advisor • CMU 2:30pm**

My research paper will be on religious symbols. It would not be focused over just one religion, I will talk about different religious symbols from a lot of different religions. I will talk about the meaning behind the symbols and if the meanings have changed, how they have changed, and why. I also plan on branching off and going into the ways symbols are incorporated into rituals and everyday lives. I also plan on talking about the cultural impact these symbols have. We just got done talking about this in class and I found it interesting. I will also talk about how different cultures view the symbols in different ways. For example, the different meanings of the swastika. For one group of people it represents the Nazis and everything that is bad, but for another group of people it has a strong religious meaning.

**289**

**SOVEREIGNTY: HURDLE TO INTERNATIONAL PEACE AND SECURITY**

**Noah Nelson • POL • Andrew Conte, advisor • CMU 216 2:00pm**

The goal of this presentation is to examine the notion of Sovereignty in the 21st Century. It will discuss various problems and constraints that an increasingly interdependent international systems has on a state's sovereignty and the problems that arise from these constraints. While discussing a state's sovereignty, this presentation will propose possible

solutions to current international problems such as the current economic crisis and the nuclear dilemma. This presentation is based on library research of scholarly works.

**290**

**THE SOCIOLOGICAL EXPLANATION OF PHOTOGRAPHY**

**Amber Brockopp • SOC • Karen Branden, advisor • CMU 9:30am**

My presentation for the 2009 Academic Conference will analyze photographs and how they would be examined sociologically. I will show nine photographs and I will explain how they would be represented in a sociological theme. I will explain their importance to sociology today, their importance to sociology today, their importance to photography, and history. This will show others how a photograph can be interpreted differently, depending on who analyzes it.

**291**

**HIP HOP AESTHETICS**

**Diane Miller • MUS • Laurie Blunsom, advisor • CMU 204 3:02pm**

If you hear music blaring out of a car driving down the street, it most always is hip hop. Why not rock or pop? In a college or high school party, you typically would not be stigmatized for playing rap music. Why is rap better party music than rock or country? At the same time, hip hop is not the type of music we hear in the grocery store. There is something that makes my generation feel "cool" about listening to rap music. Hip hop has an aesthetic like no other kind of music in a way that allows reconceptualizing musical boundaries. I would like to look in depth into the features of hip hop that give it its appeal, first looking at what hip hop music is. Hip hop is not music of singers or instrumental players. Then I will go in more depth by discussing how it is crafted and how it is approached. One can look at what are the types of sounds being produced and how they are creatively collaborated together. One can also break down the lyrics and look at its poetic aspects. Rapping is about rhyming, yet what goes in between is something else. I would also like to discuss how hip hop has been affected by American culture and why it is so important to popular society. There can be quite a comparison from mainstream rap to lyrical or independent raps. We can distinguish what makes quality rap music to what sells and why. As time has evolved so has the style of hip hop. A lot of it has to do with the social aspects of our society. We will look at what are the new trends developed and what are some of the old trends that are still around. Also, what are some of the trends that have not lasted.

**292**

**EROTISM & SEXUALITY IN THE FILMS OF NICOLAS ROEG**

**Michael Kinkle • FILM • Anthony Adah, advisor • CMU 216 2:30pm**

A discussion of the expressive sexuality found throughout British director Nicolas Roeg's oeuvre via theatrics, landscapes and motifs.

**294**

**LITERACY INSTRUCTION IN EARLY CHILDHOOD SPECIAL EDUCATION: IMPLICATIONS FOR STUDENTS WHO USE AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (AAC)**

**Heldi Fiskness • SLP • Marle Swanson, advisor • CMU 1:00pm**

The purpose of this study was to observe the instructional methods being used by educators in Early Childhood Special Education (ECSE) to facilitate the development of literacy skills in students who use augmentative and alternative communication (AAC). Data was collected through in-depth interviews with ECSE educators. Interviews helped gather information about the components of literacy instructions in ECSE classrooms, the reading activities and materials used, access to these activities and materials, and the frequency of opportunities students have to engage in these activities. The results of this study will be discussed in terms of literacy instruction for children who use augmentative and alternative communication in the ECSE setting.

**296**

**CLOSTRIDIUM DIFFICILE**

**Chelsea Lenarz • BIOL • Kathryn Wise, advisor • CMU 216 2:50pm**

Clostridium difficile-associated disease is an increasing infection in people taking antibiotics. It is caused by the bacteria Clostridium difficile. There have been recent outbreaks of a highly virulent strain with a high recurrence rate. It can affect many people.

**297**

**THROUGH A LOOKING GLASS DARKLY: FILMED NIGHTMARES OF THE AMERICAN UNCONSCIOUS**

**Luke Holmaas • FILM • Anthony Adah, advisor • CMU 205 2:00pm**

Films can be windows into the fears and anxieties of a nation. I will illustrate how two films, the 1974 film The Parallax View and the 2005

film War of the Worlds, can best be read and understood as akin to nightmares of an American collective unconscious. I will show how both employ dream logic and referents to real world events to paint a picture of the spirit of the nation in the dark times in which each film was made. Reference will be made to those real world events and how they are seen, directly or obliquely, in the film, and how the films intensify these events to create nightmarish vision of the world their characters find themselves in.

**298**

**PRIMER OPTIMIZATION AND USE OF RAPD MARKERS TO IDENTIFY PLANT POPULATIONS**

**David Corwin, Timothy Mullen, Jessica Thompson • BIOL • Linda Fuseller, advisor • CMU 2:30pm**

Numerous molecular techniques are used successfully to DNA fingerprint individual plants and study population genetic variation. Each technique has its advantages and disadvantages. We used Randomly Amplified Polymorphic DNA (RAPD) markers to search for population-specific genetic markers in a thallose liverwort. We screened eight primers for those with potential to work as population markers and optimized PCR conditions for select primers. Primer optimization involved changes in PCR profile and concentrations of reaction components. We found three primers that produced consistent banding patterns, although most genotypes were unique for each individual. We identified one primer with potential as a population marker. Further investigations will use this population-specific marker to understand gene flow among populations.

**300**

**BIOTERRORISM AND BIOSECURITY**

**Jody Granberg • BIOL • Kathryn Wise, advisor • CMU 207 2:00pm**

The bioterrorist anthrax attacks of 2001 generated a large amount of fear in people all over the country. It also generated a need for understanding the aspects of bioterrorism and how to prepare for a future attack. In order to prepare for a possible attack an understanding of how a bioterrorist agent is dispersed, what kind of agent, and how many people will become infected is very important. This presentation will discuss these issues and career opportunities in this field.

**301**

**THE TWO GREAT CONQUISTADORS OF THE AMERICAS.**

**Daniel Johnston • HIST • Nathan Clarke, advisor • CMU 203 10:30am**

When an individual thinks of the conquering of the new world one of the first people that typically comes to mind is Cortes and his assault on Mexico. But there was an additional figure that was no less important than Cortes. His name was Juan Ponce De Leon. He was a very intriguing individual who was a main benefactor to the myth of the fountain of youth, in addition to being one of the main explorers of Florida. And although he had a smaller armed force than Cortes he was driven in much the same fashion as Cortes and had essentially the same goals of wealth, land, and prestige. This presentation will elaborate on these two men and their backgrounds in addition to their lust for gold in the new world circa 1518.

**302**

**THE RELATIONSHIP BETWEEN THE MORALITY OF TEENS ENGAGING IN SEX AND PROVIDING BIRTH CONTROL ACCESS, IN RELATION TO AGE**

**Amanda Nelson • SOC • Susan Humphers-Ginther, advisor • CMU 9:30am**

Adolescents engaging in sexual activities is an important topic but very controversial. Research has shown that sex education impacts adolescent sexual behavior outcomes, such as becoming pregnant, contracting an STD, and so forth. Many people have highly negative views on such topic, thus possibly affecting the way sex education is conducted. The current study will use the General Social Survey (GSS) to examine the relationship between peoples' attitudes towards the morality of teens engaging in sex and the opinions on teens having access to birth control. In addition, this will be compared with the respondents' age (ranging from 18 to 89). It is hypothesized that the two variables will be highly correlated and that as respondents' age increases their views will prove to be more negative toward adolescent sexual behavior. The resulting data will create a clearer idea of the relationships between these variables, as well as how this might affect ideas of sex education.

### **303**

#### **ATTAINABILITY OF SEMANTIC KNOWLEDGE IN DIGITAL COMPUTERS**

**Andrew Weiss • PHIL • Chang-Seong Hong, advisor •**

**CMU 218 10:30am**

John Searle posits that computers cannot have semantic knowledge even though a computer can have great syntactical ability. Searle argues that syntax alone can never give rise to semantics and that the structure of digital computers only allows for syntax while the brain has the ability for semantic content. The arguments that Searle utilizes focus on the defining terms and the famous Chinese room argument. The clever agreements of Searle fall short of completely convincing as the roots of semantics must be somehow related to syntax, a view that will be further developed later in the essay. Before the refutation of Searle, an explanation of his views and other objections must first be completed. To begin explaining Searle's argument, an examination of what he thinks computers do must first be established. The first premise is that computers use formal, syntactical, programs that utilize meaningless symbols to prompt commands or other functions. That is, within binary code the fact that zeros and ones are being used bears no meaning on the eventual outcome of the program. The system would be just as able to accomplish its task if the letters A and B replaced the zeros and ones. Searle mentions that some people define intelligence as physical symbol manipulation without any connection to biological or physical wetware or hardware but these views are dismissed by Searle as they do not fit within the constraints of his definition of what a digital computer actually is. More clearly, the digital computer is a system that formally uses abstract symbols in order to accomplish or execute a function. By this definition alone it seems obvious that semantic content could never be achieved by such an entity. While running a program the computer does not know if it is doing theoretical physics or writing a haiku.

### **305**

#### **IDENTIFYING AN EARLIER OCCUPATION AT THE BIESTERFELDT SITE (32RM1), AN 18TH CENTURY CHEYENNE EARTH LODGE VILLAGE LOCATED IN SOUTHEASTERN NORTH DAKOTA**

**Nicole Reisdorf • ANTH • George Holley, advisor • CMU 216 3:10pm**

The Biesterfeldt site is an 18th century earth lodge village, surrounded by a ditch, located in southeastern North Dakota. In the summer of 2008 an MSUM archaeological field school conducted test excavations at the site. A number of these excavations units were placed outside the ditch, and one of these yielded artifacts from a possible earlier occupation. In the fall 2008 semester I conducted an analysis of the ceramics found during the field school excavations. This semester I will determine if the ceramics found inside the ditch and outside the ditch are significantly different enough to define at least two different occupations at the Biesterfeldt site.

### **307**

#### **THE RELATIONSHIP AMONG INCOME, DEGREE, AND HEALTH STATUS.**

**Ruqiyah Hassan, Hyunjin Hwang • SOC •**

**Susan Humphers-Ginther, advisor • CMU 1:00pm**

Our topic of the presentation is about the relationship among income, degree, and health status. Inequality of income and degree contribute to poor health. As a result, people with lower income and degree are less healthy than others who have higher income and degree. We used a set of programs for the documentation and Web-based analysis of survey data (SDA) at University of California, Berkeley and some articles about income, degree, and health. Pursuant to our research, the effects of the lower income and degree contribute to morbidity and mortality around the world especially, the developing countries. According to the government's report, opportunity for all: Tackling Poverty and Social Exclusion (Department of Social Security, 1999), identified poor health as the major problem associated with low income which is related to degree and health status. In addition, our purpose for this research is to examine and to demonstrate the income, degree, and health status related to each other which can be a triangle relationship. Sources benzeval,M., taylor & Judge, k. (2000). Evidence on the relationship between Low income and Poor Health: Is the Government Doing Enough? Fiscal Studies vol.21, 375-399. Ecob, R., & Smith, G. D. (1999). Income and health: what is the nature of the relationship? Social Science & Medicine 48, 693-705. Jones, A.M., & Wildman, J. (2005). Disentangling the relationship between health and income. HEDG Working Paper, 1.

### **308**

#### **SEQUENCE STRATIGRAPHY AND CONODONT PALEOECOLOGY OF THE LOWER DUPEROW FORMATION (UPPER DEVONIAN) IN WESTERN NORTH DAKOTA**

**Michael McAllister, Patrick Schuette • GEOS • Karl Leonard, advisor • CMU 2:30pm**

Very little work has been done on the classic Devonian Duperow Cycles from the Williston Basin in last 20 years. This study will examine the Duperow Formation (from the subsurface of western North Dakota) to get more information on the environmental and climatic conditions of this part of North America approximately 350 million years ago. This is an important time for this area of North America because it was tropical and covered periodically by a shallow sea. The area of study in western North Dakota had deeper seas and therefore has the best sediment record of this time period. The transgression and regression of the sea can be read through the rock record, by analyzing well logs and core samples. These cores have been studied by visiting the Wilson M. Laird Core and Sample Library. It is important to understand the transgression and regressions because transgressions in the rock tell us that global climate was warming. This goes the same for regressions showing that sea level fell and climate was cooling. After examining many cores and well logs from relative close locations, we are correlating this data over a wide spread area so we can plot the major and minor transgressions and regressions of the ocean that resulted in the deposition of the Duperow. All of this research is important because understanding the past is the key to understanding what is happening today and in the future with climate change. Another important factor of this formation is that the oil that is being drilled in North Dakota comes from this time period. Knowing the stratigraphy is key in the economics of North Dakota as well. The stratigraphic study will provide a temporal and spatial framework for paleontological studies. This further study is also important because it is more concrete data of the climate change of the time. It will be accomplished by studying and analyzing conodonts from core samples.

### **309**

#### **"ABANDONED FARMHOUSES OF POLK COUNTY: A STUDY"**

**Katherine Ledln • GEOS • Paul Sando, advisor • CMU 9:30am**

The project involves documenting the current status of abandoned farmhouses in East Polk County, MN. It came out of an idea from the student last summer who had decided to see what was left of the rural landscape of the area from 100 years ago. She has decided to adapt it for the Geography of Minnesota and North Dakota class to incorporate some oral history stories, and provide a pictorial view of this landscape.

### **310**

#### **A CUP WITH THE TEA MASTERS: A HISTORICAL LOOK AT JAPANESE POTTERY AND HOW IT INFLUENCED AMERICAN CERAMICS TODAY.**

**Claudia Chenard • JAPN • Chizuko Shastri, advisor • CMU 1:00pm**

Abstract for Student Academic Conference Claudia Chenard Title: A Cup with the Tea Masters: A historical look at Japanese pottery and how it influenced American ceramics today. Intro: From one world to another (historically speaking), this topic shouldn't be used in comparing the sides of ceramics between east and west but, instead the audience should leave with more educated roots on the subject. Japan is a founding father for most of glazes and some clay types used even now. It's far to say without Japan there would be great deal of ceramics that might not have existed. One should consider how elemental clay is alone. It comes from the Earth, needs water to thrive, wind to dry, and fire to complete the work of art! Finding the elements relevant to everything and everybody in life. 1) How ceramics and glazes came about in Japan. • Earliest founding's of clay pot and tools • Purposes for ceramic uses in Japanese history • Tea Masters: Who the are, and the role a Tea Master takes on 2) Why Japan? 3) What's the difference on general artists goals for making ceramics in both countries • American contemporary ceramics has the flexibility • Abstract vs. Traditional • American mentality, Japanese mentality • Old world vs. New World 4) Glazes and Clay bodies that will be displayed at the conference: • Bizen • Celadon • Hagi • Iga • Karatsu • Kohiki • Kyo-Yaki • Mino • Mishima/Yakishime • Mumyoji/Tokoname • Ohi-Yaki/Tenmoku • Pocelain • Raku-Yaki/Tamba • Seto/ Shigaraki I have a big poster for my presentation, along with many pieces of pottery to represent both sides.

### **312**

#### **GAMMA RAY BURST AFTERGLOW IMAGING**

**Devin Kasper • AST • Matthew Craig, advisor • CMU 9:30am**

The explosions that cause Gamma Ray Bursts (GRBs) are some of the biggest the universe has ever seen. The mass of the stars involved

cause two jets of gamma rays to be sent across the universe. Each day the Earth gets in the way of these jets of high-energy photons. By using a system of satellites that orbit the Earth, astronomers are able to get coordinates for the explosions that caused the GRBs. Then, astronomers can look at the spot where the GRB came from and see the afterglow from the dying star. By studying these afterglows, astronomers can better understand what caused them.

### 313

#### STAY FIT FITNESS CENTER

**Kelly Janke, Andrew Quittschreiber • CM • Kenneth Bertolini, advisor • CMU 9:30am**

Big Rock Construction is providing a poster presentation of our conceptual project for the Construction Management Senior Capstone Class. Our project is a new fitness center located in Southwest Fargo. The poster will include the estimate, schedule, company information, as well as other project information.

### 315

#### REINTERPRETATION OF OBSERVED EFFECTS OF CO ON CRYSTALLIZATION IN SILICATE MELTS AT 1-ATMOSPHERE PRESSURE

**Anthony Larson • GEOS • Russell Colson, advisor • CMU 2:30pm**

Last year we reported an unexpected influence of CO on crystallization of olivine in some silicate melts, interpreting an apparent increase in the liquidus temperature of one hundred degrees Celsius. New experiments show that at least some of the effect of CO is to cause a re-producible increase in quench crystal growth rather than a change in liquidus temperature. CO may affect melt fluidity (allowing greater quench growth rate), durability of nuclei at higher temperatures, or it may enhance the effectiveness of platinum wire as a nucleation site. While this is more easily understood than a 100°C change in the liquidus temperature, it still suggests an unexpected effect of CO on silicate melts at 1-atmosphere pressure, and the possibility that CO is soluble in silicate melts even at low pressure (at least in some compositions). If CO at 1-atm affects the behavior of silicate melts, this is potentially important in lunar magmatic systems and is an observation worth pursuing further.

### 316

#### DEMONSTRATING AND EXPLORING THE THREE GEOGRAPHIC INFORMATION SYSTEMS VIEWS

**Marvin Anderson, Danielle Henning, Kristin Zaun • MGMT • Ashish Gupta, advisor • CMU 216 3:30pm**

Geographic Information Systems (GIS) integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information. We will be demonstrating and exploring the three different views of GIS: the database view, the model view, and the map view.

### 317

#### STRATEGIC MARKETING ASSESSMENT FOR PRODUCT ENTRY INTO SOUTH AFRICA

**Anne Kaese • MKTG • Ruth Lumb, advisor • CMU 208 1:40pm**

This presentation provides an overview of the scope and challenge of international marketing and the assessment of global market opportunities. Using South Africa as the target country, the importance of assessing a country's cultural, legal, political, and economic environments before entry into the country are discussed. Challenges and opportunities for developing a marketing strategy and implementing the marketing strategy in South Africa are presented.

### 318

#### CRIME IN THE USA: A PANEL ANALYSIS

**Derick Hermanson • ECON • Oscar Flores-Ibarra, advisor • CMU 208 2:00pm**

This study looks at the significant drop in crime rates in the United States during the 1990's and attempts to find an explanation. An economic regression model is constructed to determine the factors that influence crime rates. Data from all 50 states ranging from 1988-2003 is used in the panel analysis.

### 319

#### SPATIAL TRENDS IN CONODONT DISTRIBUTION PATTERNS AND TAPHONOMY IN KEY STRATIGRAPHIC SURFACES AND HORIZONS THAT DELINEATE GENETIC UNITS WITHIN THE IOLA LIMESTONE: UPPER PENNSYLVANIAN OF KANSAS AND IOWA

**Lauren Ferragut, Kelsie Meyer, Jeffrey Miller, Adam Rigge • GEOS • Karl Leonard, advisor • CMU 9:30am**

Temporal trends in the distribution of conodonts and facies stacking patterns have long been used to illustrate the transgressive and regressive nature of Upper Pennsylvanian strata that comprise a Kansas Cyclothem. Sequence stratigraphic studies of these rocks have demonstrated complexities not recognized in the cyclothem model, especially by examining spatial trends revealed by correlation of key stratigraphic surfaces. This investigation examines the temporal and spatial trends in the taphonomy and distribution of conodonts within a sequence stratigraphic framework interpreted for sections of the Iola Limestone (Upper Pennsylvanian) of eastern Kansas and central Iowa. Three additional sections have been sampled in eastern Kansas, and results will be compared with three previously sampled sections.

Temporal trends in conodont distribution were examined in samples from correlative sections of the Iola sequence in Kansas and Iowa. An increase in conodont elements/kg characterize the interval directly above all bounding surface types within the Iola. Conodont elements/kg values are much higher, however, in the intervals above the maximum flooding surface or horizon and directly above the sequence boundary, than parasequence boundaries. Generic diversity tends to increase above flooding surfaces, but drop abruptly above sequence boundaries. A change in taxonomic composition of samples above bounding surfaces also distinguishes sequence boundaries and maximum flooding surfaces or horizons from parasequence boundaries. Spatial trends in conodont distribution and taphonomy were examined in samples above flooding surfaces and unconformities in the Iola. Multivariate statistical analyses of conodont distribution suggest a correlation between sample composition and the relative location of the surface within the basin (updip versus downdip). Spatial trends in taphonomy, particularly fragmentation and bias towards robust elements, help to characterize compound stratigraphic surfaces in updip areas within the basin. Trends in the distribution and taphonomy of conodonts can be used as a tool to assist bounding surface identification (distinguishing between flooding surfaces and sequence boundaries) and to aid in characterization of basinal trends of key surfaces and horizons within marine Paleozoic sequences.

### 320

#### CHINA BUSINESS TRIP

**Robb Conroy, Emma Dilling, Kacie Grube, Tracie Kennedy, Kolby Kontz, Alex Kotchian, Tina Krueger, Lindsey Livingston, Billy Longmire, Ryan Naab, Isaac Thomas, Sarah Wateland, Peter Wiederholt, Jason Wisniewski • BUS • Ruth Lumb, advisor • CMU 9:30am**

On the upcoming 2009 China Business Trip we plan to gain knowledge on the Chinese culture and have an experience that will last a lifetime! We expect to travel to some major cities including: Hong Kong, Chongqing, Chengdu, Guilin, Yangshou, Xi'an, Beijing, and Shanghai. Some of the highlights of the trip include excursions to the harbors and financial markets of Hong Kong and Shanghai, the Great Wall, Tiananmen Square, the forbidden City, the Terra Cotta Soldiers, Panda Breeding & Research Center, and biking through the countryside. We will also be visiting Chinese firms and foreign firms conducting business in China. By visiting different locations throughout China we hope to experience similarities and differences between the international aspects of China and the business practices we conduct here at MSUM. Overall, we hope to enhance our knowledge of the Chinese culture so we are able to use what we have learned to further ourselves in the business world.

### 321

#### THE ROLE & STATUS OF WOMEN ACROSS THE GLOBE: CHINA, SOUTH AFRICA, UGANDA, & NEPAL

**Sara Elzen, Lindsay Lessard, Amanda Peper, Daniel Watkins • WS • Heather Nesemeyer, advisor • CMU 205 10:15am**

This project offers a women's studies analysis and discussion of the current status of women in China, South Africa, Uganda, and Nepal. The women's studies mode of inquiry involves multi-level analysis of several factors that encompass the past, present, and future roles of women and social change in these countries locally as well as globally. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered roles, values, and status, this project offers an overview of women's position within these societies and within the global community.

## **322**

### **DON'T HOLD THEM BACK**

**Andrew Boman • ED • Steven Grineski, advisor • CMU 218 1:00pm**  
**"Don't Hold Them Back"** is a presentation inspired by the first major advocates for educational reform in the United States: Thomas Jefferson, Benjamin Franklin, Horace Mann, and Prudence Crandall. Each had their own way of doing it, with many similarities and differences, but all for a common goal. That goal and their beliefs on education will be explained during this presentation. An original poem composed by myself will help in the explanation and examination of each person and their influence on education in America.

## **323**

### **CYBERWAR/CYBER SECURITY-HOW TECHNOLOGY CAN BE USED TO COUNTER TERRORISM.**

**Abdilqadar Sharif • MGMT • Ashish Gupta, advisor • CMU 208 2:30pm**

This study delves into the concept of cyperwar and cybersecurity and describes various associated threats. We explore and evaluate various counter measures that government agencies and organizations are taking to prevent such threats from happening. Finally, we explain how technology can be used to defeat those who are expose danger to the society.

## **324**

### **"DIGITIZING PATIENT HEALTH RECORDS- PROS AND CONS"**

**Zachary Howe, Zachary Lukes, Kyle Sauvageau • MGMT • Ashish Gupta, advisor • CMU 1:00pm**

With the stroke of a pen President Obama signed the Recovery and Reinvestment Act of 2008. Inside the 1100 page bill there lies an appropriation to improve the availability of health information and the provision of health care by encouraging the creation, use, and maintenance of lifetime electronic health records of individuals in independent health record trusts and by providing a secure and privacy-protected framework in which such records are made available only by the affirmative consent of such individuals and are used to build a nationwide health information technology infrastructure. Should there be any concerns regarding this? What about security and confidentiality? Our project will delve into the pros and cons that may be associated with transferring the nation's myriad of health records into a fast traveling, easy to use digital format. Library of Congress. <http://www.loc.gov> (accessed February 17, 2009)

## **325**

### **A WHITE TEACHER TALKS ABOUT RACE**

**Kirby Black, Laura Kohtala, Stephanie Nelson, Amber Niehoff • ED • Steven Grineski, advisor • CMU 208 1:00pm**

A White Teacher Talks About Race, by Julie Landsman was a very inspirational book for us as future teachers. If the title of the book isn't a strong enough statement, what's found between the covers is jaw dropping. After reading and discussing all of the situations Julie illustrated through her book, our views on teaching have changed dramatically. We have learned different strategies of teaching students with different backgrounds after emailing Julie questions about her life experiences. Through Julie's inspirational book, which takes place in the twin cities, we were able to compare teaching environments from rural and inner city schools.

## **326**

### **THE BUSHIDO**

**Samuel Brackin • JAPN • Chizuko Shastri, advisor • CMU 9:30am**

Translated int the "Way of the Warrior", the Bushido was a philosophy that played a large role through its main agents the Samurai. Development of the Bushido dates back to the ninth century and continued to exist and play a role up until the nineteenth century. Born from the ideals of both Confucianism and Buddhism, the Samurai code of conduct gave birth to other disciplines that are famous, even in today's culture, such as: Iaido, Kendo, Aikido, Jujitsu, and Judo. Throughout history few cultures have been capable of matching the mastery of oneself that the Bushido had cultivated from its warriors. Mainly its only real philosophical competitor would be the views taught to spartan warriors.

## **327**

### **ECOTOPIA IN THE SHIRE: VISIONS FOR A FUTURE SUSTAINABLE SOCIETY**

**Breanne Anderson, Adam Bryn, Justin Carlson, Michael Moran, Kasey Schlosser • BIOL • Alison Wallace, advisor • CMU 1:00pm**

Creating and maintaining ecologically sustainable societies in the face of growing human population, increasing use of natural resources, and a changing climate is humanity's greatest challenge. Students from the "Ecological Perspectives" course researched numerous technological, political, and sociological possibilities that will hopefully address local and global sustainability challenges. This group will present their vision for such a society located in New Zealand in the year 2039.

## **328**

### **EUROPEAN ECOTOPIA: VISIONS FOR A FUTURE SUSTAINABLE SOCIETY**

**Robert Holloway, Stephanie Langer, Karen Vellenga • BIOL • Alison Wallace, advisor • CMU 2:30pm**

Creating and maintaining ecologically sustainable societies in the face of growing human population, Increasing use of natural resources, and a changing climate is humanity's greatest challenge. Students from the "Ecological Perspectives" course researched numerous technological, political, and sociological possibilities that will hopefully address local and global sustainability challenges. This group will present their vision for such a society located in England in the year 2039.

## **329**

### **AUSTRALIAN ECOTOPIA: VISIONS FOR A FUTURE SUSTAINABLE SOCIETY**

**Jannel Barnes, Jessica Hollis, Jennifer Laney, Carlissa Storseth • BIOL • Alison Wallace, advisor • CMU 9:30am**

Creating and maintaining ecologically sustainable societies in the face of growing human population, increasing use of natural resources, and a changing climate is humanity's greatest challenge. Students from the "Ecological Perspectives" course researched numerous technological, political, and sociological possibilities that will hopefully address local and global sustainability challenges. This group will present their vision for such a society located in Australia in the year 2039.

## **330**

### **CARIBBEAN ECOTOPIA: VISIONS FOR A FUTURE SUSTAINABLE SOCIETY**

**James Fay, Samantha Flick, David Hertel, Scott Olson, Cory Ystenes • BIOL • Alison Wallace, advisor • CMU 1:00pm**

Creating and maintaining ecologically sustainable societies in the face of growing human population, increasing use of natural resources, and a changing climate is humanity's greatest challenge. Students from the "Ecological Perspectives" course researched numerous technological, political, and sociological possibilities that will hopefully address local and global sustainability challenges. This group will present their vision for such a society located in Cuba in the year 2039.

## **331**

### **MIDWESTERN ECOTOPIA: VISIONS FOR A FUTURE SUSTAINABLE SOCIETY**

**Kalle Beukelman, Amanda Brandsrud, John Meyer, Megan Schumacher • BIOL • Alison Wallace, advisor • CMU 2:30pm**

Creating and maintaining ecologically sustainable societies in the face of growing human population, increasing use of natural resources, and a changing climate is humanity's greatest challenge. Students from the "Ecological Perspectives" course researched numerous technological, political, and sociological possibilities that will hopefully address local and global sustainability challenges. This group will present their vision for such a society located in the American Midwest in the year 2039.

## **332**

### **MIDDLE EASTERN ECOTOPIA: VISIONS FOR A FUTURE SUSTAINABLE SOCIETY**

**Emily Hayes, Renek Jorgenson, Derek Meyer, Adam Saulsbury, Jacob Vossler • BIOL • Alison Wallace, advisor • CMU 208 2:50pm**

Creating and maintaining ecologically sustainable societies in the face of growing human population, increasing use of natural resources, and a changing climate is humanity's greatest challenge. Students from the "Ecological Perspectives" course researched numerous technological, political, and sociological possibilities that will hopefully address local and global sustainability challenges. This group will present their vision for such a society located in Egypt in the year 2039.

### **333**

#### **SAMURAI WARRIORS**

**Ahamed Abdul Cader • JAPN • Chizuko Shastri, advisor •**

**CMU 9:30am**

Title: Samurai Warriors I will be doing a power point presentation at the student academic conference. In my presentation I will be talking about who the samurai warriors were and during which period became known. I will give them some information about the type of armor they wore during battle and display some pictures. Moreover, I wish to talk about a battle that was fought during the samurai time period and introduce and give some details of a famous samurai. Towards the end of my presentation I will talk a bit about their culture. To be more specific I would probably talk about the type food they ate and clothes they wore. The aspects mentioned above will be my presentation.

### **334**

#### **THE EFFECTS OF THE BOMB THAT WAS DROPPED IN HIROSHIMA AND NAGASAKI BY UNITED STATES OF AMERICA.**

**Omar Abdi • JAPN • Chizuko Shastri, advisor • CMU 1:00pm**

Title of report: The first place ever to suffer nuclear warfare in the whole world. Author's name: Omar Abdi Affiliation (organization): Japanese Class Date: 03/13/2009 The bombing that occurred August, 1945 in Hiroshima is vividly remembered in the minds of those who suffered. But the people that suffered the day of the bombing would not be the last people that would suffer the nuclear weapon. Furthermore, the bomb affected the land and the economy of Japan and the people that lived there after the bombing. After the bombing, thousands more have died from injuries or illness that attributed with radiation released by the bombs. Farmers in that area cannot plant anything now because there are deadly chemicals in the soil that could make anything grown there toxic. There have been also serious diseases that were caused by the outcome of the bomb. Such diseases are keloids, cancer, genetic mutation, and leukemia. Finally, the question is, how can we prevent such things to occur in the future? (List of key terms) Hiroshima, Nagasaki, Nuclear bombing, radiation in Japan

### **335**

#### **NOT JUST CARTOONS: JAPANESE CULTURE INHERENT WITHIN ANIME AND MANGA**

**Nikkole Martin • JAPN • Chizuko Shastri, advisor • CMU 2:30pm**

A look at how Japan's culture influences and permeates the Japanese entertainment mediums of anime and manga.

### **336**

#### **THE EVOLUTION OF GREEN ALGA INTO TERRESTRIAL LAND PLANTS**

**Joshua Carlson • BIOL • Linda Fuseller, advisor • CMU 205 9:30am**

Terrestrial land plants have evolved from plants in the sea. Green Alga is the ancestral plant that has escaped the aquatic lifestyle and has moved onto land. Evolution through natural selection has allowed terrestrial plants to develop a vascular system and a new way to reproduce sexually. As the plants adapted, new species began to take over individual topographic locations. Three different biomes have been established in Minnesota, and through natural selection the boundaries remain constant.

### **337**

#### **JUST WAR THEORY AND THE NEED FOR TRUTH AND RECONCILIATION.**

**Adam Hasbargen • PHIL • Theodore Gracyk, advisor •**

**CMU 218 1:20pm**

The Bush Administration's justification for the 2003 war in Iraq is critically and philosophically analyzed in this presentation. It is done so utilizing their own reasons, Just War theory, and the evidence that has surfaced in regards to the war. The reality of poor reasoning and false evidence becomes apparent and when it is compounded with the other actions taken by the US Government (Guantanamo bay, secret prisons, Patriot Act), it is clear that a Truth and Reconciliation commission is necessary to fully investigate the transgressions of the United States and begin a healing process that may bring back the respect and trust of the international community.

### **338**

#### **DEAD AND KICKING: THE FILM HERO'S ADVENTURE TO IMMORTALITY**

**Douglas Mattis • FILM • Anthony Adah, advisor • CMU 218 1:40pm**

A hero's life is full of challenges and strife. Possibly the greatest feat of the hero is not in their life but in their death. Joseph Campbell, author of The Power of Myth, writes about how a hero will struggle through their

journey, taking on every confrontation, until their face-to-face with the force that no man can avoid, death. However, if they are able to conquer death, the hero will have become stronger and immortal. Campbell's analysis is not only seen in myths and legends, but in modern entertainment. This presentation uses Campbell's, as well as other notable hero theories, and applies them to the characters and their epic battles in films.

### **339**

#### **THE STATUS OF WOMEN IN AFGHANISTAN**

**Pragya Devkota, Lindsey Livingston, Mingma Sherpa, Stella Situma • WS • Heather Ehrichs Angell, advisor • CMU 9:30am**

This project offers a women's studies analysis of the current status of women in Afghanistan. The women's studies mode of enquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### **340**

#### **THE STATUS OF WOMEN IN BANGLADESH**

**Katie Aukland, Kallyn Klein, Jill Marketon • WS •**

**Heather Ehrichs Angell, advisor • CMU 207 10:05am**

This project offers a women's studies analysis of the current status of women in Bangladesh. The women's studies mode of enquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### **341**

#### **THE STATUS OF WOMEN IN GHANA**

**Sara Aleem, Cynthia Marler, Ashley Willits • WS •**

**Heather Ehrichs Angell, advisor • CMU UG 10:15am**

This project offers a women's studies analysis of the current status of women in Ghana. The women's studies mode of enquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### **342**

#### **THE STATUS OF WOMEN IN TURKEY**

**Pratigya Devkota, Debra Hilar, Krista Michaelson • WS •**

**Heather Ehrichs Angell, advisor • CMU 1:00pm**

This project offers a women's studies analysis of the current status of women in Turkey. The women's studies mode of enquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### **343**

#### **THE STATUS OF WOMEN IN THE USA: NATIVE AMERICAN**

**Christian Castillo, Virginia Dettmann, Rachel Haag, Sharon Ranjiktar • WS • Heather Ehrichs Angell, advisor • CMU 2:30pm**

This project offers a women's studies analysis of the current status of Native American women in United States. The women's studies mode of enquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### **344**

#### **THE STATUS OF WOMEN IN THE USA: HISPANIC AMERICANS**

**Katherine Leither, Aubrey Vesledahl, Roshan Wagle • WS • Heather Ehrichs Angell, advisor • CMU 9:30am**

This project offers a women's studies analysis of the current status of Hispanic women in United States. The women's studies mode of enquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural,

religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### 345

#### THE ROLE & STATUS OF WOMEN ACROSS THE GLOBE:

#### AFGHANISTAN, PAKISTAN & SLOVAKIA

Mary Anderson, Jennifer Lundberg, Annika Nynas • WS • Heather Nesemeier, advisor • CMU 207 9:30am

This project offers a women's studies analysis of the current status of women in Pakistan, Afghanistan, and Slovakia. The women's studies mode of inquiry involves multi-level analysis of several factors that encompass the politics of identity. Through questioning the role of regional, cultural, religious, sociological, political, and economic influences in creating and maintaining gendered identities, this project offers an overview of women's position within that society and within the wider world community.

### 347

#### NURSING INTERVENTIONS FOR FALL PREVENTION

Calla Oftedahl • NURS • Donna Heald, advisor • CMU 1:00pm

Patient falls that occur in the health care setting, including clinics, long-term care, hospice, and hospitals, prove to be a prevalent issue among many facilities to date. One of the biggest concerns is that falls can result in severe injury or even patient death. According to Nursing Scopes and Standards of Practice written by the American Nurses Association (2004), nursing is defined as "the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individual, families, communities, and populations." Therefore, it is nurses' obligation to participate and implement fall prevention interventions. The student will educate the public on the many evidence-based practice interventions that a nurse can implement into his/her practice to help decrease the number of falls that occur; thus increasing the patient's quality and duration of life.

### 348

#### A MEDIA CRITICISM OF COMEDY CENTRAL'S SOUTH PARK AND THE GINGER KIDS

Vanessa Ibsen • CMST • Michelle Sytle, advisor • CMU 203 1:00pm

Humor can come in many forms, but sometimes it is at the expense of others. This is evident in many television shows, especially adult cartoons. In the adult cartoon South Park, four young boys tease each other. The children not only tease but they also racially discriminate their friends and fellow classmates. The television show uses discrimination as a form of humor, and the mass following viewers are inexplicably being trained to view discrimination as humorous. My media criticism of South Park discovers and explains how the popular cartoon uses discrimination as a form of humor, which indirectly trains viewers to characterize discrimination as humorous and acceptable.

### 349

#### A MEDIA CRITICISM OF THE NBC TELEVISION SHOW FRIDAY NIGHT LIGHTS

Andrew Baldwin • CMST • Michelle Sytle, advisor • CMU 203 1:15pm

The rhetorical criticism method used to analyze the television show Friday Night Lights is media criticism. The target audience for this Friday evening television show is people from the age 14 to 40, both men and women. It is also mainly directed for people in the middle and lower classes because I would not consider those that are in the upper class to really understand the issues because they may not see the show as something that they go through. Other audience members include people who are in school whether they are in high school or college and those who are finished with school and those that have dropped out. The co-cultures featured are African-Americans, Hispanic, and Caucasian, as well as teens and adults, young and old, who compete or competed in sports. The episode I chose to analyze is Episode 1 of Season 3 which aired October 1, 2008 and titled "I Knew You When." The purpose of this artifact is to show audience members who do not understand the importance of sports in some towns and to give an explanation of problems that happen even in the audience's lives in an entertaining way. The less obvious message of this show is to help show that no matter whom you are and where you are from everyone deals with similar problems and deal with them in different ways. This paper will go over my analysis of the show Friday Night Lights, my evaluation of the show, and my conclusion of what I have found while watching this program.

### 350

#### A MEDIA CRITICISM OF THE MOVIE CRASH

Megan Boie • CMST • Michelle Sytle, advisor • CMU 203 1:30pm

"It's the sense of touch. In any real city, you walk, you know? You brush past people, people bump into you. In L.A., nobody touches you. We're always behind this metal and glass. I think we miss that touch so much, that we crash into each other, just so we can feel something." This quote was spoken by Graham Waters, an African American detective in the Los Angeles Police Department in the dramatic film about social and racial tensions, Crash. The film Crash is set in Los Angeles and is inspired by a real life incident of the directors', Paul Higgins, in which his Porsche was carjacked outside a video store in 1991. The film displays several characters during a 36-hour period and brings them together through car collisions, shootings, and carjacking. Through these characters' interactions, the film shows racial tension and the distance between strangers in general. Lions Gate released this film in 2004 at the Toronto Film Festival, and it was released internationally in 2005. Crash was nominated for six awards in the 78th Academy Awards in 2005 and won three of them including the Best Picture Oscar. According to Box Office Mojo, it was released in 1,905 theatres worldwide, and it grossed \$9,107,071 in the opening weekend. The total lifetime revenue of this film is \$98,410,061. The main purposes of the rhetoric in this film are to entertain, as well as show the "complexities of racial tolerance in contemporary America." The film is convincing and persuasive because it shows many different characters with the same types of problems in their lives. It is important that we understand and analyze this artifact because it displays how life can truly be in America with all of the racial discrimination, carjacking, molestation, and much more. My research focuses on the different messages, characters, and stories within the artifact, how different people are portrayed in the film, and my evaluation.

### 351

#### A MEDIA CRITICISM OF THE NBC COMEDY TELEVISION HIT THE OFFICE

Elaine Burchill • CMST • Michelle Sytle, advisor • CMU 203 1:45pm

The Office started in 2005 on NBC. The sitcom is about a paper supply company called "Dunder Mifflin" which is located in Scranton, Pennsylvania. The show puts a humorous spin on the stereotypical boring day at the office by creating a workplace full of employees who comically label different members of society. For example; Meredith is the alcoholic, Dwight is the nerd, Michael is the politically incorrect boss, Jim and Pam are the attractive young adults, and Phyllis is the shy one. The show is very popular and received top viewership in the 2005-2007 year. In fact, according to The Chicago Tribune, it was the top-ranked show on NBC for 18-34 year-old male and females. It is currently broadcasting on NBC on Thursday nights and is in its fifth season. It is important that we analyze this rhetorical artifact for a number of reasons. First, because The Office is so popular, the message it portrays is reaching many different people in society. People are influenced by what they watch, so it is important that we understand the show's messages. In addition, there are many underlying implications in the show, and unless we consciously think about what the message is, we could unconsciously be influenced by its persuasion. It is important that we understand whether the significance of the show is negative or positive for society. I have found that the purpose of the rhetoric is to entertain its viewers by making fun of societal stereotypes. However, there is also an underlying message The Office portrays that can be looked at as either negative or positive. Throughout the show, characters act in ways that exaggerate actual discrimination that happens in the workplace, including discrimination against gay men, minorities, and women. By putting a comical spin on the injustices of society, The Office is bringing to light what is commonly not talked about in the workplace. This can be positive, by raising awareness of different types of discrimination; or negative, the humor on the show could be offensive to people who actually are discriminated against at work.

### 352

#### A FEMINIST AND MEDIA CRITICISM OF THE HBO HIT SERIES SEX AND THE CITY

Josephine Trnka • CMST • Michelle Sytle, advisor • CMU 203 2:00pm

I used two rhetorical criticism methods to analyze the hit HBO series Sex and the City, including feminist criticism and media criticism. The senders of the show are the HBO network, the creator of the show, Darren Star, and also the writers, producers and actors. The four main stars are Carrie (Sarah Jessica Parker), Samantha (Kim Cattrall), Miranda (Cynthia Nixon) and Charlotte (Kristin Davis). The target audience for this show is females between the ages of 18 to 45, especially those women who value independence as something important and that are in the middle to upper class in society. The use of

images, symbols, sound effects and music is used constantly throughout the show. The most prominent symbol used throughout the six seasons of the show is the city of New York. The city itself becomes a symbol of opportunity, independence, love, but also of frustration and limitation. It is important to understand and analyze this show because it has produced such a huge following in the United States, and it has shaped how Americans view women, how women view other women, and how men view women in the world. Sex and the City goes to great lengths to present women as independent, hard-working, and worthy of everything that men are entitled to, and that they should be set on equal planes. The less than obvious purpose of this series however, is to send the message that the ultimate happiness for women is to find their one perfect man, and to be rescued by him. My research indicates that Sex and the City transforms and perpetuates the typical gender stereotypes that are applied to women in American society, and in this paper that will be proven by first discussing what the gender stereotypes are by explaining feminism according to Wood and Borchers, then going over the analysis of the series' messages, evaluating the messages, and finally concluding what all this information means when examined as a whole.

### 353

#### LBJ AND THE BEGINNING OF THE AGE OF FEAR: A MEDIA CRITICISM

Justin Norris • CMST • Michelle Syltie, advisor • CMU 203 2:30pm

The artifact I will review for this analysis is a political advertisement entitled "Peace Little Girl." It is an advertisement that was created and paid for by the Johnson administration in its bid for reelection against Republican Senator Barry Goldwater in the 1964 general election. The ad was, and is so notorious that it was aired only three times during the 1964 election season. Out of the three times it was aired only one of them was as a paid television spot; the other two airings were as a result of coverage by nightly newscasts on two of the three networks. The intention of the ad was clear and was declared by both sides. However, the Republican National Committee's response is the most succinct, "This ad implies that Senator Goldwater is a reckless man and Lyndon Johnson is a careful man" (Museum of the Moving Image). This is an important message considering it comes from a sitting President of the United States of America. It is important to conduct an analysis of this artifact because it is the beginning of the use of television as a channel for control by fear. Furthermore, the "Peace Little Girl" ad also known as the "Daisy" ad is considered, "The most famous of all campaign commercials." The "Daisy" ad has this reputation because the tactics it employs marks the beginning of what has become common place in the modern political environment, and understanding its rhetoric gives insight into the world as it exists today.

### 354

#### AMERICA'S IGNORANCE TO FOREIGN CULTURE: A CULTURAL CRITICISM OF BORAT

Andrew McKenzie • CMST • Michelle Syltie, advisor •

CMU 203 2:45pm

In November 2006 20th Century Fox released the film Borat: Cultural Learnings of America for Make Benefit Glorious Nation of Kazakhstan. The film starred comedian Sacha Baron Cohen as a Kazakh reporter brought to America to learn American culture to help improve conditions in Kazakhstan. Kazakhstan is portrayed to be economically behind and not a fully developed country. This establishes constraints and sets up areas of struggle between the underdeveloped country and the fast growing American culture. The purpose behind the movie being filmed as a documentary gives the view that what is being said and seen is that of truth and is unscripted in nature. This allows the audience to view America's cultures naked and as they actually are; without political correctness, media cover-up, or opportunities to twist meanings. My interpretation for the artifact's purpose is that it was meant to expose American co-cultures ignorance to foreign cultures (cultures not relative to theirs). Evidence of such will be provided and the argument that America harbors several co-cultures that are ignorant to other cultures will be established. The importance behind analyzing and understanding the movie will help American cultures face the reality of their judgmental nature and hopefully bring around a better sense of openness and willingness to accept cultural differences. The conclusion of my research is that Borat can be effectively evaluated and established as an insult to American cultures more so than Kazakh culture.

### 355

#### DRAMATISM AND THE KOBE BRYANT RAPE CASE

Rex Larson • CMST • Michelle Syltie, advisor • CMU 203 3:00pm

In the summer of 2003, NBA basketball superstar, Kobe Bryant, was charged with rape allegations by a 19-year-old girl, a class-three felony that can carry a prison term of four years to life, and a probation period of 20 years to life. No NBA player has been charged with rape; however, many professional athletes are "rumored" to have extramarital relationships. The transcript of Kobe Bryant's press conference at the Staples Center in Los Angeles is the rhetorical artifact I used for my dramatism rhetorical criticism. He held his press conference on July 18, 2003 shortly after the incident. It is important for people to understand this artifact because it is Bryant's side of the story. The target audience he is trying to appeal to is everyone who loves basketball, and anyone or everyone who is interested in this alleged rape case. The obvious purpose of the rhetoric is for Kobe to convince people that he did not commit a crime. The less obvious may be that he is saying the accuser made this up because he is a celebrity, and she wants to get money out of him. Bryant persuaded the audience by saying, "I have committed a sin not a crime" in his press conference. He used rhetoric to state that he was "innocent" over 20 times, and admitted he was guilty of adultery and adultery only. My research found that Bryant used rhetoric effectively and persuasively. Using Kenneth Burke's pentad I will identify and explain the multiple components of this situation and relate it to Kobe Bryant's press conference. In this presentation I will give you the description of the dramatism method of rhetorical criticism, my analysis of Bryant's rhetoric, and my evaluation of the rhetoric used at the press conference.

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#### MOTLEY CRUE'S "RED, WHITE & CRUE"

Nicholas Earney • CMST • Michelle Syltie, advisor •

CMU 203 3:15pm

A Gender/Feminist Criticism For my Gender/Feminist Criticism I analyzed the cover of Motley Crue's "Red, White & Crue" album which was released on February 1, 2005 as well as the song lyrics. The album cover features an American flag as well as a fully nude female model. This female model is thin and blackened out in the photo with the American flag stripes painted over her. The lyrics are also analyzed to see if they perpetuate the message that the album cover is sending. The messages are clearly being sent on a visual "stimulating" level. There are underlying messages; however those will be addressed in my analysis. Since Americans are exposed to thousands and thousands of persuasive advertisements every year, this is most certainly a smart way to advertise this album. The images on the album cover speak much about the morals and messages that are trying to be portrayed by the senders. I find the most important message to focus on is the nude female. Because the female is nude, that sends the message that females are sex objects. On another note, the female is shadowed out on the album cover, which potentially sends the message that women shall be silenced in our culture. By adding the American flag as a background to the female image, it sends the message that it is patriotic so materialize women. It is important that we understand these messages because millions have purchased this album and possibly did not give thought to what these images symbolize. I believe, by purchasing this album, it sends the message that the purchaser believes in materializing women and finds it acceptable in our culture. The purpose of this album cover is primarily to sell a product. However, there is an unspoken goal to convince, from a credible source that women are to be materialized and factors such as their education and personal morals/beliefs are irrelevant. This album cover intensely perpetuates gender stereotypes and sticks closely to the traditional values of "Rock and Roll" culture as well as the American media. In this presentation, I will discuss the Gender/Feminist Criticism method, further analyze this rhetorical artifact and evaluate the messages in which are being sent to consumers.

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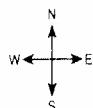
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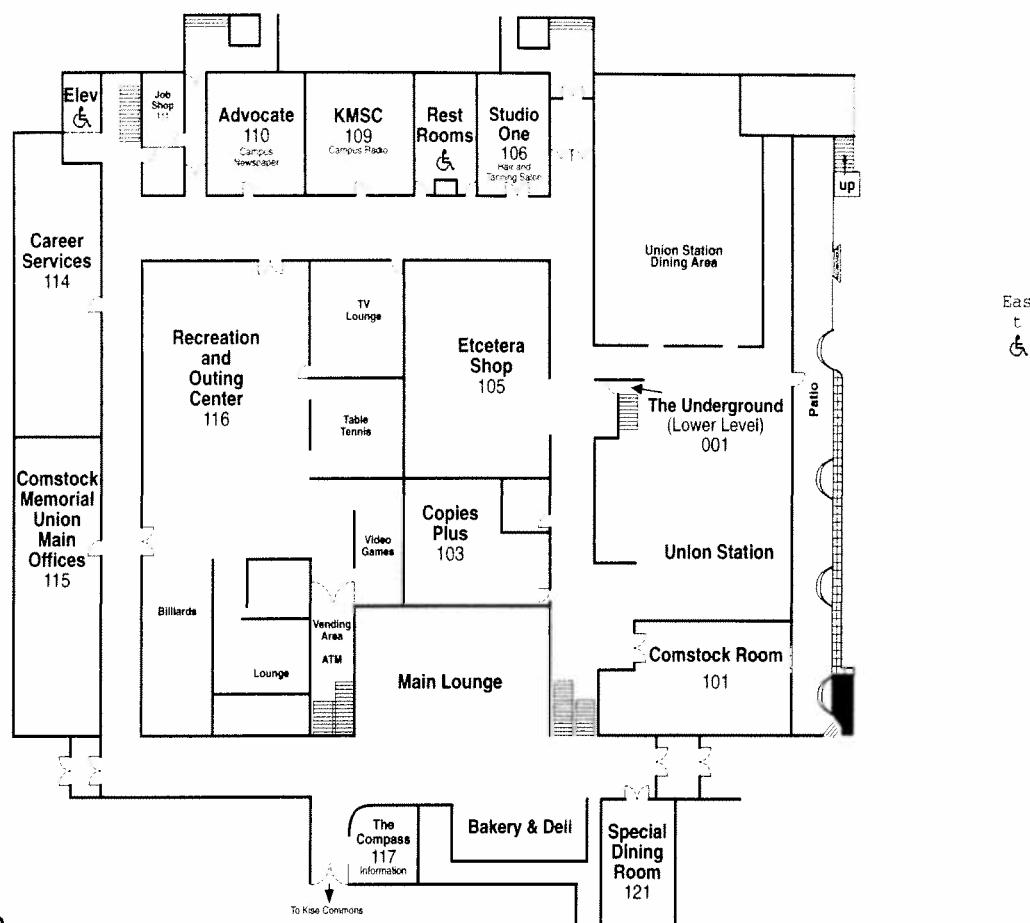
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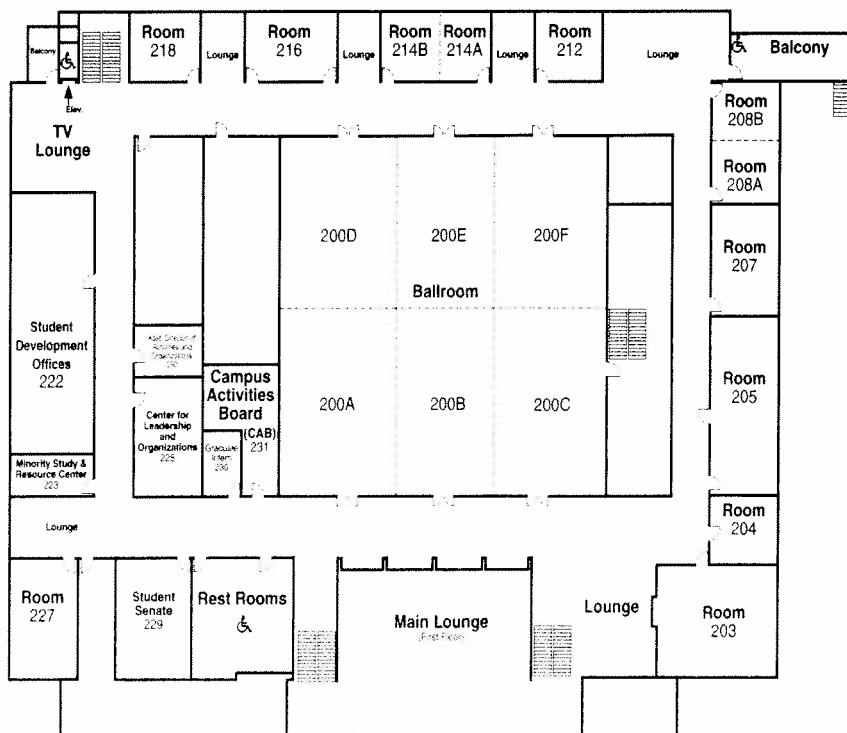


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