



Wartburg College's
RICE DAY

*Research, Internship, and
Creative Endeavor Day*

Thursday, April 12, 2018

PARENTS RECEPTION

Hagemann Castle Room, Saemann Student Center, 8-10 a.m.

STUDENT PRESENTATIONS

Campuswide, all day



RICE DAY

Wartburg College dedicates a day to recognize student achievements in and out of the classroom. Research, Internship, and Creative Endeavor (RICE) Day showcases academic and co-curricular pursuits across disciplines.

RICE Day is designed to:

- create a campus culture that celebrates academic excellence and rigor,
- foster awareness of and appreciation for a wide variety of student learning,
- provide a platform for students to share their knowledge and work, and
- inspire and educate the campus community, alumni, friends, and the general public.

RICE Day features poster sessions, oral and video presentations, readings, panel discussions, displays, art exhibits, and music performances.

RICE Day supports several goals of the college's strategic plan—lifting up the importance of deep and integrative learning, vocational discernment, mentoring relationships, and telling the Wartburg story.

A special thanks to the RICE Day Committee for planning this special event: Dr. Shawn Ellerbroek, chair; Dr. LeAnn Faidley; Carrie Gleason; Dr. Jennifer Larson; Sally Malcolm; Madison Simmons, student representative; Eric Sommermeyer; and Janeen Stewart.

Undergraduate research is made possible in part by a gift from Dr. Fero S. Menzel, vice president for academic affairs and dean of the faculty from 1999 to 2011.

Schedule by Department/Area

Alpha Chi

Research Endeavors by Members Open House, The W Hall of Champions 2:30-3:45 p.m.

Art

Student Displays, FAC Art Gallery (seniors) and FAC 114 All Day

Senior Presentations, FAC 114c 10-11:15 a.m.

Senior Art Exhibition and Opening Reception, FAC Art Gallery 7-9 p.m.

Athletics

Open Practices (baseball, golf, lacrosse, softball, tennis, track and field) 4-6 p.m.

Business Administration, Accounting & Economics

Senior Seminar in Business Presentations, WBC 117 8:30-9:45 a.m.

Economics Capstone and Research Paper Open House, WBC 117 10-11:15 a.m.; 1-2:15 p.m.

Advertising Campaign Client Presentations, WBC 217 1-2:15 p.m.

Center for Community Engagement

Wicked Problems Incubator Presentations, WBC 116 10-11:15 a.m.

Internships and Urban Studies Programs Open House, WBC 116 1-2:15 p.m.

Education

Iowa Professional Teaching Standards Portfolios/Electronic Portfolios, Reading Research, and Hawaii Student Teaching Open House, The W Hall of Champions 10-11:15 a.m.

Engineering Science

Engineering Design Showcase, The W Classrooms (East and Middle) 7-9 p.m.

English

EN 316 Shakespeare Course and Independent Research on Gender in Early Modern Literature Presentations, LH 324 10-11:15 a.m.

Panel Presentations (Poetry and Prose), LH 330 1-2:15 p.m.

German

German Culture Capstone Research Presentation, LH 333 2:30-3:45 p.m.

History

Historiography/Honors Research Seminar, CTC 200 10-11:15 a.m.

Historical Methods Course Research Presentations, CTC 200 2:30-3:45 p.m.

Intercultural Studies

Capstone Project Presentations, LH 329 1-2:15 p.m.

Journalism & Communication

Senior Capstone Documentaries, Neumann Auditorium 1:30-4 p.m.

Leadership Education

Experiential Learning Presentations, WBC 215 10-11:15 a.m.

Capstone Portfolio Open House, WBC 215 1-2:15 p.m.

Music

Music Education Capstone Poster Open House, FAC Lobby 8:30-9:45 a.m.

Ethnomusicology – Research in Ethnomusicology: Music Across Borders and Disciplines
Poster Open House, FAC Lobby 8:30-9:45 a.m.

Music Performance Lecture Recitals, FAC 104 (Orchestra Hall) 1-2:15 p.m.

A Tchaikovsky Anniversary Celebration, FAC Lobby 2:30-3:45 p.m.

Ensemble Open Rehearsals

Castle Singers, Chapel 3:45 p.m.

Wartburg Choir, Chapel 4:50 p.m.

Wind Ensemble, FAC 100 4:50 p.m.

Peace and Justice Studies

Envisioning Peace, Pursuing Justice Paper Presentations, LH 324 8:30-9:45 a.m.

Religion and Philosophy

Issues of Faith and Life Research Paper Presentations, LH 330 2:30-3:45 a.m.

Scholars Program

Senior Project Defenses, WBC 214 (Buckmaster) 8:30-9:45 a.m.; 10-11:15 a.m.; 1-2:15 p.m.

Social Entrepreneurship

Non-profit Management Client Pitch, WBC 117 2:30-3:45 p.m.

Social Sciences

Political Science, Psychology, and Sociology/Criminology/Criminal Justice: Open House/
Poster Session and Presentations, The W Hall of Champions and The W Classrooms 1-3:30 p.m.

Social Work

Field Education Symposium and Honors Presentations, The W Hall of Champions
and The W Hall of Fame Room 8:30-9:45 a.m.

Spanish

Latinx Talks (in Spanish), LH 326 10-11:15 a.m.; 1-3:30 p.m.

Capstone Roundtable Presentations, SSC 244 (Castle Room) 2:30-3:45 p.m.

STEM

Departments of Biology; Biochemistry, Chemistry & Engineering Science; Mathematics,
Computer Science, & Physics: Open House/Poster Session,
The W Hall of Champions 7-9 p.m.

Schedule by Time

Wednesday, April 11

5:30 p.m. Scholars Program: Senior Banquet (by invitation only)

Thursday, April 12

All day Art: Student Displays FAC Art Gallery (seniors) and FAC 114

8-10 a.m. Parents Reception (by invitation only)

8:30-9:45 a.m.

Business Administration, Accounting & Economics: Senior Seminar in Business Presentations WBC 117

Music: Music Education Capstone Poster Open House FAC Lobby

Music: Ethnomusicology – Research in Ethnomusicology: Music Across Borders and Disciplines Poster Open House FAC Lobby

Peace and Justice Studies: Envisioning Peace, Pursuing Justice Paper Presentations LH 324

Scholars Program: Senior Project Defenses WBC 214 (Buckmaster)

Social Work: Field Education Symposium and Honors Presentations The W Hall of Champions and The W Hall of Fame Room

10-11:15 a.m.

Art: Senior Presentations FAC 114c

Business Administration, Accounting & Economics: Economics Capstone and Research Paper Open House WBC 117

Center for Community Engagement: Wicked Problems Incubator Presentations WBC 116

Education: Iowa Professional Teaching Standards Portfolios/
Electronic Portfolios, Reading Research, and Hawaii Student Teaching Open House The W Hall of Champions

English: EN 316 Shakespeare Course and Independent Research on Gender in Early Modern Literature Presentations LH 324

History: Historiography/Honors Research Seminar CTC 200

Leadership Education: Experiential Learning Presentations WBC 215

Scholars Program: Senior Project Defenses WBC 214 (Buckmaster)

Spanish: Latinx Talks (in Spanish) LH 326

11:30 a.m.-12:45 p.m.

Lunch Den-Rittersaal, Konditorei, Mensa, Zesty Orange
 Scholarship Luncheon (by invitation only)

1-2:15 p.m.

Business Administration, Accounting & Economics: Advertising Campaign Client Presentations WBC 217
 Business Administration, Accounting & Economics: Economics Capstone and Research Paper Open House WBC 117
 Center for Community Engagement: Internships and Urban Studies Programs Open House WBC 116
 English: Panel Presentations (Poetry and Prose) LH 330
 Intercultural Studies Minor: Capstone Project Presentations LH 329
 Leadership Education: Capstone Portfolio Open House WBC 215
 Music: Music Performance Lecture Recitals FAC 104 (Orchestra Hall)
 Scholars Program: Senior Project Defenses WBC 214 (Buckmaster)

1-3:30 p.m.

Social Sciences – Political Science, Psychology, and Sociology/Criminology/Criminal Justice: Open House/Poster Session and Presentations The W Hall of Champions and The W Classrooms
 Spanish: Latinx Talks (in Spanish) LH 326

1:30-4 p.m.

Journalism & Communication: Senior Capstone Documentaries Neumann Auditorium

2:30-3:45 p.m.

Alpha Chi: Research Endeavors by Members Open House The W Hall of Champions
 German: German Culture Capstone Research Presentation LH 333
 History: Historical Methods Course Research Presentations CTC 200
 Music: A Tchaikovsky Anniversary Celebration FAC Lobby
 Religion and Philosophy: Issues of Faith and Life Research Paper Presentations LH 330
 Social Entrepreneurship: Non-profit Management Client Pitch WBC 117
 Spanish: Capstone Roundtable Presentations SSC 244 (Castle Room)

4-6 p.m.

Athletics: Open Practices (baseball, golf, lacrosse, softball, tennis, track and field)
 Music: Ensemble Open Rehearsals
 3:45 p.m. Castle Singers Chapel
 4:50 p.m. Wartburg Choir Chapel
 4:50 p.m. Wind Ensemble FAC 100

7-9 p.m.

Art: Senior Art Exhibition and Opening Reception FAC Art Gallery
 Engineering Science: Engineering Design Showcase The W Classrooms (East and Middle)
 STEM – Departments of Biology; Biochemistry, Chemistry & Engineering Science; Mathematics, Computer Science & Physics: Open House/Poster Session The W Hall of Champions

Sessions and Events

Wednesday, April 11

5:30 p.m. **Scholars Program: Senior Banquet (by invitation only)**

Thursday, April 12

All Day **Art: Student Displays** **Waldemar A. Schmidt Art Gallery (seniors)
and Bachman Fine Arts Center 114**

8-10 a.m. **Parents Reception (by invitation only)**

8:30-9:45 a.m. **Business Administration, Accounting & Economics:
Senior Seminar in Business Presentations** **Whitehouse Business Center 117**

Dr. Allan Bernard, assistant professor of business administration

Hunter Baldus	Rockwell Collins
Grace Byram	Amazon
Emily DeBoer	Meredith Corporation
Parker Hammel	Rockwell Collins
Jasie Whiting	Etsy
Zhanfei Xu	Goldman Sachs

Music: Music Education Capstone Poster Open House **Bachman Fine Arts Center Lobby**

Dr. Scott Muntefering, associate professor of music; Dr. Nicki Toliver, assistant professor of music

Tim Baird
Sight-Singing and the Independent Musician

Allison Coe
How Video Games Impact Student Learning in the K-8 Music Classroom

Britni Cohen-Wichner
Synesthesia: Use of Cross Modal Associations to Improve Musical Understanding

Hailey Franzen
When Music Becomes a Choice: Working with Deaf Students in American Instrumental Classrooms

Andrea Weiss
An Inclusive Classroom: A Guide to Assistive Technologies for Exceptional Populations

**Music: Ethnomusicology – Research in Ethnomusicology:
Music Across Borders and Disciplines Poster Open House**

Bachman Fine Arts Center Lobby

Dr. Paula Survilla, professor of music

Anna Broring

Liwaya – Come What May: Music and Education in Kenya

Madelyn Carlson

Linguistic Trends in and from Pop Punk Music

Christopher Hale

“Should We Do This?": A Look into Negotiating the Presentation of the African-American Spiritual in Choral Repertoires and a Guide to Ethical Performance of the Spiritual

Franzen Hailey

An Observation: The Cross Section of Mental Health, “Punk” Music, and Warped Tour

Samantha Hallgren

An Exploration of Music Therapy with Somalian Refugees in Minneapolis

Megan Offerman

The Crippling Fear: Performance Anxiety in the Music Realm

Lindsey Tufts

The Color of Sound

**Peace and Justice Studies: Envisioning Peace, Pursuing Justice
Paper Presentations**

Luther Hall 324

Dr. Kyle Schenkewitz, visiting assistant professor of religion

8:30 a.m. Rachel Perkins
Title IX Implementation on Small Liberal Arts College Campuses

8:55 a.m. Cassandra McClain
Sexual Assault on Iowa College Campuses

9:20 a.m. Esmeralda Alarcon
A Humanitarian Crisis in Syria

Scholars Program: Senior Project Defenses

Whitehouse Business Center 214 (Buckmaster)

8:30 a.m. Stephen Klaasen *Dr. Ed Westen, adviser*
Determination of the Just Noticeable Difference in Fastball Pitch Velocity and Application of Weber’s Law

8:50 a.m. Stephen Marak *Dr. Matthew Zart, adviser*
The Effects of Weak Lewis Acids on HPLC Peak Resolution of Sulforaphane and Sulforaphene

9:30 a.m. Rachel Pape *Dr. Zak Montgomery, adviser*
The Struggle for Chicana Identity: *Borderlands: La Frontera* and *The House on Mango Street*

**Social Work: Field Education Symposium
and Honors Presentations**

**The W Hall of Champions
The W Hall of Fame Room**

Dr. Tammy Faux, professor of social work; Lynn Peters, associate professor of social work

Honors Presentations

Phi Alpha Honor Society Induction

Destany Himschoot, Kaitlyn Kregel, Audrey List, Lauren Rupprecht

Outstanding Senior

Michelle Lackner

St. Elizabeth Award

Kennedy Haut

Field Fair

Student Research

Olivia Tangren

Dr. Tammy Faux and Dr. Daniel Sundblad, advisers

Respite Options Qualitative Evaluation

Senior Practicum

Herbert Brown

St. Frances Center – Denver, Colo. (Laura Kuhlmann)

Madysen Espeland

Allen Child Protection Center (Miranda Kracke)

Travone Gray

Iowa Department of Human Services (Melisa Lammers)

Maria Gonzalez

People's Clinic (Melissa Dunleavy)

Ariana Gremmels Olson

The Center at Lowry – Denver, Colo. (Anneliese Muhlbauer)

Kennedy Haut

Mount St. Vincent's Home – Denver, Colo. (Jessica Pfeiffer)

Jocelyn Keller

Allen Hospital (Anna Cullen)

Michelle Lackner

Black Hawk Grundy Mental Health Center (Tricia Naylor)

Andrea Leisinger

Mount St. Vincent's Home – Denver, Colo. (Jessica Pfeiffer)

Audrey List

9-5 – Denver, Colo. (Paula Smith Ordaz)

Yarinsy Torres

Lutheran Services in Iowa: Families Together (Samantha Soash)

10-11:15 a.m. Art: Senior Presentations

Bachman Fine Arts Center 114c

Barbara Fedeler, professor of art; Thomas Payne, professor of art

10:30 a.m. Suusan Ng Wan Jium

10:38 a.m. Suwana Mabangklu

10:46 a.m. Michael Benson

10:54 a.m. Makenzie Thorson

11:02 a.m. Mlungisi Ncube

**Business Administration, Accounting & Economics:
Economics Capstone and Research Paper Open House**

Whitehouse Business Center 117

Dr. Tamrat Gashaw, assistant professor of economics

Brayton Brandt

Price Elasticity of Demand of U.S. Stocks Before and After the Financial Crisis - Quantile Approach

Isaac Hatangimana

Impact of Automation on the Economy: Cases of Self-driving Cars & Insurance; Robotics and Unemployment

Seth Jobes-Ryan

Price Volatility of Bitcoin

Sarah Mirs

Economic Recovery in Former USSR States

Thomas Schiffer

Health Insurance in the United States

Nicholas Waterhouse

The Impact of Recession on Child Poverty in Iowa

Zhanfei Xu

Determinants of Consumption in China

Joseph Zittergruen

Stock Market Returns and Weather

**Center for Community Engagement: Wicked Problems
Incubator Presentations**

Whitehouse Business Center 116

10 a.m.	Joe Freiburger, Kylie Kelchen	Health Points
10:15 a.m.	Grant Kincaid, William McDonald, Sam Nettleton	The Save Erator
10:30 a.m.	Collins Kalyebi	Heritage Kit Pad
10:45 a.m.	Ashley Reynolds	BioBucks
11 a.m.	Madison Bloker	Bound Blessings

**Education: Iowa Professional Teaching Standards Portfolios/
Electronic Portfolios, Reading Research, and Hawaii Student Teaching Open House**

The W Hall of Champions

Reading Research

Natalie Peyton

Dr. Stephanie TeKippe, adviser

Perceptions of an Open Classroom Design

Liz Roby-Miklus

Dr. Kelly Faga and Dr. Stephanie TeKippe, advisers

Teacher Perceptions of African-American Vernacular English Use in the Classrooms: A K-12 Study

Student Teaching

Mara Forsyth
Student Teaching Island Style

Dr. Kelly Faga, adviser

Teaching Portfolios

Emily Carroll, Sarah Grabowski, Abby Singleton

Electronic Portfolio

Caria Philgreen

Dr. Stephanie TeKippe, adviser

English: EN 316 Shakespeare Course and Independent Research on Gender in Early Modern Literature Presentations

Luther Hall 324

Dr. Rachel Clark, associate professor of English

- 10 a.m. Abby Klug
Spenser's Wonder Woman: Amazons in Book V of the *Faerie Queene*
- 10:15 a.m. Lizzy Blough
The Queenship of Shakespeare's *Tamora*
- 10:30 a.m. Megan Newbrough
The Tragedy of Daughters and Their Dominating Fathers
- 10:45 a.m. Jordyn MacDonald
Poison and Effeminacy in *Hamlet* and *Romeo and Juliet*

History: Historiography/Honors Research Seminar

Classroom Technology Center 200

Dr. Terry Lindell, professor of history; Dr. Erika Lindgren, associate professor of history

Stephanie Dunbar
Maintenance and Change of Mental Health Institutions in America: An Iowa Example

Coen Brown
George Custer and the Battle of the Little Bighorn

Alviann Jordan
Reconstruction Historiography

Leadership Education: Experiential Learning Presentations

Whitehouse Business Center 215

Ayo Adebayo, Diane Delgado, Jenna Holtz, Brandon Prine, Clay Weltha *Dr. Fred Waldstein, adviser*
Demonstrating Leadership through Community Emergency Response Team (CERT) Training

Morgan Finch, Mackenzie Funke, Tyler Johnsrud, Ty Putschio *Dr. Fred Waldstein, adviser*
Demonstrating Leadership through Retrieving Freedom Incorporated (RFI)

Allison Hesse, Alexis Kuehl, Melissa Meyer *Ashley Lang, adviser*
Community Builders: Transforming Leadership Theory into Practice

Jenna Brannaman, Timmery Foster, Michelle Hahn, Hailey Schmitz
Character and Leadership Development: Experiences and
Perspectives Associated with Attending a USAFA Leadership Conference

Ashley Lang, adviser

Scholars Program: Senior Project Defenses

Whitehouse Business Center 214 (Buckmaster)

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| 10 a.m. | Madalynn McKelvey
Preferred Leadership Frameworks in Engineering Teams | <i>Dr. Daniel Black, adviser</i> |
| 10:20 a.m. | Michael Johnsrud
The Co-Localization of Prohibitin-1 and Prohibitin-2 on Estrogen Receptor Alpha in
MCF-7 and SKBR-3 Breast Cancer Cells | <i>Dr. Keith McClung, adviser</i> |
| 10:40 a.m. | Amy Isvik
Lost Cities: An Exercise in Machine Learning | <i>Dr. John Zelle, adviser</i> |
| 11 a.m. | Mokgari Aphane
Investigation of Characteristics of Orphan G-Protein
Coupled Receptors in the Class-C Family | <i>Dr. Jay Garaycochea, adviser</i> |

Spanish: Latinx Talks (in Spanish)

Luther Hall 326

Dr. Thom Boerigter, professor of Spanish

Jezel Cabrera

Stuck in Between

Jaquelyn Garza

You Get What You Give

María Munguia

How I Became *la Bollía*

Gema Villanueva

Who I Am is Still a Work in Progress

11:30 a.m.-12:45 p.m.

Lunch

Please enjoy lunch at any of the following campus venues: Den-Rittersaal (Saemann Student Center), Konditorei (Vogel Library), Mensa (Saemann Student Center), Zesty Orange (The W)

Scholarship Luncheon (by invitation only)

1-2:15 p.m.

***Business Administration, Accounting & Economics:
Advertising Campaign Client Presentations***

Whitehouse Business Center 217

Kimberly Folkers, associate professor of business administration

Amit Bharam, Corbin Brungard, Clint Kannegieter, Ben Sass
Waverly Golf Course Advertising Campaign 1

Ayo Adebayo, Cory Brannaman, Paul Koebke-Barsic, Sulibeth Velez
Waverly Golf Course Advertising Campaign 2

Nicole Adair, Megan Cowherd, Jillian Huser, Trevor McLaughlin
Waverly Golf Course Advertising Campaign 3

Jerod Ballhagen, Mitch Black, Brandon Prine, Kaleb Noel
Waverly Golf Course Advertising Campaign 4

Hunter Baldus, Reid Mathis, Ashlyn Moen, Jenna Winter
Waverly Country Club Advertising Campaign 1

Colby Hansen, Mitch Longcor, Evan Sprung, Gavin Timp
Waverly Country Club Advertising Campaign 2

Naomi Alene, Janae Conley, Jakeena McKay
Waverly Country Club Advertising Campaign 3

Bo Bader, Bre Bader, Megan Murphy, Miranda Murphy
Waverly Country Club Advertising Campaign 4

***Business Administration, Accounting & Economics:
Economics Capstone and Research Paper Open House***

Whitehouse Business Center 117

Dr. Tamrat Gashaw, assistant professor of economics

Dunim Ariunbold
The Effect of CO₂ on the Mongolian Economy and Environment (Kuznet curve hypothesis)

Samuel Brooks
The Effect of Recessions on Hospitals and Nurse Employment

Tapiwa Chimanye
Impact of Bilateral Trade on Some African Countries

Sameeullah Jung
Microfinance and Islamic Finance

Teboho Mohloai
The Impact of Income Inequality on Growth

Michael Zhang
The Effects of Unemployment Insurance Claims on the Unemployment Rate

**Center for Community Engagement:
Internships and Urban Studies Programs Open House**

Whitehouse Business Center 116

Jo Dorrance, internship coordinator

Wartburg West

Ian Coon	Open Media Foundation
Mason McMillan	Nostalgic Homes Realty
Maria Munguia	Ronald McDonald House
Megan Stephenson	Boys & Girls Club Metro Denver

Internships

Alexis Bodzioch	Wartburg Marketing & Communication
Brady Heusinkvelt	State Bank of Waverly
Todd Greer	Hope Community Resources
Kailee O'Brien	Comedy Works

English: Panel Presentations (Poetry and Prose)

Luther Hall 330

Dr. Amy Nolan, professor of English

Rebecca Buchanan	Poetry
Alex Glascoe	Poetry
Morgan Riedesel	<i>Hello (Anxiety)</i> (poetry)
Lauren Yuska	<i>The Blood Beneath My Skin</i> (fiction)

Intercultural Studies Minor: Capstone Presentations

Luther Hall 329

Dr. Joyce Boss, professor of English

Abdulrahman Aldarwish, Abdalaziz Altoem, Molly Astarita, Madelyn Carlson, Sneha Mahapatra, William McDonald, Rachel Pape

Leadership Education: Capstone Portfolio Open House

Whitehouse Business Center 215

Dr. Fred Waldstein and Dr. Daniel Kittle, advisers

Tyler Lutes, Ben Ntakirutimana, Dan O'Brien, Rachel Perkins, Meghan Silbernagel

Music: Music Performance Lecture Recitals

Bachman Fine Arts Center 104 (Orchestra Hall)

Garrett Arensdorf, tuba
Britni Cohen-Wichner, clarinet
Scott Eiklenborg, percussion

Samantha Hallgren, soprano

Maddie McKelvey, soprano

Aaron O'Leary, piano

Scholars Program: Senior Project Defenses

Whitehouse Business Center 214 (Buckmaster)

- 1 p.m. Amanda Wright *Dr. Stephanie Toering Peters, adviser*
Locomotor Activity in *Drosophila Melanogaster* Larvae with Varying Calmodulin Levels
- 1:20 p.m. Ashley Anderson *Dr. Shawn Ellerbroek, adviser*
Co-localization of XPLN with PSD-93 and PSD-95 in Differentiated PC12 Cells
- 1:40 p.m. Cassandra Smith *Dr. Shawn Ellerbroek, adviser*
CRISPR Mediated Knock-out of Matrix Metalloproteinase-9 in Ovarian Cancer Cells
- 2 p.m. Natalie Peyton *Dr. Rick Snyder, adviser*
The Impact of Passion Based Learning in Schools

1-3:30 p.m.

**Social Sciences: Psychology and Sociology
Open House/Poster Session**

The W Hall of Champions

Advanced Research Methods Course Posters

Dr. Shaheen Munir, professor of psychology

Dragoslava Barzut

Cross-cultural Comparisons of Underlying Factors in Mental Health and Treatment-Seeking Attitudes

Tyler Davis

Interruption Frequency and Stress: Role of High and Low Stakes Tasks

Tahjae Handy

College Students' Academic Performance: The Role of Family Support

Olivia McAtee

Perceptions of Crime Severity and Penalties as a Function of Offender Characteristics

Dean Pieper

Modeling of Alcohol Consumption and Attitude: The Mediating Role of Personality

Dr. Cynthia Bane, professor of psychology

Abbey Bond

The Relationships Among Socioeconomic Status, the Principle of Care, and Helping Behavior in Urban, Suburban, and Rural settings

Hannah Doyl

The Effects of Relationship Type on Collaboration Inhibition

Evan Larson

Personality Traits, Social Support, and Burnout in First/Multi-Generation Students

Elizabeth Lyke

The Effects of Music and Images on Nostalgia and Reminiscing Among Older Adults

Kavalyn Wilson

The Relationships Among Alcohol Use, Motives for Alcohol Use at Different Ages, and Loneliness

Dr. Andrea Eslick, assistant professor of psychology

Samantha Braundmeier

The Effect of Sleep on the Recollection of False Memories

Breanna Hanson

Cognitive Performance & Physical Activity in College Students

Brooke Huffaker

Factors Affecting Perceptions of Psychological Disorders

Beth Mallon

The Role of Collaboration in Solving Insight Problems

Brice Duhe'

The Effect of Conflict on the Attribution of Blame

Elizabeth Lockwood

Case Workers' Satisfaction Levels with Privately and Publicly Funded Foster Care Institutions

Independent Research Course Poster

Dr. Todd Reiher, professor of psychology

Sabah Munir

Gender Differences in Math Attitudes and Math Anxiety Among College Students

Qualitative Research Methods Course Posters

Dr. Daniel Sundblad, associate professor of sociology

Benjamin Coleman

The Effects of Study Abroad on Students Perceptions on Culture

Bryan Grubb

Popular Criminals: A Content Analysis of Representations of Crime and Criminals Within Law and Order and Dateline

Gabrielle Hunt

Content Analysis of the Media's Portrayal of Post-Traumatic Stress Disorder

Colin Jacobs

The Causes of Happiness: An Examination of Happiness in College Students

Nicole Johnson

Gender Socialization in Clothing

Olivia McAtee

An Analysis of Crime Victims' Rights

Destiny Northey
Autism and Deviance in Popular Media

Leisel Reimers
The Portrayal of Female Police Officers in Fictional Media

Ryan Richmond
Perceptions of Male Athletes Who Seek Psychological Help

Charles Riley
Perceptions of Academic Performance Among African-American Male Athletes

Olivia Tangren
The Impact of In-Home Respite Care on Foster Families

1-3:30 p.m.

***Social Sciences: Political Science, Psychology, and
Sociology/Criminology/Criminal Justice Presentations***

The W Classrooms

International Relations Presentations

The W Classrooms (East and Middle)

27th Annual Midwest Political Science Undergraduate Research Conference, April 2018

Dr. Bret Billet, professor of political science

1 p.m. Emily Bingham
Factors that May Affect Female Genital Mutilation in Africa

1:20 p.m. Eric DeVos
Deliverance or Damage? The Effects of Foreign Aid on the Duration, Intensity, and
Death Toll of Civil War

1:40 p.m. Nick Schwake
The Impact of Political Globalization on Economic Development

Advanced Research Methods Course Presentations

The W Classrooms (East and Middle)

2 p.m. Amy Brant *Dr. Andrea Eslick, adviser*
Promoting Health in the Workplace: The Influences of Booster Breaks on Job Satisfaction

2:15 p.m. Zach Lamphere *Dr. Andrea Eslick, adviser*
Tunnel Vision & Running into a Wall: The Effects of Disfluency on Confirmation Bias

2:30 p.m. Lola Vafaeva *Dr. Andrea Eslick, adviser*
Determinants of Current Psychological Well-being:
The Impact of Childhood Coping Style

2:45 p.m. Emily Meeker *Dr. Cynthia Bane, adviser*
Gender and Perceived Obstacles to Educational Attainment and Early Career Success

Juvenile Justice Presentations

The W Classroom (West)

Dr. Brian McQueen, assistant professor of sociology/criminology/criminal justice

- 1 p.m. Caitlin Ryan, Joshua Feirer, Charles Riley, Hunter Gunderson
Full Court Press: A New Interpretation of Our Juvenile Court System
- 1:25 p.m. Courtney Coleman, Kiersten Keller, Bailey Lambert, Malachi Gleason
From School Halls to Prison Walls: How Mentorship and After-School Programs in
Elementary Schools Decrease Likelihood of Incarceration

Policy Formulation, Administration, and Analysis Presentations

The W Classroom (West)

Dr. Fred Waldstein, professor of political science

- 2:30 p.m. Trevor Hurd
Mass Shootings and their Impact on Gun Laws
- 2:45 p.m. Nicholas Schwake
Campaign Finance

Conference Presentations

Midwestern Psychological Associate annual meeting, April 2018

- Emily Christianson *Dr. Shaheen Munir, adviser*
The Role of Smartphone Usage on Depression and Addiction
- Kierstin Keller *Dr. Shaheen Munir, adviser*
Influences on STEM Interest among Middle School and College Students
- Ryan Richmond *Dr. Shaheen Munir, adviser*
Individualism-Collectivism: Its Relationship to Help-Seeking and Mental Health Stigma

CSBS Student Research and Engagement Conference, April 2018

- Ryan Richmond *Dr. Shaheen Munir, adviser*
The Effects of Psychoeducation and Gender on Mental Health Stigma and Help-Seeking
- Morgan Riedesel *Dr. Shaheen Munir, adviser*
Students' Evaluation of Articles: The Possibility of a Gender Bias

Midwest Sociological Society annual meeting, March 2018

- Olivia McAtee *Dr. Brian McQueen and Dr. Daniel Sundblad, advisers*
An Analysis of Crime Victims' Rights
- Destiny Northey *Dr. Brian McQueen and Dr. Daniel Sundblad, advisers*
Autism and Deviance in Popular Media
- Liesel Reimers *Dr. Brian McQueen and Dr. Daniel Sundblad, advisers*
The Portrayal of Female Police Officers in Fictional Media

Ryan Richmond *Dr. Brian McQueen and Dr. Daniel Sundblad, advisers*
Portrayal of Mental Illness on Popular Television

Olivia Tangren *Dr. Brian McQueen and Dr. Daniel Sundblad, advisers*
The Impact of In-Home Respite Care on Foster Families

Association for Psychological Science Annual Convention, May 2018

Sabah Munir *Dr. Todd Reiher, adviser*
Gender Differences in Math Attitudes and Math Anxiety Among College Students

27th Annual Midwest Political Science Undergraduate Research Conference, April 2018

Emily Bingham *Dr. Bret Billet, adviser*
Factors that May Affect Female Genital Mutilation in Africa

Eric DeVos *Dr. Bret Billet, adviser*
Deliverance or Damage? The Effects of Foreign Aid on the Duration,
Intensity, and Death Toll of Civil War

Nick Schwake *Dr. Bret Billet, adviser*
The Impact of Political Globalization on Economic Development

Spanish: Latinx Talks (in Spanish)

Luther Hall 326

Dr. Thom Boerigter, professor of Spanish

Yecenia Andrade
Un Mundo Multicultural

Brooke González
Me, Myself and I Against the World

Abram Hernández
Yo...

Jose Inocencio
It's Different

Daniel Inzunza
De Dos Mundos, A Story of Two Worlds

Shaila Vera
A Conquistar el Mundo

1:30-4 p.m.

Journalism & Communication: Senior Capstone Documentaries

Neumann Auditorium

Dr. Penni Pier, professor of journalism & communication

1:30 p.m. *Campuses in Crisis: State of Private Higher Ed in Iowa* *New Wave Films*
William Coonradt, Jasmyne Jones, Alexis Kemp, Jillian King, Cody Snider

2 p.m.	<i>Bonnie Campbell: Innovator in Iowa, Leader for the Nation</i> Megan Burke, Marisa Falco, McKenzie Kielman, Kaz Onoo, Allison Stahmer, Aubree Taylor	Epoch Films
2:30 p.m.	<i>When They Return</i> Miranda Fober, Alyssa Hewitt, Megan Offerman, Reginald Prather, Jenna Winter	Spotlight Films
3 p.m.	<i>Game Changer: The Heidi Soliday Story</i> Tyler French, Michelle Johnson, Matt Kerns, Samuel Sides, Alexandra Stoffregren, Maya Weatherall	Fire Side Studios
3:30 p.m.	<i>Iowa Nice: Immigration in the Heart of America</i> Paul Bossua, Alyssa Edwards, Adeboye Olaniyan, Molly Savage, Bailey Strait	Gestalt Films

2:30-3:45 p.m. Alpha Chi: Research Endeavors by Members Open House

The W Hall of Champions

Dr. Rachel Clark, honor society adviser

Nicholas Arp
The Phosphorylation of XPLN via PKC-Alpha

Dr. Shawn Ellerbroek, adviser

Nicole Burgin, Emma Friedly
Possible Muscle Defects in *Drosophila* Due to Prospero Knockdown

Dr. Stephanie Toering Peters, adviser

Emily Capper
The Co-Localization of XPLN with PSD-93 and PSD-95 in Differentiated PC12 Cells

Dr. Shawn Ellerbroek, adviser

Mary Kate Hines
Eye-Brain Coordination in Music Comprehension

Dr. Craig Hancock, adviser

Abby Klug
Spenser's Wonder Woman: Amazons in Book V of the *Faerie Queene*

Jordyn MacDonald
Poison and Effeminacy in *Hamlet* and *Romeo and Juliet*

Rachel Pape
The Struggle for Chicana Identity: *Borderlands: La Frontera* and *The House on Mango Street*

Kimberly Schlesinger
Performance and Research – *Suite for Piano* by Norman Dello Joio

Lola Vafaeva
Determinants of Current Psychological Well-being: The Impact of Childhood Coping Style

Dr. Andrea Eslick, adviser

German: German Culture Capstone Research Presentation

Luther Hall 333

Yvonne Losch, assistant professor of German

Erin Henderson
The Effects of the German Language on German Society through
Examples of Noteworthy German Figures

History: Historical Methods Course Research Presentations Classroom Technology Center 200

Dr. Terry Lindell, professor of history

Will Goettl

Kathryn Koob: A Unique Experience During the 1979 Iranian Hostage Crisis

Trevor Hurd

The Iowa Civilian Conservation Corps

Madison Simmons

The Stonewall Inn Riots

Music: A Tchaikovsky Anniversary Celebration

Bachman Fine Arts Center Lobby

Dr. Suzanne Torkelson, professor of music

Anna Baldwin, Mattie Barr, Hugh Brown, Nora Brown, Greta Christiansen, Natalie Henriksen, John Hoehn, Kyle Hoffman, Kimberly Schlesinger, Emily Schmidt, Nathan Stephany, Courtney Stucker, Carly Van Keulen

**Religion and Philosophy: Issues of Faith and Life
Research Paper Presentations**

Luther Hall 324

Dr. Kyle Schenkewitz, visiting assistant professor of religion

2:30 p.m. Rebecca Bennett A Funeral for Death

2:55 p.m. Kathryn Linthicum Dear Church, Black Lives Matter

3:20 p.m. Blake Shipman Learning to Cherish the Old Rugged Cross: A Literary Analysis of Three Women from Diana Butler Bass' Christianity after Religion and a Call to Live a Theology of the Cross Led Life

Social Entrepreneurship: Non-profit Management Client Pitch Whitehouse Business Center 117

Dr. Emmalinde Roelofse, visiting assistant professor of business administration

Elizabeth Falconer, Arial Hall, Ramsey Kock, Bailee Wallace

Spanish: Capstone Roundtable Presentations

**Saemann Student Center 244
(Hagemann Castle Room)**

Dr. Zak Montgomery, associate professor Spanish

Riley Anderson

How the Catholic Church was Essential to Franco's Regime

Katherine Bomgaars

Challenges of Latino Ministry in the United States

Madelyn Carlson

¿Quién am I?: Identity Formation in Bilingual Students

Saeed Halim

The Myth of Racial Equality: An Exploration of Afrolatino Identity in Cuba and Brazil during the Post Emancipation Period

JulieAnna Olague

“Spanglish”: Taking a Linguistic Approach to Cultural Identity

Rachel Pape

Feminism in the Salta Trilogy of Lucrecia Martel

4-6 p.m.

Athletics: Open Practices: Baseball, Golf, Lacrosse, Softball, Tennis, Track and Field

Various Locations

Music: Ensemble Open Rehearsals

3:45 p.m. Castle Singers Chapel

4:50 p.m. Wartburg Choir Chapel

4:50 p.m. Wind Ensemble Bachman Fine Arts Center 100

7-9 p.m.

Art: Senior Art Exhibition and Opening Reception

Waldemar A. Schmidt Art Gallery

Engineering Science: Engineering Design Showcase

The W Classrooms (East and Middle)

Dr. LeAnn Faidley, associate professor of engineering science

Noah Dahlstrom, Troy Heick, Tony Anstoetter, Hunter Sabers
Engineering Design: RFI Game Table

Amirhossein Matoufiazar, Taha Al-azzawi, Tapiwa Chimanye
Engineering Design: iLift

Morgan Neuendorf, Madison Thomas, Jay Tegge, Jeremy Ellerby
Engineering Design: Automated Fish Feeder

Grant Gage, Jakob Hamilton, Madalynn McKelvey
Engineering Design: Neumann Auditorium Piano Storage

Autin Bohling, Blake Mahoney, Tanner Eckhart, Ty Puchio
Engineering Design: BATT

Cal Tauber, Erica Countryman, Dillon DeMott, Riley Anderson
Engineering Design: Aquaponics Drain and Clean Reconstruction

Nathan Brown, Emma Fuhs, Clay Henning, Payton Hilby
Engineering Design: Adjustable Activities Table

Alex Babcock, Hayk Hakobyan, Collin Jund, Mo Yang
Engineering Design: Austina Automated Grinder

Daniel Luzindya, Mitchell Mohlis, Will Versteegh
Intro to Engineering Design: Rice Drier

Tyler Schager, Brett LaDouz, Jacob Buchheim, Jean Hakizimana
Intro to Engineering Design: Water Collection in Rwanda

Biology, Neuroscience, Public Health, and Environmental Science & Studies

- Benjamin Cuvelier *Dr. Michael Bechtel, adviser*
Re-Introduction of Birds to Northeast Iowa
- Makgari Aphane, Mohammed Mohammed, Sabah Munir *Dr. Jay Garaycochea, adviser*
Investigation of Characteristics of Orphan G-Protein Coupled Receptors in the Class-C Family
- Jared Schulz, Ryan Yoder *Dr. Michaeleen Golay, adviser*
Comparison of Biological and Chemical Fertilizers to Promote Echinacea Growth
- Madeline Kemp, Joel Topping *Dr. Michaeleen Golay, adviser*
Effects of Different Fertilizer Methods on Nitrate Concentration in Roots and Leaves of Beets
- Jakub Rys, Abram Hernandez, Bryce Origer *Dr. Michaeleen Golay, adviser*
Effects of Dawn(R) Dish Soap on the Degradation of Oil Hydrocarbons by *Alcanivorax borkumensis*
- Johanna Kluck, Teylor Jones, Hailey Schmitz *Dr. Michaeleen Golay, adviser*
Seasonal Variation of Leaf Morphology in *Hydrophyllum virginianum*
- Maria Brown, Aryn Jones, Sarah Schwarz *Dr. Samantha Larimer Bousquet, adviser*
Anxiety Fluctuates Across Golden Syrian Hamsters' Estrous Cycle
- Alexa Schmitz, Alexandra Petersen, Diane Delgado *Dr. Samantha Larimer Bousquet, adviser*
Early Weaning as a Model of Early Life Adversity in C57BL/6NHsd Mice
- Monica Crawford, Riley Woods *Dr. Samantha Larimer Bousquet, adviser*
Social Enrichment Differentially Affects Anxiety in Males and Females
- Erin Anderson, Madison TeKippe, Colby Williams *Dr. Samantha Larimer Bousquet, adviser*
Effects of Repeated Testing in the Elevated Plus Maze
- Elizabeth Lockwood, Kaitlyn McGarvey, Karolina Paulsen, Tyler Johnsrud *Dr. Keith McClung, adviser*
Co-Localization of Prohibitin 1 and 2 on Estrogen Receptor Alpha
- Caleb Hanson, Carter Ross *Dr. Keith McClung, adviser*
Expression of P-Glycoprotein for MCF-7 and SKBR-3 Cells in Response to Tamoxifen Treatment
- Claire Blake, Elle Gadiant, Chris Nicolet *Dr. David McCullough, adviser*
Role of Prairie Characteristics in Determining Lepidopteran Presence in Iowa Grasslands
- Alissa Oswald, Kenzie Soukup, Kelsey Kellogg, Sierra Lovato *Dr. Jose Reyes-Tomassini, adviser*
Exposure to Sub-lethal Levels of Copper does not Suppress the Ability of *Danio rerio* to Detect an Aversive Odorant
- Cole Martin, Andrew Linkletter *Dr. Patricia Storlie, adviser*
Expression of Major Surface Protease in *Leishmania tarentolae*
- Brittney Fuller, Alicia Urbain *Dr. Patricia Storlie, adviser*
CRISPR-Cas9 Plasmid for gp63 in *L. tarentolae*
- Nathan Keck, Nicholas Sterner, Rebecca Waldman *Dr. Patricia Storlie, adviser*
Isolation of *Pogona vitticeps* Macrophages

Mallory Weaver, Amanda Wright, Cody Birely *Dr. Stephanie Toering Peters, adviser*
Locomotor Activity in *Drosophila melanogaster* Larvae with Varying Calmodulin Levels

Miranda Buchholz, Gabrielle Marchino, Haley Melz, Betsy Duehr *Dr. Stephanie Toering Peters, adviser*
Decreased Potassium Channel Expression Alters Response to Ethanol in *Drosophila*

Colton Brown, Nicole Burgin, Emma Friedly *Dr. Stephanie Toering Peters, adviser*
Possible Muscle Defects in *Drosophila* Due to *Prospero* Knockdown

Carter Ross, Caleb Hanson, Sara Ashar *Dr. Edward Westen, adviser*
Analysis of Capsaicin Concentration in 20 Varying Species of Capsicum

Public Health

Madeline Kemp *Dr. Lorinda Sheeler, adviser*
Assessing the Health Needs of Bremer County: A Systematic Approach to Identifying Health Inequalities

Alex Hohensee *Dr. Lorinda Sheeler, adviser*
The Mile High Truth of Medical Marijuana: The Connection between THC and CBD

Mokgari Aphane *Dr. Lorinda Sheeler, adviser*
Determinants of Reproductive Health in Bremer County

Cody Lauritsen *Dr. Lorinda Sheeler, adviser*
A Shot in the Arm: Analyzing Vaccination Rates in Bremer County

Biochemistry, Chemistry & Engineering Science

Biochemistry

Ashley Anderson, Emily Capper, Nate Woeste *Dr. Shawn Ellerbroek, adviser*
The Co-localization of XPLN with PSD-93 and PSD-95 in Differentiated PC12 Cells

Candace Baker, Grant Gingerich, Cassandra Smith *Dr. Shawn Ellerbroek, adviser*
CRISPR-Mediated Knockout of Matrix Metalloproteinase-9 in Ovarian Cancer Cells

Nicholas Arp, Ethan Lemke *Dr. Shawn Ellerbroek, adviser*
The Phosphorylation of XPLN via PKC Alpha

Chemistry

Munkhsanaa Erdenegerel, Nicholas Sedore *Dr. Matthew Zart, adviser*
Exploring The Existence of Putative Co(IV)-oxo Species

Nathan Stumme, Nick Sedore *Dr. Matthew Zart, adviser*
Co(II) Metal Ion Complexes of tapa with Exogeneous Ligands Bound in the H-Bonding Pocket

Mathematics, Computer Science & Physics

Computer Science

Dominique Miller Oscars by the Numbers	<i>Dr. John Zelle, adviser</i>
Beni Ntakirutimana, Clifton Brown A Web Application for an Innovation and Mutation Simulation Game	<i>Dr. John Zelle and Dr. Edward Westen, advisers</i>
Amy Isvik Lost Cities: An Exercise in Machine Learning	<i>Dr. John Zelle, adviser</i>
Frank Ntwari A Raspberry Pi Based Console for CS120 Game-projects	<i>Dr. John Zelle and Dr. Charles Figura, advisers</i>
Joe Chamberlain, Caleb Geer Interactive Touch Table Design and Applications	<i>Dr. John Zelle, adviser</i>
Nathan Frana Grain Monitoring System	<i>Dr. John Zelle, adviser</i>
Farai Gandiya Virtual Jo, The Handy MCSP Helper	<i>Dr. John Zelle, adviser</i>
Annie Lammers Web Based Reservation Application	<i>Dr. John Zelle, adviser</i>

Mathematics

Sam Brooks The FedEx Problem and the Center of the United States	<i>Dr. Brian Birgen, adviser</i>
Johanna Ender Musical Maximally Even Sets	<i>Dr. Brian Birgen, adviser</i>
Madalynn McKelvey Mathematical Models for Current and Projected Global Mean Sea Level Rise	<i>Dr. Brian Birgen, adviser</i>
Tom Schiffer American Roulette: A Gambler's Ruin	<i>Dr. Brian Birgen, adviser</i>

Physics

Codey Olson A Study of Magnetic Induction Braking: Modeling the Dependence of Terminal Velocity on Pipe Wall Thickness	<i>Dr. Ben Bousquet, adviser</i>
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Wartburg College

Wartburg College traces its roots to 1852, when Pastor Wilhelm Löhe of Neuendettelsau, Bavaria, sent Georg Grossmann and five students to found a teacher-training school for German immigrants in Saginaw, Mich. The college moved several times before making its permanent home in Waverly in 1935.

The college is named after the Wartburg Castle in Eisenach, Germany. A center of art and culture during the Middle Ages, the castle was home for St. Elizabeth in the 13th century and a refuge for Martin Luther during the stormy days of the 16th-century Reformation. The castle is a frequent destination for students and alumni, and a formal agreement between the college and the Wartburg Castle Foundation provides ongoing academic and cultural exchanges between Eisenach and the Wartburg campus. Waverly and Eisenach are Sister Cities, further strengthening the bonds between the two communities.

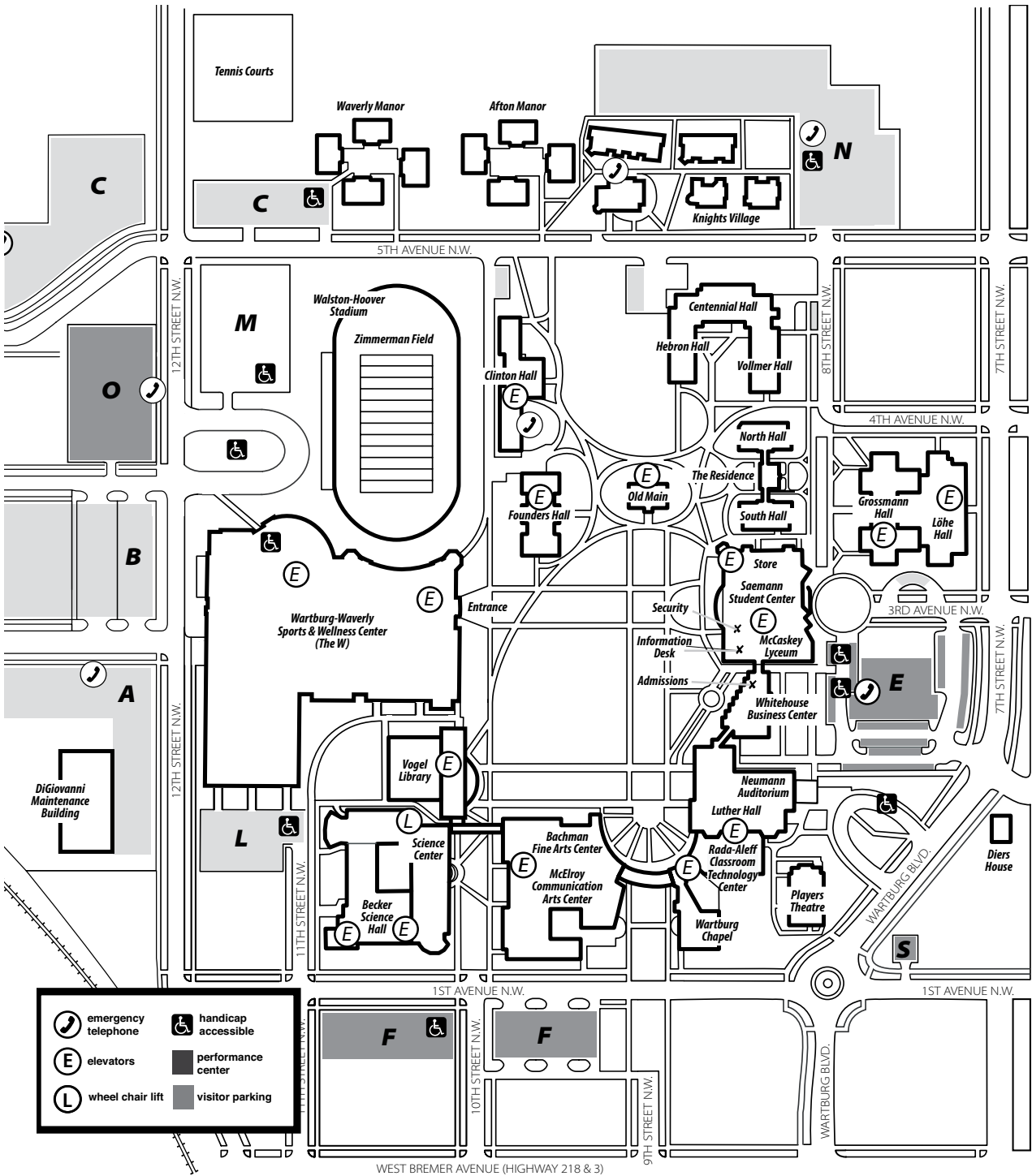
Wartburg's 2017-18 enrollment of 1,527 includes students from 30 U.S. states and 55 countries. Dedicated to challenging and nurturing students for lives of leadership and service, the college is characterized by vigorous academic expectations within an environment of strong personal support.

Community engagement has become nationally and internationally recognized as a hallmark of the Wartburg experience. The Carnegie Foundation for the Advancement of Teaching recognizes Wartburg among colleges that foster experiential learning and community engagement. Wartburg has been listed on the President's Higher Education Community Service Honor Roll for eight consecutive years, including four times with distinction. Wartburg was the first private college in Iowa, and the ninth in the nation, to earn a Gold rating from the Association of Sustainability in Higher Education.

Wartburg is listed in *U.S. News and World Report's* edition of *America's Best Colleges* and *The Princeton Review's* ranking of *Best Midwestern Colleges*. Its 118-acre campus includes more than 30 buildings. Old Main, built in 1880 and renovated in 1986, is listed on the National Register of Historic Places. The newest facilities include the Wartburg-Waverly Sports & Wellness Center (The W), the Science Center, and Saemann Student Center.

The Clinton Hall renovation and expansion project was completed in September 2016. It includes the addition of air conditioning, new windows, and improved bathrooms, laundry facilities, and common spaces. A new east-side addition expands the living and learning environment and includes a faculty apartment.

Wartburg College is dedicated to challenging and nurturing students for lives of leadership and service as a spirited expression of their faith and learning.



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