



MARIETTA COLLEGE

FRIDAY APRIL 20, 2018

Welcome to All Scholars Day!

Classes may be cancelled today, but the learning continues.

Today we shine a spotlight on student work. You've been spending long hours in the library, in labs, in studios, and in the workplace, and now you get to share your discoveries with the rest of us. We stand amazed at this evidence of your intellectual curiosity, creativity, and perseverance.

To celebrate your achievements, the Honors and Investigative Studies Committee has planned a special celebration during the Poster Session (3:30 to 5 p.m. in the DBRC), where we will toast your success, present you with a commemorative All Scholars Day glass, and offer prizes for attendees. And afterward, we'll continue the celebration with an all-campus picnic on the mall, complete with performances by Floodstage and the Marietta College Jazz Combo.

A day like this requires a lot of preparation. Dr. Suzanne Parsons, Director of Investigative Studies, got the ball rolling in the fall before taking her spring sabbatical, and the Honors and Investigative Studies Committee has played a huge part in making this day a success. We owe a big thank-you to the Office of Academic Affairs, Student Life, Parkhurst Dining, Marcia Stewart, and the Edwin E. MacTaggart Department of Music for their support in this event.

But most of all we want to thank you, our students, for reminding us why we are here: to inspire the kind of scholarship that makes us proud to be your teachers.

Dr. Bev Hogue, Interim Director of All Scholars Day
For the Honors and Investigative Studies Committee:

Dr. Dave Brown, Chair

Dr. Brandon Downing

Dr. Duong Le

Dr. Rob McManus

Dr. Suzanne Parsons

Jenni Zhang

All Scholars Day 2018 Master Schedule

	Time and place	Session
	9 a.m. to 7 p.m., Atrium Gallery, Hermann third floor	Art Capstone Exhibition and Student Art & Design Exhibition
A	8 to 10 a.m., DBRC Sports Medicine Classroom	Athletic Training Senior Capstone Presentations
B	9 to 9:30 a.m., Mills 107	Communication Senior Capstone Presentation
C	9 to 10 a.m., Selby 150	Chemistry Group Research Presentations
D	9 to 11 a.m., Selby 148	Physics Senior Capstone Presentations
E	9 to 11:30 a.m., Brown 103	Geology Senior Capstone Presentations (Part One)
F	9 to 11:30, Brown 210	Petroleum Engineering Senior Capstone Presentations (Part One)
G	9:30 to 10 a.m., Hermann 100	Theatre Senior Capstone Presentation
H	10 a.m. to noon, Selby 150	Chemistry Senior Capstone Presentations (Part One)
I	10 a.m. to noon, Thomas 312	Political Science Senior Capstone Presentations
J	10 a.m. to noon, Bartlett 285	Mathematics Senior Capstone Presentations
K	Noon to 1:30 p.m., Thomas 302	Honors and Investigative Studies Presentations
L	1 to 2 p.m., Thomas 113	GIS Presentations
M	1 to 3 p.m., Brown 210	Petroleum Engineering Senior Capstone Presentations (Part Two)
N	1 to 3:30 p.m., Selby 337	Chemistry Senior Capstone Presentations (Part Two)
O	1:15 to 3 p.m., Brown 103	Geology Senior Capstone Presentations (Part Two)
P	2 to 3:30 p.m., Thomas 113	History Senior Capstone Presentations
Q	2 to 3:30 p.m., Rickey 102	Environmental Science Senior Capstone Presentations
R	2:30 to 3:30 p.m., Thomas 320	Study Abroad Presentations
S	3 to 3:30 p.m., Brown 210	Energy Business Alliance Presentation
T	3:30 to 5 p.m., DBRC	Poster Session
	4:30 to 6 p.m., Alma McDonough Auditorium	PioBiz Competition
	5 p.m.	All-campus picnic on the Mall
	5:30 to 6:30 p.m.	Music on the Mall: Floodstage and the Marietta College Jazz Combo

Don't Miss these Special Events

See Art!

Art Capstone Exhibition and Student Art & Design Exhibition is on display from 9 a.m. to 7 p.m. in the Atrium Gallery, third floor of Hermann Fine Arts Center. No charge!

Hear Music!

Free public performances by Floodstage and the Marietta College Jazz Combo!

5:30 to 6 p.m.: **Floodstage** will bring their *a capella* vocals to the Mall

Aran Barney, Sarah Bishop, Steven Chambers, David Erzen, Sadie Johnson, Calaya Rake, Scotty Rockhold, Coco Shao, and Morgan Thompson

6 to 6:30 p.m.: **The Marietta College Jazz Combo** will bring their improvisational genius to the Mall

Logan Reynolds, Walter Li, Scotty Rockhold, Andres Albornoz, Ryan McGuinness, and David Torbett

Eat Food!

Join us for an all-campus picnic on the Mall starting at 5 p.m.

Win Prizes!

All Scholars Day participants will receive a commemorative engraved pub glass. Pick up yours at the registration table in the DBRC during the poster session!

All Scholars Day attendees are eligible to win door prizes including

- Amazon Echo
- \$20 gift card for the Marietta College Bookstore
- Gift cards for Starbucks coffee
- Marietta College T-shirts

You must be present at the Poster Session to win (3:30 to 5 p.m., DBRC).

Presentations

A. Athletic Training Senior Capstone Presentations 8:00 to 10:00 a.m., DBRC Sports Medicine Room Moderator: Chyrsten Gessel
Priscilla Prologo and Chyrsten Gessel. Differences between Y-Balance Scores of Incoming Collegiate Freshmen and Upperclassmen Athletes
Elena Robinson, Alicia Doerflinger, Jaclyn Schwieterman, and Chyrsten Gessel. The use of kinesio tape (KT) for facilitation of the rhomboid muscles in aiding scapula retraction
Claudia Allen and Chyrsten Gessel. Effects of V8 fusion plus energy on anaerobic division three athletes
Charles Mozena and Chyrsten Gessel. Ankle Range of Motion's Correlation with Injury Rate in Division 3 Football Players
Jenna Andersen and Chyrsten Gessel. The effects of burnout on undergraduate Ohio athletic conference (OAC) athletic training students (ATS)
Amisha Herd and Chyrsten Gessel. Acute effects of static and PNF stretching on change of direction speed and lateral reach distance

B. Communication Senior Capstone Presentation 9:00 to 9:30 a.m., Mills 107 Moderator: Dr. Dawn Carusi
Derrell Anderson. Navigating Power Differences: When Theories Conflict With Reality

C. Chemistry Group Research Presentations 9:00 to 10:00 a.m., Selby 150 Moderators: Dr. Jim Jeitler and Dr. Kevin Pate
Shannon Patberg and Dr. Jim Jeitler. Synthesis of benzothiazole derivatives for use in imaging amyloid-beta plaques
Chris Rasnake, Sophia Traussi, and Dr. Kevin Pate. Synthesis of Novel Small Organic Molecules

D. Physics Senior Capstone Presentations 9:00 to 11:00 a.m., Selby 148 Moderator: Dr. Dennis Kuhl
Thomas Korda and Dennis Kuhl. Efficiencies of Varying Wind Turbine Designs in a Wind Tunnel
Noah Lenz and Cavendish McKay. Transition to Chaos in an Unforced, Undamped Double Pendulum using Numerical Simulations
Elijah Lupardus and Craig Howald. Spectroscopic Study of Variable Hydrogen Line Emission in Be Stars
Jianghong Wan and Dennis Kuhl. Measuring adsorbate-induced resistivity changes on Au (111) thin films

E. Geology Senior Capstone Presentations (Part One)

9:00 to 11:30 a.m., Brown 103

Moderators: Dr. Tej Gautam and Wendy Bartlett

Mohammed Almuhej. Benwood Limestone Formation "facies analysis"

Abdullah Aloraini. Kope Formation Facies analysis

Zach Hughes. Experimental Thrust Fault Through Sandbox Modeling

Lydia Jones. Preparation and Analysis of a Sauropod Cervical Vertebra from the Aaron Scott Site in the Morrison Formation, Emery County, Utah

Austin Klintworth. Analysis of a Lawrence Township Landslide along Township Road 535

Casey Mayle. Facies and Cyclical Analysis of the Riley Formation in Ritchie County, West Virginia

F. Petroleum Engineering Senior Capstone Presentations (Part One)

9:00 to 11:30 a.m., Brown 210

Moderator: Dr. Dave Freeman

Mohammed Alazemi, Sultan Alshammari, W. Alsubiei and Salem Alabdali. Development of Enterprise Field

Mohammad Ali, Buthainah Saleh, and Haia Alajmi. Petroleum Capstone

Zach Hughes, Alex Hofmeier, and Arthur McCague. Hippie All Natural Gas capstone

Brent Huck, Alex Gruss, Eric Pierce and Alex Crivelli. Double L Drilling and Development of the Enterprise Field

Evan Levine, Aaron Smith, Adam Hoot and Nathan Klaiber. Senior Capstone Presentation

Michael Lichtenfels, Alec Bianchi, Mitch Pieronek, and David Stover. Senior Petro Capstone

Kali Miller, Kate Ritchey, Matt Daugherty, and Chris Japchen. S.S. Petroleum

G. Theatre Senior Capstone Presentation

9:30 to 10:00 a.m., Hermann 100

Moderator: Dr. David Makuch

Morgan Thompson, A Felt, and A Held-Dodd. Brick Street Arts Bash 2018 - Artistic Direction

H. Chemistry Senior Capstone Presentations (Part One)

10:00 a.m. to noon, Selby 150

Moderators: Dr. Kevin Pate and Dr. Jim Jaitler

Daniel Carlsen and Dr. Suzanne Parsons. The Effects of UVA and UVB Radiation on Human Melanoma Cells

Michael Johnson and Dr. Suzanne Parsons. Effect of Citral on Apoptosis in Human Melanoma Cells

Robert Thomas and Dr. Debra Egolf. Use of Principal Component Analysis and Hierarchical Clustering Analysis to Evaluate Fingerprint Residues

Elizabeth Huffman and Dr. Suzanne Parsons. The effects of manganese on cell death in human skin cells

Jason Miller and Dr. Suzanne Parsons. Effects of Lipophilicity of Propofol Derivatives on Lung Cancer Cell Death

I. Political Science Senior Capstone Presentations

10:00 a.m. to noon, Thomas 312

Moderator: Dr. Mark Schaefer

Brianna Dietry, Sam Welch, Emily Vigue, Jonah Mitchell, Sarina Singh, Emily Smith, Tara Clinton, Paige Berschet, Alexis Kaiden, and Ruolin Zhang. Needles in the Haystack: Urban Biases in Federal Drug Policy

Paige Berschet. Female Reproductive Rights in the United States

Brianna Dietry. Human Trafficking in the United States

Jonah Mitchell. Political Parties in Relation to Country Stability

Sarina Singh. The Decline of Labor Force Participation of Prime-Age Men within the United States

Emily Vigue. NGOs and Female Political Participation

Samantha Welch. The Impacts of Political Scandal: When Public Outrage Changes the Course of an Election

Sharon (Ruolin) Zhang. The impact of political instability on political participation

J. Mathematics Senior Capstone Presentations

10:00 a.m. to noon, Bartlett 285

Moderator: Dr. John Tynan

Eric Wilken. An Introduction to Chaos Theory and its Application to Population Growth Models

Joshua Daniell. What is: An Introduction to Chaos Theory

Sarina Singh. Mathematical Methods in Common Clustering Algorithms

K. Honors and Investigative Studies Presentations

Noon to 1:30 p.m., Thomas 302

Moderator: Dr. Dave Brown

Matthew Johnson. Leading the Refugee Crisis: An Application of Three Ethical Theories to the United States' Response to the Syrian Refugee Crisis

Samantha Welch, Mark Schaefer, Brandon Downing, and Dawn Carusi. The Impacts of Political Scandal on the Legislative Agenda

Cameron Dowiak, Jennifer Foss-Feig, Brendan Adkinson, and Alan Anticevic. Context Modulation in Autism and Schizophrenia

Jason Miller and Dr. Suzanne Parsons. Effects of Lipophilicity of Propofol Derivatives on Lung Cancer Cell Death

Elena Robinson, Alicia Doerflinger, Jaclyn Schwieterman, and Chyrsten Gessel. The use of kinesio tape (KT) for facilitation of the rhomboid muscles, with a strengthening protocol, aiding scapular retraction

Eric Wilken. Coming Out Towards an Understanding of Authentic Leadership for Members of the LGBT+ Community

L. GIS Presentations

1:00 to 2:00 p.m., Thomas 113

Moderator: Dr. Matt Young

M. Petroleum Engineering Senior Capstone Presentations (Part Two)

1:00 to 3:00 p.m., Brown 210

Moderator: Dr. Dave Freeman

Omar AlDhafari, Abdulaziz AlAdwani, Hadel AlAjmi, and Rahman AlAtawi. Capstone

Abdulaziz Aldousari, Hassan Al-Ibrahim, Ahmed Al-Anezi, and Nasser Abu Reesha. Senior Capstone Petroleum Engineering

Ali Alnajjar, Yousif Alhindeyani, Bader Almezyed, and Rashid Almawaizeri. Capstone

Cameron Connelly, Austin DeLeonardis, Patrick Moran, and Chuck Drennen. Petro 430 Capstone

Trevor Mescher, Evan Hensel, Lydia Jones, and Rachel Miller. Aces Energy Petroleum Capstone

Jordan Spehar, Gene Charles, Sarah Alajmi, and Abdullah Alajmi. Enterprise Field Development

N. Chemistry Senior Capstone Presentations (Part Two)

1:00 to 3:30 p.m., Selby 337

Moderator: Dr. Kevin Pate

Drew Layton. Vanadium Toxicity in Diabetes Treatments

Brett Price. Synthesis of Oxysterols Using Novel Sn² Reaction at Tertiary Carbon Centers in Epoxides

Chelsea Dalrymple. The Use of NMR and UV-Vis to Measure the Efficacy of Genetic Testing for Hemochromatosis

Cody Alderman. Novel Synthesis of a Ceramide Derivative

Casey Lassiter. The Potential Use of Pseudorotaxanes as Carrier Molecules for Ciprofloxacin

Yumu Zhang. Effect of Oxidized Silver to the Reaction in Ag-Cube Liquid Marble

O. Geology Senior Capstone Presentations (Part Two)

1:15 to 3:00, Brown 103

Moderators: Dr. Tej Gautam and Wendy Bartlett

Zachary Mullen. Growth Rate and Core Analysis of Southern Niagaran Reefs in the Michigan Basin

Joshua Nider. Facies and Depositional Environment Analysis of the Brush Creek Member, Conemaugh Group (Late Pennsylvanian), Eastern Ohio

Jacob Parks. Structural Analysis of the Burning Springs Anticline

Colby Schwaderer. Sequence stratigraphy and facies analysis, examining environmental cyclicity in the Middle Devonian Silica Formation, Sylvania O

Perry Studebaker. Igneous Petrology of Magnet Cove, Arkansas

Randy Toth. Stratigraphic Analysis of the Redstone Limestone in Washington County, Ohio

Sarah Wayman. Water Sampling and Testing from the Waterford & Tri-County Public Water Supply System Waterford, Ohio

P. History Senior Capstone Presentations

2:00 to 3:30 p.m., Thomas 113

Moderator: Dr. Katy McDaniel

Carly Matheny. Agent, Soldier, Resister: Three Female Combatants During World War II

Lane Parker. Getting away with murder: The issues of post-war justice in Japan

Q. Environmental Science Senior Capstone Presentations

2:00 to 3:30 p.m., Rickey 102

Moderator: Dr. Eric Fitch

Nell Cormack, Hayley Cormack, and Eric Wilken. Water Resources Management on Marietta College Campus

Noah VanMatre and Josh Baker. The Extirpation and Remediation of Invasive Plant Species on the Marietta College Campus

R. Study Abroad Presentations

2:30 to 3:30 p.m., Thomas 320

Moderator: Christy Burke

Rylie Wahl. Korea to China and Back Again

Matthew Johnson. A Comparative Lens: Abroad in Peru and England

Hayley Cormack. Study Abroad Experience at University of Aberdeen

S. Energy Business Alliance Presentation

3:00 to 3:30 p.m., Brown 210

Derek Krieg, Alex Hofmeier, Jay Chapin, Nicholas Cuaresma, and Britton Jackson. Energy Business Alliance—Wunnerberg 38H Production

Turn the page for the Poster Session.

T. Poster Session

3:30 to 5:00 p.m., DBRC

Moderators: Dr. Dave Brown, Dr. Brandon Downing, Dr. Rob McManus, Jenni Zhang

1	Melissa Farley. Perry & Associates Tax Internship
2	Maddison Kapple, Internship at Perry and Associates
3	Tyler Sholl, Steven True, and Corey Miller. Washington County Board of Development Disabilities WebForm
4	Thomas Korda, Gordon O'Brien, Ziru Liu, and Franco Biondolillo. Physical Plant Website Redesign
5	Brandon DeCicco. Oil and Gas Museum Capstone
6	Chandler Cunningham, Gene Charles, Andrew Milburn, Bob Matthey, and Evan Levine. Lippizan Petroleum
7	Alex Smith. Internship at Marietta High School
8	Anthony Jalowiec. Home Game Personnel
9	Dalton Secrest. Sports Management Internship with Marietta Family YMCA
10	John Jaeckin Jr. Sport Management Internship with Marietta College Athletics
11	Roger Walker. Sports Management Internship with Marietta College Football
12	Helen Moore. Pulse Literary Magazine
13	Hailey Bennett. Violets
14	Jieyu Song. How to Effectively Publicize a Brand
15	Matt Peters. Creative Internship at Stonewall Group (Summer 2017)
16	Zihui Yu. What is IMC? How Has Social Media Transformed It?
17	Zihui Yu. Summer Internship at FPR
18	Xiaojuan Si. Capstone Project
19	Zhenchang Zheng. How Fashion Bloggers and Vloggers on Youtube Impact the Society
20	Zhenchang Zheng. Internship in Reading English corporation
21	Terry Farley and Lori Smith. WSAZ: A Career Changing Experience
22	Terry Farley. Fake News and Reliability in the Media
23	Tianhui Cao, Elyssa Ackerman, Lucas Danford, Rachel George, Melinda Gimpel, Tara Moore, and Taylor Rinard. Fifth Street Consulting: 2017-2018 Client Projects
24	Tianhui Cao, Elyssa Ackerman, Lucas Danford, Rachel George, Melinda Gimpel, Tara Moore, and Taylor Rinard. Fifth Street Consulting: 2017-2018 Client Projects
25	Yang Yu. Mass Media Capstone
26	Yang Yu. Internship
27	Matthew Yates, Rick Davis, Jessi Davis, Marilee Morrow, and Lori Smith. DH Productions Internship
28	Matthew Yates, Dr. Mark Sibicky, Dr. William Bauer, Andrea Euser, and Lori Smith. Mental Health in College Students
29	Hannah Miller, Scotty Rockhold, Sadie Johnson, Lauren Eakle, Marshall Kimball, Sarah Bishop, Jonah Litman, and Alfonso Ramirez. OMEA/CBDNA Conference for Music Students
30	Amanda Augustyniak. Neonatal Abstinence Syndrome
31	Amanda Augustyniak. State Testing Validity and Delivery
32	Amanda Carpenter. Disproportional Discipline Rates in African American Students
33	Quinci Jones. Are Our Kids Being Cheated Out of a Quality Education?

34	Lindsay Joy. Importance of the Arts in Education
35	Carter Lang. Trauma-Informed Instruction
36	Ryan VanMeter. School Funding in West Virginia
37	Garrett Davis. Traumatic Brain Injuries in the Classroom
38	Maicy Kirk, Madeline Holbrook, and Caleb Hoyng. Effect of Locus of Control on Mood When Given an Unsolvable Task
39	Christine Billingsley, Amanda Medykowski, Chengyun Song, and Levito Wulur. The Effects of Competition on Basic Psychological Needs
40	Daniel Carlsen, Kelsey Carver, Lauren Eakle, and Jon Hicks. Effects of Health Food Exposure on a Cognitive Task
41	Robert Nelson. Attention Deficit Hyperactivity Disorder
42	Priscilla Prologo, Jenna Andersen, and Amisha Herd. The effects of different color and word recall through working memory
43	Elena Robinson, Alicia Doerflinger, Jaclyn Schwieterman, and Chyrsten Gessel. The use of kinesio tape (KT) for facilitation of the rhomboid muscles, with a strengthening protocol, aiding scapular retraction
44	Justin McGinnis and Kevin Alten. Treatment Algorithm for Methicillin-resistant Staphylococcus aureus (MRSA) Infections
45	Jason Miller and Dr. Suzanne Parsons. Effects of Lipophilicity of Propofol Derivatives on Lung Cancer Cell Death
46	Robert Thomas, Teresa Kuhns, Stephanie Zentz, and Dr. Debra Egolf. Use of Principal Component Analysis and Hierarchical Clustering Analysis to Evaluate Fingerprint Residues
47	Michael Johnson and Dr. Suzanne Parsons. Effect of Citral on Apoptosis in Human Melanoma Cells
48	Autumn Apgar-Neeld and Veronica Freeman. Reconstruction, Taxonomy, and Taphonomic Analysis of a Theropod Sacral Vertebrae from the Morrison Formation, Aaron Scott Quarry
49	Thomas Korda. Efficiencies of Varying Wind Turbine Designs in a Wind Tunnel
50	Noah Lenz, Cavendish McKay, and Dennis Kuhl. Transition to Chaos in an Unforced, Undamped Double Pendulum using Numerical Simulations
51	Elijah Lupardus. Spectroscopic Study of Variable Hydrogen Line Emission in Be Stars
52	Jianghong Wan and Dr. Dennis Kuhl. Measuring adsorbate-induced resistivity changes on Au (111) thin films
53	Eric Wilken, Evan Hensel, and Mande Young. Prisoner Reentry within the United States: A Servant Leadership Approach
54	Jasmine Lamp. The Bestseller Program at the Marietta College Bookstore
55	Taryn Hicks, Dillon Young, and Martin Hall. The Effect of Citizenship Behaviors on Students' Academic Performance and Stress Levels in Response to Perceptions of Support
56	Daniel Farinelli, Pamela Lankford, Tasha Werry, and Jenny Bruce. Operations Management Internship with The Epicenter
57	Gregory Peffley, Brianna Finck, Yuan Sun, and John Fazio. Performance and the Human Equation: A Comparative Study of The 2017 Fortune 100 Best Companies to Work For
58	Gregory Peffley. Marketing Internship With The Lafayette Hotel
59	Levito Wulur. Marketing & Communications Internship with Marietta Community Foundation