



*a celebration of*

# CREATIVE INQUIRY

HONORS 2013 | FRIDAY, MAY 3, 2013 | 5-7 P.M. | JACKSON CAMPUS CENTER

# From the College's Mission Statement

*The Gustavus curriculum is designed to bring students to mastery  
of a particular area of study within a general framework  
that is both interdisciplinary and international in perspective.  
The College . . . seeks to promote the open exchange of ideas  
and the independent pursuit of learning.*

Welcome to the sixth annual Celebration of Creative Inquiry, a showcase of research, scholarship, and creative work by Gustavus Adolphus College students! We hope you enjoy learning about the creative inquiry our undergraduate students engage in every day at Gustavus Adolphus College, and we hope you will learn about some projects in disciplines other than your own. As you will see, these kinds of projects provoke the intellect and stimulate the learning process—the heart of a true liberal arts education.

Creative inquiry is an intentionally broad term that includes research, scholarship, and creative works. Creative inquiry may be initiated

- ... as part of a class assignment or project;
- ... by the student or group of students, on- or off-campus;
- ... by the faculty member, as in student-faculty collaborative research projects.

And the definition of creative inquiry varies by discipline but includes

- ... asking a question that has not been asked before;
- ... a process that attempts to fill a gap in or create new knowledge, information, or art;
- ... a process or product that requires the student to add ideas or imagination of their own;
- ... a project that is shaped by choices that the student made independently;
- ... a component of critical reflection.

~ Tom Huber  
Faculty Associate for Undergraduate Research,  
John S. Kendall Center for Engaged Learning

*This event is supported by the Provost's Office, the Office of Marketing and Communication, and the John S. Kendall Center for Engaged Learning.*

*Special thanks to Cathy Blaukat for organization and administrative support, Physical Plant and Dining Service for their assistance in setting up and arranging this event, and all the faculty and student volunteers who helped to make this event possible!*

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The John S. Kendall Center for Engaged Learning supports faculty in achieving their potential as teachers and scholars. Responsive to the professional needs and interests of each faculty member, the Kendall Center includes support for teaching initiatives and faculty research, scholarship, creativity, and provides on-campus opportunities for focused conversation on pedagogy, assessment of student learning, and collaboration among colleagues. Through its support of such opportunities, the Kendall Center fosters the pursuit of teaching and scholarly excellence throughout all stages of each faculty member's career and for all Gustavus students. Undergraduate research is one of the primary areas supported by the Kendall Center that demonstrates faculty and student engagement in learning.

# Participants

## **Kelsey Abele, Cadi Kadlecek (Forensics)**

Sponsor: Cadi Kadlecek, Forensics

*Three Crowns Room, Session B*

“Bridging the Gap between Forensics and the Youth Community: Priming the Next Generation”

## **Christopher Anderson (Lewis and Clark College), Marion Scheepers (Boise State University), Marlena Warner (University of Idaho), Helen Wauck**

Sponsor: Max Hailperin, Mathematics and Computer Science

*Three Crowns Room, Session A*

“Ciliate Genome Remodeling”

## **Lauren Anderson**

Sponsor: Anna Versluis, Geography

*Three Crowns Room, Session B*

“Somali Immigrant Relations in a Rural Midwestern Town”

## **Anna Ayers Looby**

Sponsor: Mimi Gerstbauer, Peace Studies

*Three Crowns Room, Session A*

“The Warfare of Rape: Destruction of Peace at Its Core”

## **Brin Bailey, Dawn Comstock, Kyle Hilding, Maggie Lane, Michelle Myers, Michaela Rice**

Sponsor: Dave Newell, Center for Servant Leadership

*Three Crowns Room, Session B*

“Understanding Civility through Community-Based Research”

## **Katie Barta, Sam Good**

Sponsor: Jim Dontje, Environmental Studies

*Three Crowns Room, Session A*

“Sustainability at Gustavus: Biking Initiatives”

## **Katie Barta**

Sponsor: Jim Dontje, Environmental Studies

*Three Crowns Room, Session B*

“Gustavus Garage Sale”

## **Emily Batchelder**

Sponsor: Lynnea Myers, Nursing

*Three Crowns Room, Session B*

“Effect of Summer Institute on High School Students’ Perceptions of Pursuing a Nursing Career”

## **Elsa Bell**

Sponsor: Anna Versluis, Geography

*Three Crowns Room, Session A*

“Benefits of Urban Gardening”

## **Eli Benz, Kat Dahl**

Sponsor: Mike Ferragamo, Biology

*Three Crowns Room, Session B*

“The Effect of Scopolamine Bromide on Spatial Learning by Rats”

## **Zachary Harrison Blinkinsop, Krystal Bundy, Ian Decker, Reanna Phillips, Kenwon Tran, Amanda Wood**

Sponsor: Seán Easton, Classics

*Three Crowns Room, Session A*

“The Rhythm of Love: A Metrical Performance of Catullan and Horatian Poetry”

## **Laurel Boman**

Sponsor: Eric Dugdale, Classics

*Three Crowns Room, Session B*

“The Ethnic Medea on the American Stage: Colonization and Decolonization through the Classics”

## **Kendra M. Braegelmann**

Sponsors: Jan Wotton, Neuroscience and Mike

Ferragamo, Neuroscience

*Three Crowns Room, Session A*

“Relationship between Salicylate Induced Tinnitus and Circadian Rhythm”

## **Elizabeth Brauer, Steffanie Larson**

Sponsor: Ana Adams, Modern Languages, Literatures, and Cultures

*Three Crowns Room, Session A*

“Engaging Minority Entrepreneurship: A Partnership in Support of the Entrepreneur Doorway Project”

## **Amy M. Brooks**

Sponsor: Heidi Meyer, Nursing

*Three Crowns Room, Session A*

“Exploring First Year College Students’ Perception and Knowledge of Digital Abuse”

## **Tram Bui**

Sponsor: Peg O’Connor, Philosophy

*Three Crowns Room, Session B*

“The Philosophy of Sexual Addiction and Recovery”

**Daniel Burnett**

Sponsor: Kara Barnette, Philosophy  
*Three Crowns Room, Session B*

“Foundations of Harm, Foundations of Knowledge”

**Matt Bye**

Sponsor: Mark Bjelland, Geography  
*Three Crowns Room, Session A*

“Parishes without Borders: Congregational Geography in Minneapolis and St. Paul”

**Kristen Campbell**

Sponsor: Carolyn Dobler, Mathematics and Computer Science

*Three Crowns Room, Session B*

“Tobacco Use by Women during Pregnancy”

**Mia M.S. Cannon**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Three Crowns Room, Session A*

“Rehabilitating Child Soldiers”

**Nora Christensen, Michael Howe**

Sponsor: Thomas Gardner, Chemistry  
*Three Crowns Room, Session B*

“Synthesis of the Bifacial Ligand,  
 1,6,7,12-Tetraazaperylene: A New Approach”

**Matthew Collins, Ryan Williams, Olivia Johnson**

Sponsor: Bruce Van Duser, Health & Exercise Science  
*Three Crowns Room, Session B*

“Comparison of Plyometric Training and Traditional Run Training on Two-Mile Run Performance”

**Cory Colvard, Cory Anderson**

Sponsor: Stephanie Otto, Health & Exercise Science  
*Three Crowns Room, Session A*

“The Effects of Creatine Monohydrate on 2-Mile Run Time”

**Austin Conrad**

Sponsor: Doug Huff, Philosophy  
*Three Crowns Room, Session B*

“The Hobbit and The Dark Knight Rises: Aristotle in Modern Literature”

**Grant Cooper**

Sponsor: Laura Triplett, Geology  
*Three Crowns Room, Session B*

“Mapping Tree Growth and Survivorship in Monteverde, Costa Rica”

**Susan Crane**

Sponsor: Eric Dugdale, Classics  
*Three Crowns Room, Session B*

“Divine Suffering and the Human Experience”

**Amanda Croonquist**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Faculty/Staff Lounge, Session B*

“Alternative Methods of Incarceration”

**Teige Cudahy**

Sponsor: Anna Versluis, Geography  
*Faculty/Staff Lounge, Session B*

“Are We Happy Here? A Proposed Study of Sense of Place and Subjective Wellbeing”

**Kat Dahl, Erin Sherman, Heather Annis, Jim Hill, Jacob Forcier, Heather Goff, Britta Rinke, Matt Keller, Torey Asao, Blair Riegel, Laurel Krebsbach, Liz Strom, Nikki Carlson, Shelby Winzent, Quinn Arnold: Student Athlete Volunteer Educators**

Sponsor: Kari Eckheart, Athletics  
*Faculty/Staff Lounge, Session A*

“Student Athlete Volunteer Educators Promote Healthy Choices by Hosting Mission Nutrition Events in March”

**John Danforth, Dwight Stoll (Chemistry), David Harmes (Chemistry), James Arps (ProMed)**

Sponsor: Dwight Stoll, Chemistry  
*Faculty/Staff Lounge, Session B*

“Release Rates of the Steroid Dexamethasone Phosphate (DSP) from Silicon Rods Used in Implantable Medical Devices”

**Nathan Dexter**

Sponsor: Anna Versluis, Geography  
*Faculty/Staff Lounge, Session A*

“Language in Flux: Sami and Meänkieli Languages in Northern Sweden”

**LaTreasure Dickson**

Sponsor: Bruce Van Duser, Health & Exercise Science  
*Faculty/Staff Lounge, Session B*

“Relationship of Low Back Pain and Number of Years in Participation in Gymnastics”

**Keith Diers**

Sponsor: Kyle Momsen, Health & Exercise Science  
*Faculty/Staff Lounge, Session A*

“Changes in Shoulder Range of Motion of Collegiate Overhead Athletes over a Two Month Period”

**Hollie Edlund**

Sponsor: Melissa Rolnick, Theatre & Dance  
*Faculty/Staff Lounge, Session A*

“Movement for Movementsake”

**Lars Ericson**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Faculty/Staff Lounge, Session A*

“Segregation Lives: 60 Years after Brown versus Board of Education Segregated Schools Divide America”

**Courtney Farland**

Sponsor: Stephanie Otto, Health & Exercise Science  
*Faculty/Staff Lounge, Session B*

“Gusties Love Group Exercise”

**Kexin Feng**

Sponsor: Sheng-Ping Yang, Economics & Management  
*Saint Peter Room, Session A*

“The Impact of Health Insurance Coverage on the Choices of Medical Services: A Multinomial Logit Approach”

**Laura Flicek, Samantha Thrane**

Sponsor: Ana Adams, Modern Languages, Literatures, and Cultures

*Three Crowns Room, Session A*

“Engaging Minority Entrepreneurship: A Partnership in Support of the Entrepreneur Doorway Project”

**Hannah Forster, Kelly Okerman, Aurie Domholt**

Sponsor: Michele Koomen, Elementary & Secondary Education

*Three Crowns Room, Session B*

“Recognizing the Middle Child: Under Which Circumstances Do We Overlook These Students and Why?”

**Katherine H. Frehner**

Sponsor: Beatriz Torres, Communication Studies  
*Saint Peter Room, Session A*

“The Dangerous Uses of Online Support Groups: A Cyberethnography on My ProAna”

**Ava Goepfert**

Sponsor: Patricia English, Communication Studies  
*Saint Peter Room, Session A*

“From Home to Dorm: First Year Students’ Meanings of Home”

**Karl M. Grant**

Sponsor: Eric Dugdale, Classics  
*Saint Peter Room, Session B*

“How Herakles Helps Us Tell Better Stories: Intertextuality as a Narrative Tool”

**Daria Grishina**

Sponsor: Thomas Gardner, Chemistry  
*Saint Peter Room, Session A*

“Towards a Novel Switchable Aromatic Hemiporphyrizine Ligand”

**Tiamat Gustafson**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Saint Peter Room, Session B*

Overthrowing the Red State: The Impossibilities of Life within a Prison Camp”

**Jennifer Hernandez, Abby Schnorr**

Sponsor: Ana Adams, Modern Languages, Literatures, and Cultures

*Three Crowns Room, Session A*

“Engaging Minority Entrepreneurship: A Partnership in Support of the Entrepreneur Doorway Project”

**Sam Hoppe**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Saint Peter Room, Session A*

“Moving towards Restorative Justice in the US Prison System”

**Matt Humphries**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Saint Peter Room, Session B*

“Nonviolent ‘Weapons’ Are More Effective than Violent Ones”

**Katharina Janzen**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Saint Peter Room, Session A*

“How Mennonite Teachings Build a Culture of Peace”

**Mariecus C.M. Jarvis, Audrey Messelt**

Sponsor: Karla Marz, Biology  
*Heritage Room, Session B*

“Mapping the Period (PER) Binding Surface of the Circadian Clock Protein Cryptochrome (CRY)”

**Gena Jenniges**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Heritage Room, Session A*

“Resource Wars: Is Privatization Really the Answer?”

**Amy Jensen**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Heritage Room, Session A*

“The Myth of War for the U.S. Needs De-  
glorification”

**Elizabeth Johnson**

Sponsor: Kathi Tunheim, Economics & Management  
*Heritage Room, Session A*

“Sweden: Pioneering Gender Equality and Advocacy  
for Women in Contemporary Enterprises and the  
Home”

**Jenna King**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Heritage Room, Session B*

“Homosexuality in Islam Nations”

**David Kramer, Kayla Shrupp**

Sponsor: Bruce VanDuser, Health & Exercise Science  
*Heritage Room, Session A*

“Myofascial Release (Foam Rolling) on the Sit and  
Reach Test and One-Mile Run”

**Tim LaBombard**

Sponsor: Anna Versluis, Geography  
*Heritage Room, Session B*

“Land Use Change Due to Mississippi River Flooding  
in Southern Minnesota”

**Kirsten Larsen, Rachel Larson (Chaplain)**

Sponsor: Rachel Larson, Chaplain  
*Heritage Room, Session A*

“Labyrinth in Linnaeus Arboretum”

**Trang H. Le**

Sponsor: Beatriz Torres, Communication Studies  
*Heritage Room, Session B*

“Understanding the Bully Online Forum through  
Social Exchange Theory”

**Karla Leitzman**

Sponsor: Amy Seham, Theatre & Dance  
*Heritage Room, Session A*

“Performing a One Woman Show: The Edge of Our  
Bodies by Adam Rapp”

**Kelsey Lucia, Kassandra Lueth**

Sponsor: Heidi Meyer, Nursing  
*Saint Peter Room, Session A*

“Knowledge of Human Papillomavirus and Vaccine in  
Young Adult Males”

**Matthew Lunde**

Sponsor: Bruce Van Duser, Health & Exercise Science  
*Saint Peter Room, Session B*

“Difference in Maximal Oxygen Uptake and Lactic  
Acid Accumulation between Singles and Doubles  
Tennis Athletes”

**Danielle Mangine**

Sponsor: Thomas Gardner, Chemistry  
*Saint Peter Room, Session B*

“Diels-Alder Reactions of Prochiral 1,5-Disubstituted  
Anthracenes towards the Creation of Chiral Auxiliaries  
and Ligands”

**Christina Mantey**

Sponsor: Barbara Zust, Nursing  
*Saint Peter Room, Session B*

“Cultural Ethical Challenges: Exploring the Lived  
Experience of Nurses Caring for Culturally Diverse  
Patients”

**Chris Masad**

Sponsor: Anna Versluis, Geography  
*Saint Peter Room, Session A*

“Comparing Greek and Roman Geographers”

**Chris Masad**

Sponsor: Eric Dugdale, Classics  
*Saint Peter Room, Session B*

“The Roman Theater as an Empirical Tool”

**Zoë May**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Heritage Room, Session B*

“Can We Create Peace through Food? Addressing  
Gender Disparities and Building Stronger, More  
Peaceful Communities through Food Production”

**Amanda Miller, Daniel Moos (Education)**

Sponsor: Daniel Moos, Elementary & Secondary  
Education  
*Heritage Room, Session A*

“The Role of Epistemological and Self-Regulated  
Learning Beliefs in Pre-service Teachers’ Evaluation of  
Lesson Plans”

**Kristin Moen**

Sponsor: Anna Versluis, Geography  
*Heritage Room, Session B*

“Comparing How Work and Family/Life Balance  
Affects Life Satisfaction in Denmark and the United  
States”



**Kristen Montijo**

Sponsor: Jennifer Ackil, Psychological Science

*Heritage Room, Session A*

“The Continued Influence Effect and Supplementary Misinformation”

**Briana Mork**

Sponsor: Steve Mellema, Physics

*Heritage Room, Session B*

“Optical Imaging by Reflection through Random Media”

**Emma Motl, Xi Wang, Bryan Miles, Kelly O’Neill, Kendyl Greimann, Kayla Hanninen**

Sponsor: Thomas Gardner, Chemistry

*Heritage Room, Session A*

“Construction of Two-Fold Symmetric Phthalocyanines for the Purpose of Creating Linear Coordination Phthalocyanine Polymers”

**Peter Moua**

Sponsor: Mimi Gerstbauer, Peace Studies

*Heritage Room, Session B*

“The Ones That Are Left: Among People in an Unwanted Land”

**Adriana Mozo, Sammi Wright**

Sponsor: Ana Adams, Modern Languages, Literatures, and Cultures

*Three Crowns Room, Session A*

“Engaging Minority Entrepreneurship: A Partnership in Support of the Entrepreneur Doorway Project”

**Tyler Mulcahey**

Sponsor: Bruce Van Duser, Health & Exercise Science

*Heritage Room, Session A*

“Comparison between High-Intensity Resistance Training and Traditional Resistance Training on Strength Gains and Cardiovascular Fitness”

**Ryan Ness, Connor Norris**

Sponsor: Bruce Van Duser, Health & Exercise Science

*Heritage Room, Session B*

“Plyometric vs. Squat/Power Clean on Vertical Jump and 30 M. Sprint Performance in Non-athlete Women”

**Trevor Oestenstad**

Sponsor: Annabel Landaverde, Admission

*Heritage Room, Session A*

“Bienvenidos a Gustavus: Translating Admission Materials and Its Implications”

**Sophia Ogren-Dehn, Greg Wiessner, Alex Christianson**

Sponsor: Jim Dontje, Environmental Studies

*Heritage Room, Session B*

“Coca-Cola Educational Partnership Grant: Big Hill Farm”

**Rachel P. Oien**

Sponsor: Laura Triplett, Geology

*Heritage Room, Session A*

“Mapping Depth to Bedrock in a Tropical Pre-Montane Wet Forest in Costa Rica”

**Chris Olson**

Sponsor: Mimi Gerstbauer, Peace Studies

*Faculty/Staff Lounge, Session A*

“Drones: A Bird’s Eye View”

**Tasha Ostendorf**

Sponsor: Jan Wotton, Neuroscience

*Heritage Room, Session B*

“Hoarding Behavior: A Review of Current Research and Theory”

**Tony Ouradnik**

Sponsor: Mimi Gerstbauer, Peace Studies

*Heritage Room, Session B*

“Democracy: An Optimal Solution”

**Reanna Phillips**

Sponsor: Eric Dugdale, Classics

*Heritage Room, Session B*

“Heroic and Sympathetic Criminals: How Ancient Athenians Understood Morally Complex Figures as Depicted in Tragedy and Pottery”

**Jasmine Porter**

Sponsor: Anna Versluis, Geography

*Faculty/Staff Lounge, Session B*

“Incorporating Garden-Based Learning Curricula into School Classrooms”

**Alexa Potts, Alyssa Gaulrapp**

Sponsor: Lynnea Myers, Nursing

*Heritage Room, Session A*

“High School Students’ Perception of Nursing”

**Miranda Quirk Becker**

Sponsor: Anna Versluis, Geography

*Heritage Room, Session B*

“What St. Paul Can Learn From Christchurch, New Zealand, on Sustainable Living: Composting”

**Saskia Raether**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Heritage Room, Session B*

“The Validity of Ecotourism as a Peacemaker”

**Griffin Reed**

Sponsor: Aaron Banks, Health & Exercise Science  
*Heritage Room, Session A*

“Nature Deficit Disorder: Causes, Effects, and Solutions for Gusties”

**Chelsey Richardson, Lexi Quale, Cassie Rogness**

Sponsors: Kari Eckheart, Peer Education & Chemical Health, and Stephanie Otto, Health & Exercise Science  
*Rundquist Room, Session A*

“Gusties Go Healthy: 2013 Well-Being Fair”

**Jessica Richert**

Sponsor: Eric Carlson, History  
*Rundquist Room, Session A*

“Eugenics as a Transnational Movement during the Interwar Period”

**Christine Roering, Mary Joos (HES)**

Sponsor: Mary Joos, Health & Exercise Science  
*Rundquist Room, Session B*

“Plantar Fasciitis Treatment: A Meta-Analysis”

**Jennessa Runia**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Rundquist Room, Session A*

“The Use of Rape and Other Sexual Violence in Times of War”

**Elizabeth Schmidt**

Sponsor: Patricia English, Communication Studies  
*Rundquist Room, Session A*

“The Lived Experience of Single Parent Family Members”

**Lucas Seewald**

Sponsor: Tom Huber, Physics  
*Board Room, Session B*

“Scanning Vibrometry Studies of Reed Dynamics in Reed Organ Pipes”

**Ian Shay, K. Angelique Dwyer (MLLC)**

Sponsor: K. Angelique Dwyer, Modern Languages, Literatures, and Cultures  
*Rundquist Room, Session B*

“Lila Downs: Performing Panlatinidad through Folklore”

**Daniel Sinda, Sanjive Qazi (Biology)**

Sponsor: Sanjive Qazi, Biology  
*Rundquist Room, Session A*

“Instituting the Concept of Well-Being in Clients with Mental and Physical Instability and Disability”

**Zachary Stackhouse**

Sponsor: Anna Versluis, Geography  
*Rundquist Room, Session B*

“HIV/AIDS in South Africa”

**Josie Steinmetz, Anna Ayers Looby, Kacy Lorber, Kayla Hanninen, Kendyl Greimann**

Sponsor: Thomas Gardner, Chemistry  
*Rundquist Room, Session B*

“Reduced-Symmetry ABAC Metallophthalocyanine Complexes from a Tethered Phthalonitrile Trimer”

**Chloe Strand**

Sponsor: Mimi Gerstbauer, Peace Studies  
*Board Room, Session A*

“Conflict, Peace, and Children: Building a Brighter Future”

**Danielle Thibodeau, Samantha Opsahl**

Sponsor: Barbara Zust, Nursing  
*Board Room, Session A*

“Exploration of Parents’ Thoughts and Beliefs toward Vaccinating or Not Vaccinating Their Children in the Rural Area”

**Tia Thompson, Madison Wroge**

Sponsor: Ana Adams, Modern Languages, Literatures, and Cultures  
*Three Crowns Room, Session A*

“Engaging Minority Entrepreneurship: A Partnership in Support of the Entrepreneur Doorway Project”

**Bennett Thrash**

Sponsor: Anna Versluis, Geography  
*Heritage Room, Session A*

“East African Immigrant Assimilation in Minnesota”

**Julia Tindell**

Sponsor: Amy Seham, Theatre & Dance  
*Board Room, Session B*

“At Risk: Writing Mental Illness into Contemporary Theatre”



**Courtney Train**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session B*

“Torture, Desire, and the Other: Prisoner Abuse”

**Tuan Tran, Ian Gibbs-Hall, Paul Young, Doug Fryer (United Science, LLC), Conor Smith (United Science, LLC), Jon Thompson (United Science, LLC), Bill Barber (Agilent Technologies)**

Sponsor: Dwight Stoll, Chemistry

*Board Room, Session A*

“Characterization of Carbon-Modified Silicas for Use in Analytical Liquid Chromatography”

**James Trevathan, Paul Saulnier (Physics)**

Sponsor: Paul Saulnier, Physics

*Board Room, Session A*

“Characterization of Diffuse Media with Laser Speckle”

**Andrew Vold**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session A*

“Microcredit: Providing a Path to Freedom”

**Allyson Voss**

Sponsor: Marisa Kalbermatten, Modern Languages, Literatures, and Cultures

*Board Room, Session B*

“A Social, Political, Historical and Cultural Perspective on Urdu Linguistics”

**Katelyn Warburton**

Sponsor: Lisa Rinehart, Counseling Center

*Board Room, Session A*

“Be the Light! Offering Therapeutic Light Boxes to Gustavus Adolphus Students and Faculty”

**Breanna Wegner**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session B*

“Peace Keeping Bodies through the Years”

**Brian White**

Sponsor: Anna Versluis, Geography

*Board Room, Session A*

“Declining Detroit: The Impact that Casinos have on the City’s Growth and Quality of Life”

**Greg Wiessner**

Sponsor: Judy Douglas, Peer Education & Chemical Health

*Board Room, Session B*

“Be U: A Comprehensive Wellbeing Assessment”

**Sydney Wigand**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session A*

“Re-evaluating Just War Theory to Apply It to the Twenty-First Century”

**Amanda Wood**

Sponsor: Eric Dugdale, Classics

*Board Room, Session B*

“Gender Performance in Aeschylus’ Tragedies and the Effects on Chorus-Character Interactions”

**Blia Xiong**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session A*

“Gender Violence in the Military”

**Kheng Xiong**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session B*

“China’s Military in the 21st Century”

**Danielle Yaste**

Sponsor: Mimi Gerstbauer, Peace Studies

*Board Room, Session A*

“Faith Based Organizations: Are They Effective?”

**Brian Zabel**

Sponsor: Ryan Bergstrom, Geography

*Board Room, Session B*

“Spatial Analysis of Viable Locations for Future Construction of Cabela’s Retail Stores”

# 2013 Sigma Xi Undergraduate Research Symposium

Sigma Xi is an international, multidisciplinary research society whose programs and activities promote the health of the scientific enterprise and honor scientific achievement. There are nearly 60,000 Sigma Xi members in more than 100 countries around the world. The Gustavus Adolphus Sigma Xi Chapter supports science by funding research grants, hosting an annual research symposium, and nominating student and faculty to become Sigma Xi members. The 2013 Sigma Xi Undergraduate Research Symposium is held in the Alfred Nobel Hall of Science during the afternoon and evening of Friday, May 3. Oral presentations (listed below) are scheduled in the afternoon and poster presentations are included in the Celebration of Creative Inquiry. The symposium also includes a ceremony to recognize this year's nominations for membership in Sigma Xi.

## **Amanda Adams**

Sponsor: Julie Bartley, Geology

“Oxygen Isotopic Analysis of Belemnites: Implications for Water Temperature and Life Habits in the Jurassic Sundance Sea”

## **Jeffrey Allen**

Sponsor: Laura Triplett, Geology

“Evaluating Trace Metal Contamination in an Abandoned Shooting Range”

## **Jake Bruihler**

Sponsors: Laura Triplett, Julie Bartley, and James Welsh, Geology

“Origins of a Terrace Feature in Seven Mile Creek Park, Minn.”

## **Dawn Comstock**

Sponsor: Sanjive Qazi, Biology

“The Impact of Innovation on Medical Education”

## **Michael DeLucia**

Sponsor: Laura Triplett, Geology

“Analyzing and Presenting Resistivity Data from Emerald Mound Archeological Site in Attempt to Discover a Mississippian Trail”

## **Amanda Feeks**

Sponsor: Lauren Hecht, Psychological Sciences

“The Effect of Color Contrast on Perception of Portion Size”

## **Daria Grishina**

Sponsor: Tom Gardner, Chemistry

“Towards a Novel Switchable Aromatic Hemiporphyrine Ligand”

## **Matt Illies**

Sponsor: Julie Bartley, Geology

“Using Condolites to Determine Depositional Variability within the Decorah Formation of Eastern Minnesota and Iowa”

## **Sarah Lucht**

Sponsor: Sanjive Qazi, Biology

“Identifying and Targeting Progenitors of Cancer Cells through Data-mining Cell Sorting Data”

## **Rachel Oien**

Sponsor: Laura Triplett, Geology

“Mapping Depth to Bedrock in a Tropical Pre-Montane Wet Forest”

## **Carl Schiltz**

Sponsor: Jeff Dahlseid, Biochemistry

“Identifying an mRNA Directly Degraded by the Exosome in *Saccharomyces Cerevisiae*”

## **Tara Selly**

Sponsor: Julie Bartley, Geology

“Qualitative and Quantitative Assessment of Taphonomic Patterns in Modern Algae and Cyanobacteria: Implications for Identifying Precambrian Microfossils”

## **Daniel Sinda**

Sponsor: Sanjive Qazi, Biology

“Instituting the Concept of Well-Being in Clients with Mental and Physical Instability and Disability”

## **Tran Tuan**

Sponsor: Brian O'Brien, Chemistry

“Nucleophilic Reactions of Potassium Phthaloylphosphide”

## **Zachary Wagner**

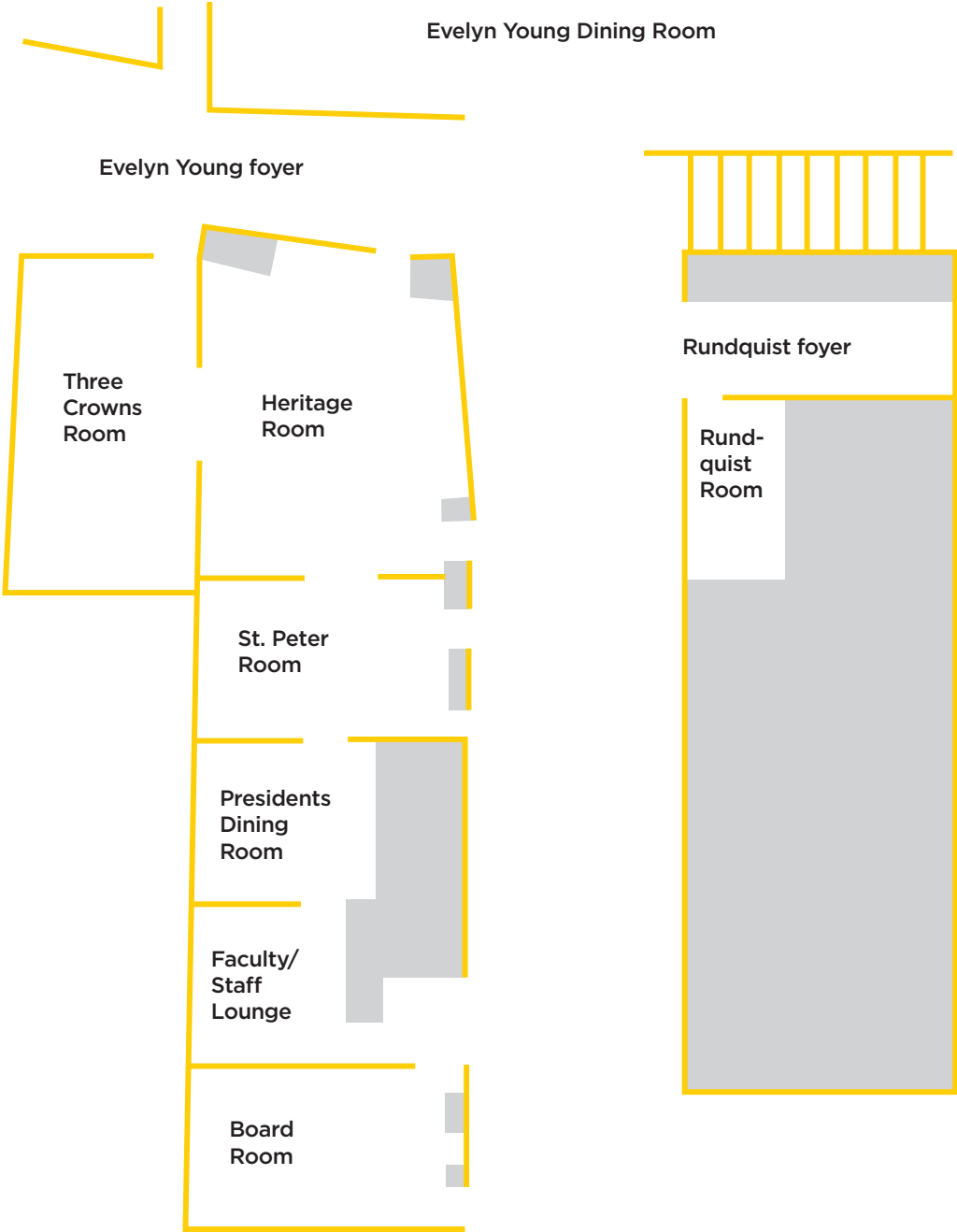
Sponsor: Laura Triplett, Geology

“A Comparison of Biogenic Silica Analysis Using UV-Vis and ICP-MS Methods”

# Session Locations and Times

Session A: 5–6 p.m.

Session B: 6–7 p.m.



# Honors Weekend Events

## FRIDAY, MAY 3

- 2:30–5 p.m. **Sigma Xi Research Symposium**  
Supported by the Provost's Office and the  
John S. Kendall Center for Engaged Learning  
*Alfred Nobel Hall of Science,  
Rooms 201 & 222*
- 3–5 p.m. **"Books in Bloom" Exhibition** (guided tours)  
Hosted by Gustavus Library Associates  
*Folke Bernadotte Memorial Library*
- 5–7 p.m. **"A Celebration of Creative Inquiry 2013"**  
A Showcase of Student Research,  
Scholarship, and Creative Work  
*C. Charles Jackson Campus Center*

## SATURDAY, MAY 4

- 9:30 a.m. **Coffee Reception**  
Hosted by Faculty Senate  
*Johns Courtyard (weather permitting) and  
Courtyard Café, Jackson Campus Center*
- 10 a.m.–  
6 p.m. **"Books in Bloom" Exhibition** (guided tours)  
Hosted by Gustavus Library Associates  
*Folke Bernadotte Memorial Library*
- 10:30 a.m. **Honors Convocation**  
Celebration service and recognition of honored students  
*Christ Chapel*
- 11:30 a.m. **Honors Day Luncheon Buffet** (ticket required)  
Reserved for all honored students and families  
*Evelyn Young Dining Room,  
Jackson Campus Center*
- 1 p.m. **Communication Studies Honors Reception**  
*Torrey Atrium,  
Warren & Donna Beck Academic Hall*
- 1–6 p.m. **Senior Art Majors' Exhibition 2013** (running May 4–June 2)  
Opening reception, 4–6 p.m.  
*Hillstrom Museum of Art,  
Jackson Campus Center*
- 1:30 p.m. **Senior Honors Recital 2013**  
*Jussi Björling Recital Hall*
- 1:30 p.m. **Political Science Research Symposium**  
Abstract presentations of student research projects  
*Old Main, Second Floor*
- 7:30 p.m. **Gustavus and Vasa Wind Orchestra Spring Concert**  
Douglas Nimmo and Karrin Meffert-Nelson, conductor  
*Jussi Björling Recital Hall*

## SUNDAY, MAY 5

- 10:30 a.m. **Service of Holy Communion**  
*Christ Chapel*
- 11 a.m.–  
4 p.m. **"Books in Bloom" Exhibition** (guided tours)  
Hosted by Gustavus Library Associates  
*Folke Bernadotte Memorial Library*
- 7 p.m. **"Night of Distinction"**  
Leadership, Service, and Achievement Honors  
*Alumni Hall,  
O.J. Johnson Student Union*