

13th Annual
**undergraduate
research
conference**

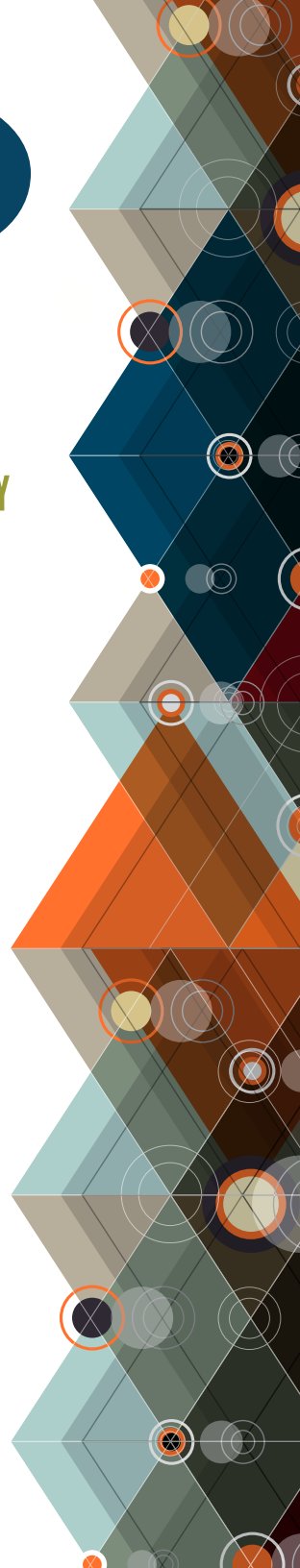


SOUTHWEST MINNESOTA STATE UNIVERSITY

**Wednesday,
December 5, 2018**

**Starting at 8:30 a.m.
SMSU Conference Center**

PROGRAM



Welcome and Keynote

SMSU Conference Center Upper Level

- 8:30..... **Dr. Connie J. Gores, SMSU President**, Opening Remarks
- 8:45..... **Dr. Stephanie M. Gardner**, Assistant Professor of Biology,
Purdue University, West Lafayette, Indiana
*Keynote Address: What are you trying to say?: Scaffolding student
learning of data communication*

ORAL SESSION A

SMSU Conference Center Upper Level

Biology, Creative Writing, Environmental Science, Philosophy

- 9:45..... Aaron B. Wilson, Environmental Science, Investigation of Potential
Source Population for Recently Established Smallmouth Bass
Micropterus dolomieu Population in Lake Traverse MN/SD by Using
Random Amplified Polymorphic DNA (RAPD)
- 10:00..... Chance Steward, Environmental Science, Characterization of Trees
and Soil Properties on Granitic Soil Islands in the Minnesota River
Valley
- 10:15..... Hunter Czcycalla, Environmental Science, Lichen populations on
different types of granitic rocks in the Minnesota River Valley
- 10:30..... BREAK
- 10:45..... Ely Rogers, Environmental Science, Growth of Lichens *Dimelaena
oriena* and *Xanthoria elegans* on Tombstones in Southwest
Minnesota
- 11:00..... Sandra Shimba, Prabhat Shrestha & Abidemi Folorunso, Biology,
Bird mortality due to window collision in Southwest Minnesota State
University
- 11:15..... Katie Kindvall, Marco Gacke & Abisola Adetimehin, Biology, The
Effects of Earthworms on Soil Composition in Different Habitats in the
SMSU Wildlife Area
- 11:30..... Shawn Griffin, Brent Huls & Noah Sander, Biology, Examining the
Relationship between Water Quality and Zooplankton Populations
- 11:45..... Blythe Zeug, Katie Boerboom & Hannah Lund, Biology, Biological
assessment of aquatic macroinvertebrates in Bluebird Stream,
Ghent MN
- 12:00-1:00 ... LUNCH BREAK
- 1:00..... Moses Ogundipe, Rabina Saud & Spencer Erickson, Biology,
Daphnia magna Population Response to Different Sources of Algae
as a Food Source

- 1:15..... Fadumo Ismail, Nona Meunsky & Pushpa Chhantyal, Biology, Effects of Calcium and Protein Diets on House Cricket (*Acheta domestica*) Growth and Development
- 1:30..... Brenna Kramer, Britney Thompson & Sarah Kleve, Biology, Comparison of arthropod communities between prairie and wetland habitats in the SMSU Wildlife Area
- 1:45..... Cody Friedges, Pradip Bhandari & Adrien Gustave, Biology, Comparative biodiversity of aquatic invertebrates in wetlands surrounding Southwest Minnesota State University
- 2:00..... Benjamin Broze, Philosophy, Confucian Ethics in College Athletics
- 2:15..... Shawn Valez, Philosophy, Hume's Ethics for Moral Persons and A.I.
- 2:30..... Justin Trotter, Philosophy, John Stuart Mill & Utilitarianism
- 2:45..... Kelly Regan, Philosophy, Euthanasia in Our Society
- 3:00..... Caleb Trang, Creative Writing, The Man in the Window: A Senior Portfolio Reading of Original Works
- 3:30..... Austin (AJ) Rusch, Creative Writing, Animals—What They Give & What They Take: A Senior Portfolio Reading of Original Works
- 4:00..... Selina McCool-Kamstra, Creative Writing, More than a Story: A Senior Portfolio Reading of Original Works
- 4:30..... Sophia White, Creative Writing, Lively Levity: A Senior Portfolio Reading of Original Works
- 5:00..... Desiree Bauer, Creative Writing, Stories of America's Great Pastimes: A Senior Portfolio Reading of Original Works
- 5:45..... Awards Ceremony, Library Research Awards Presented

ORAL SESSION A

SMSU Charter Hall 201

History, Philosophy, Sociology and Theatre

- 9:45..... Rachal Albrecht, Philosophy, Exploring and Defending Animal Righting in the History of Moral Ethics
- 10:00..... Matthew Stude, Philosophy, Kant's Moral Relationship With God
- 10:15..... Catherine Berg, History, Growing Up in Northern Ireland During the Troubles
- 10:30..... BREAK
- 10:45..... Dalton Dahl, History, The Presence and Influence of 1960s Counterculture in Southwest Minnesota
- 11:00..... Levi Magnuson, History, The Death of the Prague Spring
- 11:15..... Nicholas Goette, History, The Italian Wars: A Quagmire of Violence
- 11:30..... Laurie M. Ourada, Sociology, Doing Sociology: Advocacy and Networking in Students Disability Services
- 11:45..... Deja Chappell, Sociology, Peer Interaction and Self Image Among College Students
- 12:00-1:00 ... LUNCH BREAK

- 1:15..... Julie Denning, Sociology, Adolescent Eating Disorders; Gender and Body Image
- 1:30..... Hannah Redmond, Sociology, My Experience at W.R.A.P.
- 1:45..... Callie Severson, Sociology, Social Control: Working With Disabled Adults in Independent Settings vs. Total Institutions
- 2:00..... Paul Ragan, Theatre, The Evolution of the Theater Space: Ancient Greece to Present
- 2:15..... Chase Hamilton, Sociology, Identity Work and Social Relationships in Distance Running
- 2:30..... Colten Specht, Sociology, College students attitudes towards marijuana use and legalization
- 2:45..... Raxson Rax, Theatre, Theatre Depicted in Paintings
- 3:00..... BREAK
- 3:15..... Whitney McCamish, Theatre, Shakespeare In Love
- 3:30..... Danny McDonnell, Theatre, The Mandrake presented by Riverside Theatre starring Tom Hanks
- 3:45..... Caitlin Schmidt, Theatre, Magic, Myth, and Medea
- 4:00..... Jordan Stangeland, Theatre, The History of the Occult in Dramatic Literature
- 4:15..... Paran Kashani, Theatre, Stage Makeup in Shakespeare's Time
- 4:30..... Alyssa Ehlen, Theatre, The influence of women in Greek Theatre
- 4:45..... Dillon Baxendell, Theatre, Greek through Medieval Costume Designs
- 5:00..... Donna Bastemeyer-Parlin, History, Sister Elizabeth Kenny and the Treatment of Polio
- 5:15..... Jenny Homan, Theatre, Romeo and Juliet: The transition from stage to the big screen
- 5:30..... Jesse McArdell, History, The Republican Party of Minnesota's 1975 state convention: A response to political turmoil aimed at attracting disaffected voters

POSTER PRESENTATION SESSION A

SMSU Conference Center Lower Level

Posters displayed 8:30 a.m. to 5:00 p.m.

Times shown indicate when authors will be present at the poster

*Agribusiness, Agronomy, Biology, Environmental Science,
Exercise Science, Hospitality, Mathematics, Nursing, Physics*

- 1..... C. Bridget Dubrey, Biology, Rebuilding Sustainable Coral Reefs: Exploring Coral Gardening and the 2D Coral Preparative Tool, Formal 3:30-4:00, Informal 10:45-11:15, 4:00-4:30
- 2..... Easton Popma, Biology, The Potential of Melatonin in Reducing Alzheimer's Disease-Induced Cognitive Impairments, Formal 9:45-10:15, Informal 10:15-10:45, 1:30-2:00
- 3..... Sarah Kleve, Biology, Genetic changes as a potential mechanism of malignant transformation of endometriosis, Formal 2:00-2:30, Informal 2:30-3:00, 4:00-4:30
- 4..... Adrien Gustave, Biology, Mechanism of Isocitrate Dehydrogenase Associated with the avoidance Immune response in Glioma tumors, Formal 10:15-10:45, Informal 10:45-11:15, 3:30-4:00
- 5..... Katie Boerboom, Biology, Bisphenol-A may accelerate Diabetes Type-1 development, Formal 1:00-1:30, Informal 9:45-10:15, 1:30-2:00
- 6..... Jordan M. Deuel, Biology, Mutations to the IRF6 gene correlated to the phenotypic expression of cleft lip/palate, Formal 2:30-3:00, Informal 10:15-10:45, 3:00-3:30
- 7..... Spencer Erickson, Biology, The Ketogenic Diet Effectively Targets Brain Cancer Cell Metabolism, Formal 10:45-11:15, Informal 11:15-11:45, 4:30-5:00
- 8..... Gus Molina, Biology, Role of complement C3 on Alzheimer's disease, Formal 1:30-2:00, Informal 11:30-12:00, 2:00-2:30
- 9..... Selena Herr, Biology, EGFR mutation involvement with lung cancer in never smoking Asian women, Formal 4:00-4:30, Informal 1:00-1:30, 3:00-3:30
- 10..... Britney Thompson, Biology, Impact of climate change on phenology of migratory birds, Formal 4:30-5:00, Informal 9:45-10:15, 2:30-3:00
- 11..... Blythe Zeug, Biology, Assessing Cardiac Autonomic Dysfunction via Heart Rate Variability in Multiple Sclerosis Patients, Formal 3:00-3:30, Informal 1:00-1:30, 3:30-4:00
- 12..... WITHDRAWN
- 13..... Ashle Benson & Amanda Stafford, Agribusiness, Agriculture Development in Croatia, 3:00-4:30
- 14..... Aaron B. Wilson, Environmental Science, A Short Term Assessment of Biotic and Abiotic Factors in a Wetland Near Marshall, MN, 3:30-5:00

- 15..... Dianne Johnson, Nursing, College Student Sleep Habits Affect Health, 1:30-3:00
- 16..... Carter Barker, Mathematics, Non-unique Factorizations in Matrix Number Theory, 1:30-3:00
- 17..... Dylan A. Wenninger-Parsons & Katelynn M. Nohner, Physics, High altitude stratospheric ballooning, in conjunction with MN West Community and Technical College, Worthington campus, 1:30-3:00
- 18..... Hallie Will & Shantel Koering, Agribusiness, Agriculture Production Comparison in Sub-Saharan and Developing Countries, 9:30-11:00
- 19..... Ryan Souther, Erin Richardson & Louis Lozinski, Biology, Allelopathic effect of citrus peels on early growth of corn, Ryan, Erin: 1:30-2:15, Louis: 10:15-11:00
- 20..... Cole Bly, Agronomy, Cover Crops and Soil Fertility Benefits, 2:30-4:00
- 21..... Tara Thapa Magar & Paul Thurin, Biology, The Allelopathic Effects of Sunflower Seed Extract on Vegetative Corn Growth, 3:00-3:45
- 22..... Brook Stang, Mathematics, Continuous Nowhere Differentiable Functions, 9:30-11:00
- 23..... Jonathan Dicke, Morgan Darner, Blythe Zeug, Ellie Senica, Jordan Scheidecker & Kelly Fitzsimmons, Exercise Science, Pulse Wave Velocity and Arterial Measures in Spinal Cord Injured/Disordered Subjects, Jon 1:00-2:30, Jordan 2:30-3:30, Kelly 11:00-12:00
- 24..... Morgan Darner, Jonathan Dicke, Ellie Senica & Blythe Zeug, Exercise Science, Post-exercise ankle-brachial index in spinal cord injured/disordered subjects, Morgan 9:45-11:15
- 25..... Hunter Czycalla, Environmental Science, Seasonal Evaluation of the SMSU Horseshoe Pond, 3:30-5:00
- 26..... Caedyn Reinhardt, Thazin Win, Amy Heibult & Candace Thomas, Biology, Allelopathic Interference of Raspberry Plant Extracts on Young Basil Plant Growth, Caedyn 11:15-12:00, Thazin, Amy 2:00-2:45, Candace 10:15-11:00
- 27..... Candace Thomas, Environmental Science, Riparian Wetland: Ecological Observations of a Segment of the Redwood River near Legion Field in Marshall, Minnesota, 3:30-5:00
- 28..... Kallyssa Klatt, Exercise Science, Effects of Stretching on the Posture of Division II Wrestlers, 10:45-11:45
- 29..... Chance Steward, Environmental Science, Characterization of a Marshall, Minnesota Flood Control Pond and Wetland, 3:30-5:00
- 30..... Derek Harder, Exercise Science, Bilateral Deficit in Counter Movement Jump between Basketball Players, 9:45-10:45
- 31..... Cody Friedges, Environmental Science, Seasonal effects on water quality and biota in the McFarland Pond, 3:30-5:00
- 32..... Kaylee Burmeister, Exercise Science, Comparing Landing Mechanics by Front Row Positions After a Spike in Division II Volleyball Players, 1:30-2:30

- 33..... Ely Rogers, Environmental Science, Observations of Southwest Minnesota State University Mattke Stadium Stormwater Run Off Pond, 3:30-5:00
- 34..... Lukas Johnson, Macy Violet & Jenna Loch, Exercise Science, Relationship Between Hip and Core Muscular Endurance and Lower Extremity Injuries in Division II Women's Soccer, Lukas 1:30-2:30, Macy 2:30-3:30, Jenna 9:45-10:45
- 35..... Sean Amegashie, Environmental Science, Short Term Study of Changes in the KMHL Broadcasting Shallow Marsh, 3:30-5:00
- 36..... Ola Abimbola, Environmental Science, The study of AmericInn Shallow Marsh Wetland in Marshall, MN, 3:30-5:00
- 37..... Samantha Pankratz, Environmental Science, A Short Term Evaluation of Wildlife and Aquatic Conditions of a Minnesota-shaped Wetland near Southwest Minnesota State University, 3:30-5:00
- 38..... Kennedy Lund, Brendan Kienlen & Colton Bates, Biology, Effects of Salinity on Corn and Okra Growth, Kennedy 10:30-11:15, Brendan, Colton, 1:00-1:45
- 39..... Michael Luke, Environmental Science, Deep Marsh Wetland Water Quality Project in Marshall, MN, 3:30-5:00
- 40..... Tanisha Neeley, Baylie Bloomquist & Joey Heinen, Biology, The Allelopathic Effect of Orange Peel Extract on Height and Dry Weight of Basil vs Tomato Plants, Tanisha, Baylie 11:00-11:45, Joey 2:45-3:30
- 41..... Margaret Provo, Environmental Science, Water Quality and Biotic Analysis of a Redwood River Riparian Wetland in Marshall Minnesota, 3:30-5:00
- 42..... Leah Stevens, Deena Weber & Tyler Molitor, Agribusiness, Hunger & Poverty Issues in Yemen, 10:30-12:00
- 43..... Ashley Livermore, Dean Zinda & Hanna Johnson, Hospitality Management, An analysis of the complimentary events during fall sporting events at Southwest Minnesota State University and their impact on student's willingness to attend, 3:00-4:30
- 44..... Emilie Reider, Tristin Leshovsky & Gabrielle Long, Hospitality Management, Residents of Marshall's Opinions on Food Quality and Selections Offered at Concession Stands During Various Sporting Events at the High School and College Level, 3:00-4:30
- 45..... Lauren Sellner, Autumn Schmitz & Evan Bauch, Hospitality Management, Most Popular Bar Food in Marshall, 3:00-4:30
- 46..... WITHDRAWN

POSTER PRESENTATION SESSION B

Student Center Upper Level (SC 216)

Posters displayed 8:30 a.m.- 5:00 p.m.

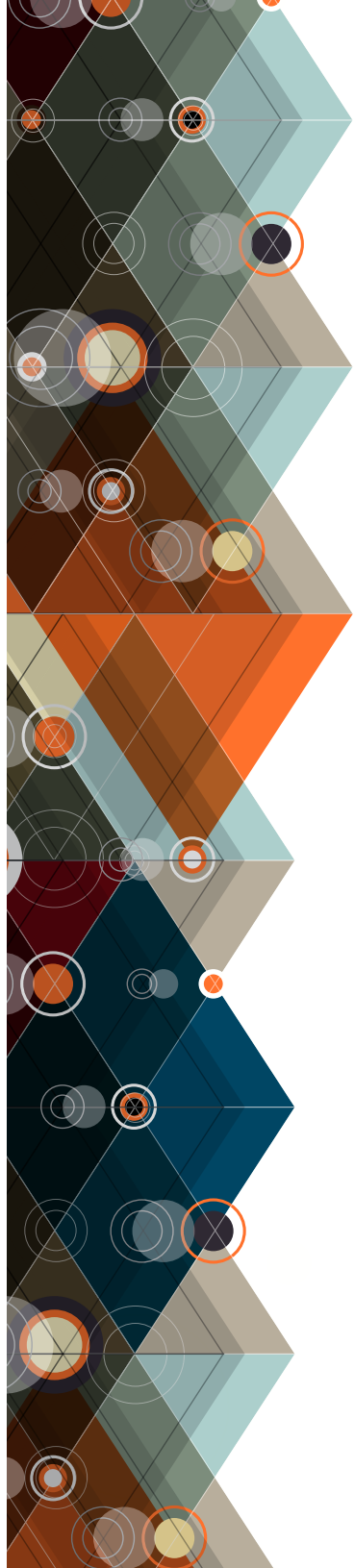
Times shown indicate when authors will be present at the poster

Computer Science, History, Political Science, Philosophy, Psychology

- 47..... Aayush Bajra Bajracharya & Sayana Shrestha, Computer Science, Joy of Gone!, 9:30-11:00
- 48..... Raj Tajale & Nhuja Shakya, Computer Science, Expert Eyebrows, 1:00-2:30
- 49..... Gregory Bowen, Computer Science, Robots Finding Robots: Using Machine Learning to Distinguish Synthetic Speech from Human Speech, 9:30-11:00
- 50..... Rijan Prajapati & Hisila Manandhar, Computer Science, Marshall Bus Tracker, 1:30-3:00
- 51..... Anusha Prajapati & Sanjay Prajapati, Computer Science, Online shopping application, 1:30-3:00
- 52..... Sujan Shahi & Ankit Parajuli, Computer Science, Nepali Bhojan: An Application for all Nepalese Food Recipes, 12:00-1:30
- 53..... Smiti Shakya & Sabin Dhaugoda, Computer Science, SAI company website and web application, 10:30-12:00
- 54..... Ram Shrestha & Anil Gurung, Computer Science, Street League, 10:30-12:00
- 55..... Jackson Bunes, Computer Science, Online Game of Bridge, 3:00-4:30
- 56..... Snowflower Yang & Cody Abraham, Computer Science, Weekly Football Picks Challenge, 12:30-2:00
- 57..... Gregory Bowen, Brook Stang, Jackson Bunes & Justin Trotter, Computer Science, TutorBoard: Creation of a Networked Tutoring Application for Math and Computer Science, Greg 3:00-4:30, Brook 11:00-12:30
- 58..... Gregory Bowen & Brook Stang, Computer Science, MMAP-X: Mobile Multiplatform Application Production with Xamarin for Local Navigation, Greg 3:00-4:30, Brook 11:00-12:30
- 59..... Dylan A. Wenninger-Parsons, Computer Science, Does the use of insulin pumps and continuous glucose monitors with prototyping methods reduce the burden of Type-1 Diabetes? 3:00-4:30
- 60..... Snowflower Yang, Sayana Shrestha, Jason Kleindl & Cody Abraham, Computer Science, Rock Paper Scissor Client Server, Snowflower & Sanyana 9:30-12:00, Jason & Cody 2:00-3:30
- 61..... David Shittu & David Mcharo, Computer Science, Multipurpose Interactive Drawing Board: Tutorials, Drawings or Games, 1:30-3:00
- 62..... Tyler Patterson, History, The Yellowstone Trail, 1:30-3:00
- 63..... JoAnn Chams, History, The Civilian Conservation Corps Camp in Jordan, Minnesota, 1940-1942, 1:30-3:00

- 64..... Brianna Krumwiede, History, Jane Grey Swisshelm: Gender and Politics in Journalism, 10:30-12:00
- 65..... Ethan Fisk, History, The 34th Infantry Division at the Battle of Monte Cassino, 3:00-4:30
- 66..... Josh Falk, History, The T4 Program, 1:30-3:00
- 67..... Colin Hoppe, History, Largest mass execution in human history, 10:30-12:00
- 68..... Cody Huiras, History, Easy Company, 10:30-12:00
- 69..... Loic Dah, Political Science, Workforce development in greater Minnesota, 9:30-11:00
- 70..... Alex Kinda, Political Science, Trends in Health Insurance Access in Minnesota, 9:30-11:00
- 71..... Jesse McCardell, Political Science, Lake Mille Lacs: An examination of the Socioeconomic consequences accrued from a general decline in the fishing industry, 9:30-11:00
- 72..... Jordyn Horn, Samantha Onken, Liz Breyfogle & Christina Rebstock, Psychology, The Generation Effect Integrated with Colors, 10:30-12:00
- 73..... Mariah Henry, Hannah Stremmel & Aaron Tyson, Psychology, The Effects of Mnemonics on Learning English Among Non-Native Speakers, 10:30-12:00
- 74..... Marta Rubin & Samantha McNeel, Psychology, Metacognition and College Students' Study Strategies, 10:30-12:00
- 75..... Hannah Herlyn & Kayla Chisum, Psychology, Facial Recognition and the Effects of Emotion on Memory, 10:30-12:00
- 76..... Kailee Herdina, Shawn Valez & Malik Johnson, Psychology, Effects of Vision on Learning, 10:30-12:00
- 77..... Joel Wallace, Psychology, Comparing Stress, Coping Strategies, and Life Satisfaction for Athletes vs. Non-Athletes, 10:30-12:00
- 78..... Alyssa Strand, Philosophy, Should All Public Playgrounds Be Accessible Playgrounds? 3:00-4:30
- 79..... WITHDRAWN
- 80..... Amanda Stafford, Philosophy, Marketing Morality: Large Businesses Marketing Unhealthy Food in Time of Food Insecurities, 10:30-12:00
- 81..... Jessica Stai, Philosophy, Veganism: Should you join the band wagon? 3:00-4:30
- 82..... Cassie Mages, Philosophy, Friedrich Nietzsche and Morality, 10:30-12:00
- 83..... Addie Miller, Philosophy, Filial Piety Dissolving Over Generations, 3:00-4:30
- 84..... Courtney Trotter, Philosophy, Aristotle's Ethics, 10:30-12:00
- 85..... Shae Sazama, Philosophy, Hume: Psychology Meets Philosophy, 3:00-4:30

- 86..... Stacey Vue, Philosophy, Core Elements of Confucian Virtue Ethic, 10:30-12:00
- 87..... Sophia White, Philosophy, 'Created neither from the head nor the heel': Aquinas and the Mediaeval Woman, 10:30-12:00
- 88..... Ascharya C. Motoori, Philosophy, The Nietzsche's Vision of restructuring Morality and the Fallacy of Sex and Gender in his Theory, 3:00-4:30
- 89..... Wyatt Albers, Philosophy, The Morality of Man: Evaluating the Conclusions of Euthyphro's Dilemma through the Philosophy of St. Augustine and St. Aquinas, 3:30-5:00



 **SOUTHWEST**
MINNESOTA STATE UNIVERSITY