Welcome to the UNH Undergraduate Research Conference

Thank you for joining us for the 20th annual Undergraduate Research Conference. This is an exciting showcase of our students’ innovative research and academic excellence, and a wonderful opportunity to celebrate our faculty mentors, whose research and teaching expertise are the hallmarks of a great UNH education.

The URC is a highlight of the academic year at our Durham and Manchester campuses, and reflects UNH’s commitment to encouraging students in every discipline to pursue cutting-edge research. This year, more than 2,000 students and 440 faculty mentors are taking part in the URC—an all-time record, which makes our URC one of the largest and most diverse gatherings of undergraduate researchers in the nation.

Whether you visit a poster session, an oral presentation or a hands-on demonstration, we think you will be impressed, even surprised, by the range of creative and practical solutions that our students develop to improve the quality of life here in New Hampshire and around the world. We’re delighted to welcome you to the URC, and always appreciate your support for New Hampshire’s flagship public research university.

Best regards,

James W. Dean Jr.
President

Wayne Jones
Provost and Vice President for Academic Affairs
WELCOME to the 20th annual celebration of academic excellence at the University of New Hampshire! The URC embodies UNH’s mission to offer students a discovery-based education by encouraging inquiry, exploration, and deeper immersion in their fields of study. This year, more than 2,000 students—mentored by over 440 faculty members and other research advisers—will present their research and scholarship at URC events, which include symposia, panel and poster sessions, performances, and prize competitions. Student presenters represent disciplines from across the academic spectrum, reflecting the breadth and depth of undergraduate research and scholarship at UNH.

At the Hamel Center for Undergraduate Research, our core mission is to provide resources and financial support for the research, scholarly, and creative projects of UNH students. Our additional role as the administrative home of the URC enables us to broaden our commitment to supporting, nurturing, and showcasing all stages of the research process. We are excited to build upon the growth and success of previous years and to further promote and expand the opportunities for undergraduate research at UNH.

In every research process, the final stage is the communication of findings to the wider public, and the URC enables students to share the results of their scholarship with fellow students, faculty, staff, family members, federal and state agency personnel, business and industry representatives, and members of our local community. For many students, the URC is their first opportunity to present their work to such a broad audience. The URC is thus vital in giving students practice in speaking in public, communicating complex ideas to a general audience, sharing ideas with colleagues in their fields, and developing a deeper understanding of their subject areas. Such experience prepares students to pursue graduate study and to establish and be successful in meaningful careers.

As we prepare to celebrate the 20th anniversary of this University-wide event, we want to recognize the many members of the UNH community whose dedication and enthusiasm are critical to making the URC possible. You will find their names in the acknowledgements at the back of the book. The partnerships between—and shared investment of—students, faculty, staff, and administrators not only ensure the success of the URC but also demonstrate the strength of the UNH community.

Thank you for joining our community as we celebrate our students’ remarkable scholarship!

Paul C. Tsang, Ph.D.
Director, Hamel Center for Undergraduate Research
Professor of Molecular, Cellular, and Biomedical Sciences

Molly Doyle, Ph.D.
Administrative Director, Hamel Center for Undergraduate Research

Amanda Adams, M.A.
URC Coordinator, Hamel Center for Undergraduate Research
**URC 2019 Contents**

Calendar of Events ........................................ 4
Map ..................................................................... 5

**Thursday, April 11 Events**
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition
(Charles & Miriam Nelson Poster Competition) ............ 6

**Friday, April 12 Events**
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition
(Bud Albin Challenge Round) ................................. 6
Senior B.A., B.F.A. & M.F.A. Exhibition and Preview Reception .... 6

**Thursday, April 18 Events**
History Department URC ......................................... 6

**Friday, April 19 Events**
Student Composers’ Concert ...................................... 7

**Monday, April 22 Events**
UNH Manchester URC Student Leadership Academy
Senior Oral Presentations ......................................... 7

**Tuesday, April 23 Events**
UNH Manchester URC Oral Presentations ......................... 8

**Wednesday, April 24 Events**
The Naked Arts—Creativity Exposed! (Act I) ...................... 8
Interdisciplinary Science and Engineering (ISE) Symposium .... 9
UNH Manchester URC Computing Technology
Poster Presentations ............................................. 20
UNH Manchester URC Poster Presentations ..................... 20

**Thursday, April 25 Events**
UNH Manchester URC Cinema Arts Day ......................... 22
Languages, Literatures, & Cultures (LLC) Department URC .... 22
The Naked Arts—Creativity Exposed! (Act II) .................... 23
Philosophy Department URC ......................................... 23

**Friday, April 26 Events**
All Colleges Undergraduate Research Symposium
Welcome Breakfast .................................................. 24
All Colleges Undergraduate Research Symposium
Oral Presentations, Session A ...................................... 24
Poster Presentations, Session A .................................... 27
Oral Presentations, Session B ...................................... 30
Poster Presentations, Session B .................................... 33
Oral Presentations, Session C ...................................... 37
Paul College of Business and Economics URC
Poster Presentations .................................................. 39
Oral Presentations ...................................................... 45
UNH Manchester URC Engineering Technology
Senior Project Presentations ....................................... 48
The Naked Arts—Creativity Exposed! (Act III) .................. 49
Honors English URC ................................................... 49
College of Health and Human Services (CHHS)
Grimes Award Competition ....................................... 50
Psychology Department George M. Haslerud URC ............ 51

**Saturday, April 27 Events**
College of Life Sciences and Agriculture (COLSA) URC
Oral Presentations ................................................... 51
Poster Presentations .................................................. 52
Paul College of Business and Economics First-Year
Innovation and Research Experience (FIRE) URC ............ 57

**Events in May**
Ann Manchester Kelley Nursing Inquiry Day .................. 62
Chemistry Department Poster Exhibition ....................... 62
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition
(Championship Round) ........................................... 63

**Additional Features**
Acknowledgments .................................................... 64
Student Index ......................................................... 65

All events are free and open to the public. Accessibility accommodation requests may be directed to Amanda Adams at (603) 862-5494.
**URC 2019 Calendar**

All events are free and open to the public.  
(Building numbers are bold and in parenthesis.)

<table>
<thead>
<tr>
<th>Thursday, April 11</th>
<th>THURSDAY, APRIL 11</th>
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<tbody>
<tr>
<td>12–2 p.m.</td>
<td>Paul College of Business and Economics</td>
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<td>Paul J. Holloway Prize Innovation to Market Competition</td>
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<td>Charles &amp; Miriam Nelson Poster Competition</td>
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<td>Paul College, Rooms G35 and G45 (6)</td>
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BUILDING KEY

1. Hamilton Smith Hall
2. McConnell Hall
3. Memorial Union Building (MUB)
4. Murkland Hall
5. Parsons Hall
6. Paul College
7. Paul Creative Arts Center
8. Pettee Hall
9. Whittemore Center Arena

UNH Manchester
88 Commercial Street (Pandora Mill)
Manchester, N.H.

For directions to UNH Manchester
go to manchester.unh.edu/directions-parking or call (603) 641-4124.
Peter T. Paul College of Business and Economics
Paul J. Holloway Prize
Innovation to Market Competition

Charles & Miriam Nelson Poster Competition
Thursday, April 11
12–2 p.m.
Paul College, Rooms G35 and G45
This poster competition gives all teams entered in the Holloway Prize Innovation to Market Competition an opportunity to showcase their research into entrepreneurship. Teams have three minutes to present their business idea, followed by three minutes of Q & A with the judges.

Peter T. Paul College of Business and Economics
Paul J. Holloway Prize
Innovation to Market Competition

Bud Albin Challenge Round
Friday, April 12
12:50–4 p.m. Paul College
4–8:15 p.m. UNH ECenter
The Bud Albin Challenge acts as the Semi-Final Round of the Holloway Prize Innovation to Market Competition. Twenty teams present their business concepts to a panel of industry judges. From here, six will be selected to move on to the Championship Round.

Senior B.A., B.F.A. & M.F.A. Exhibition and Preview Reception
Friday, April 12
6–8 p.m.
Paul Creative Arts Center, Museum of Art
This annual show celebrates the achievements of graduating art students from the UNH Department of Art and Art History.
Adviser: Jennifer Moses
Adeline Boysen
Fine Arts
The Modern Family in Film
Daniel Faiella
Fine Arts
The Mind’s Eye and the Eye’s Mind: The Centrality of Observational Memory in Non-Observational Painting
Rachel Goyette
Fine Arts
Inspirations: From German Expressionism to Comic Books
Julianna Sagliano
Fine Arts
The Psychology of Architecture

History Department
Undergraduate Research Conference
Thursday, April 18
12:15–2 p.m.
Memorial Union Building
The History Department hosts several panels of undergraduate history majors who present research projects from their academic classes, research seminars, independent research projects, and Honors theses. The History Undergraduate Research Conference provides History students with the opportunity to share their work with fellow students, professors, and families.

MUB, Room 340
Disciplines at the Crossroads:
History, Politics, and Political Science
Moderator: Mark Lane
Nicholas Fitzgerald
History, Political Science
A Study of Two Fields: How the Disciplines of History and Political Science Can Show the Causes and Effects of War
Adviser: Alynna Lyon
Audrey Getman
Classics, History
Using Comparative History to Contextualize Current Events: Ancient Athens vs. the Modern United States
Adviser: Michael Leese
Austin Hyatt
History
We Win, They Lose: The Ideology of American Exceptionalism in Ronald Reagan’s Foreign Policy
Adviser: Jessica Lepler
Astrid Kipka
History, Political Science
Allen Dulles and the Rise of the C.I.A.
Adviser: Kurk Dorsey

The information contained in this program is considered accurate at press time.
MUB, Room 338

**The Evolving JFK: New Perspectives on President Kennedy**

Moderator: David Steelman  
Adviser: Ellen Fitzpatrick

Kory Brennman  
History  
JFK’s Leadership Development

Jennifer Gallagher  
History, Philosophy  
A Great Change: The Importance of John F. Kennedy’s Civil Rights Speech for His Legacy and Americans

Andrew Jones  
History  
John F. Kennedy: A Distorted Life and Buried Legacy

Delaney Kabat  
History  
JFK, MLK, and Birmingham

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MUB, Room 302

**Center and Periphery: Power and Politics between Town, State, and Nation**

Moderator: Maree Magliochetti

Brianne Morneau  
Educational Studies, History  
The Economic and Cultural Connections of a Small Mill City  
Adviser: Jessica Lepler

Kelly Pedersen  
History  
Manipulating the New Hampshire Mail: Political Power and the American Postal Service, 1792-1829  
Adviser: Jessica Lepler

Craig Weatherbee  
History, Russian  
Corvettes and Clean Air  
Adviser: Kurk Dorsey

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**Student Composers’ Concert**

**Friday, April 19  
8–10 p.m.  
Paul Creative Arts Center, Bratton Recital Hall**

The UNH Student Composers’ Concert is an annual event that features the music of undergraduate and graduate students of the Music Department. The music is newly composed, and is almost exclusively performed by fellow music students.

Vajl Adamkowski  
Music Education  
The Joy of Spring — Fantasy for String Quartet in C Major  
Adviser: Michael Annicchiarico

Matthew Gennard  
Music  
GENESIS Suite — Composition for Four Hands Piano and Flute  
Adviser: Christopher Kies

Ethan Giles  
Music Education  
Isle of Passion (for String Quartet)  
Adviser: Michael Annicchiarico

Bryan Whittier  
Music  
My Triumph  
Adviser: Michael Annicchiarico

Spencer Wiles  
Music  
Architectural Landscapes: A Collection of Works for Unaccompanied Piano  
Adviser: Christopher Kies

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**UNH Manchester URC Student Leadership Academy Senior Oral Presentations**

**Oral Presentations**

**Monday, April 22  
9–11:30 a.m.  
Pandora Mill, Room 201  
88 Commercial St., Manchester**

UNH Manchester’s Student Leadership Academy is designed to give students professional and networking opportunities to become a leader in their community and career. From assuming a student leader role on campus to fostering social change off campus, students will broaden interpersonal and leadership skills through engagement, collaboration and community service.

Adviser: Melissa Lyon

Rachel Avery  
English, History

Nicole Milone  
Psychology

Meghana Tadepalli  
Biological Sciences  
Little Free Pantry: Tackling Food Insecurity on a Commuter College Campus

Amber Derouin  
American Sign Language (ASL)/English Interpreting  
Finding My Flow

Allison Dyke  
Neuropsychology  
Share the Care and End the Stigma: The Truth about Mental Illness among College Students

Jasmine Huffman  
Psychology  
The $29,000 Difference: Leading with Emotional Intelligence

Shreya Vijay  
Psychology  
All Inclusive: Cultural Competency Training for Student Mentors
UNH Manchester
Undergraduate Research Conference

Oral Presentations

Tuesday, April 23
8:30 a.m.–1 p.m.
Pandora Mill, Room 201
88 Commercial St., Manchester

The UNHM URC Oral Presentations feature formal scholarly presentations and/or multimedia presentations reflecting the students’ research interests.

Benjamin Byerly
History
American and Japanese Reactions to the Atomic Bombs: A Study of Education, Memorialization and Relief
Adviser: John Cerullo

Kara Kelly-Martin
American Sign Language (ASL)/English Interpreting
The Relevance of Repetitive Stress Injuries in American Sign Language-English Interpreters: Deaf, Coda, and Hearing
Adviser: Laurie Shaffer

Mahad Khan
Takuma Okada
Joseph Ronca
Politics and Society
Samantha Lake
Undeclared
Robert Richard-Snipes
Political Science, Women's Studies
Gun Control and Homelessness: Advocacy in the New Hampshire State Capitol
Adviser: Stephen Pimpare

Jacob Maynard
History
Is There a Right Way to Memorialize the Holocaust? Jedwabne Case Study
Adviser: John Cerullo

Andrew McElroy
History
Historian Josef Wulf and the Wannsee Villa Memorial
Adviser: Kristen Woytonik

Kimberly Morrow
Politics and Society
How Does the United States Compare to Other OECD Nations in Workplace Gender Equality?
Adviser: Melinda Negron-Gonzales

Joseph Ronca
Politics and Society
Welcome to America: The Impact of Support Networks on the Assimilation of Immigrants and Refugees
Adviser: Melinda Negron-Gonzales

Cole Rutledge
History
Education in Fascist Italy
Adviser: John Cerullo

Nicole Toy-Caron
History
Tudor Women's Fashion: Solidarity and Competition among the Folds of Court Attire
Adviser: John Cerullo

Shreya Vijay
Psychology
Federal and New Hampshire Opioid Laws Are Ineffective
Adviser: Daniel Seichepine

The Naked Arts—Creativity Exposed

Act I

Wednesday, April 24
12–2 p.m.
Paul Creative Arts Center, Museum of Art

This event exposes the inner creative process of artists working in various disciplines. Presenters will describe the process, research, and other creative aspects undertaken to bring an artistic creation from initial inspiration to the stage or gallery. This may include a performance or excerpts from their work to illustrate their creative scholarship.

Adeline Boysen
Fine Arts
The Modern Family in Film
Adviser: Jennifer Moses

Rachel Goyette
Fine Arts
Inspirations: From German Expressionism to Comic Books
Adviser: Jennifer Moses

Caleb Jagoda
English/Journalism
"Pocketful of Stars" and Other Poems
Adviser: Mekeel McBride

Elizabeth O'Connor
English
Tin Can Conversations
Adviser: Thomas Payne

Annelise Papinsick
Music
Musicking in Québec
Adviser: Rose Pruiksma
Interdisciplinary Science & Engineering (ISE) Symposium

Poster Presentations

Wednesday, April 24
1–5 p.m. Judging
6–7 p.m. Awards
7–8:30 p.m. Open House
Whittemore Center Arena

The ISE Symposium welcomes and encourages scientific presentations from undergraduate students in all colleges and departments. The event features undergraduate research that contributes to or benefits from an interdisciplinary science and engineering perspective.

**Biology**

Group Leader: Krisztina Varga

Anna Haber
Genetics
*Understanding the Role of Polyamines in Rice under Drought and Salt Stress*
Adviser: Subhash Minocha

Connor Haney
Biochemistry, Molecular and Cellular Biology
*Rudimentary Protein Mimics: Intramolecular Cross-Linked Linear Proteins*
Adviser: Erik Berda

Ryan Boudreaux
Bioengineering
*Polymer BioConjugates (with Pendant Amino Acids, Peptides, or Proteins) for Anti-Icing Coatings*
Adviser: John Tsavalas

Jingjing Lou
Biochemistry, Molecular and Cellular Biology
*Biophysical Studies on an Antifreeze Protein from the Desert Beetle, Anatolica polita*
Adviser: Krisztina Varga

Mackenzie Meier
Zoology
*Bryde’s Whale Call Structure and Seasonal Distribution in the Equatorial Pacific*
Adviser: Daniel Howard, Jennifer Miksis-Olds

Matthew Morris
Wildlife and Conservation Biology
*Identifying Dispersal Corridors for the Endangered New England Cottontail*
Adviser: Ethan Belair, Steven Roberge

Ryan Puterbaugh
Biochemistry, Molecular and Cellular Biology
*Biophysical Studies on an Antifreeze Protein from the Desert Beetle, Anatolica polita*
Adviser: Krisztina Varga

**Chemical Engineering/Bioengineering**

Group Leader: Young Jo Kim

Zachary Andronaco
Bioengineering
*Mechanistic Studies of Thermal Decomposition of Nickel-Iron Layered Double Hydroxides*
Adviser: Nan Yi

Brooke Benson
Chemical Engineering
*Pulse Electrodeposition of Copper-Indium-Gallium Alloys as Precursor Layers for Thin Film Solar Cells*
Adviser: Harish Vashisth

Caroline Houston
Dean Yost
Chemical Engineering
*Effect of Hydrophobic Pretreatment on Type III Aluminum Anodized Surfaces*
Adviser: Kang Wu

Valerie Mores
Chemical Engineering
*Pulse Electrodeposition of Copper-Indium-Gallium Alloys as Precursor Layers for Thin Film Solar Cells*
Adviser: Dale Barkey
Gregory Novotny  
Chemical Engineering  
*Phase Transitions of Titanium Dioxide Nanocrystals*  
Adviser: Nan Yi

Paul Worthington  
Chemical Engineering  
*Gold Modified Tungstosilicic Acids: Synthesis, Characterizations and Application in Methanol Reaction*  
Adviser: Nan Yi

**Chemistry**

Group Leader: Roy Planalp

Benjamin Adams  
Chemistry  
*Determination of Hydroxyl Surface Coverage on Waterborne Polymeric Nanoparticles via Grafting with Fluorescent Pyrene Tag*  
Adviser: John Tsavalas

Francesca Barucci  
Biochemistry, Molecular and Cellular Biology  
*Synthesis of N-Heterocyclic Carbene Ligands for Transition Metal Catalysis*  
Adviser: Christine Caputo

Sarah Benware  
Biochemistry, Molecular and Cellular Biology  
*Fabrication of Polymer Nanoparticles via Intrachain Ring-Opening Metathesis Polymerizations (ROMP)*  
Adviser: Erik Berda

Siran Cinar  
Chemistry  
*Synthesis of Proline Derivatives for Incorporation into Phosphonamino Acid-Based Inhibitors of Metallo-ß-Lactamase Enzymes*  
Adviser: Marc Boudreau

Hannah Coco  
Chemistry  
*Chiral Enhancement of Carbon Dots Synthesized from Amino Acids and Their Applications in Amyloid-Beta 42 Fibrillation*  
Adviser: Christine Caputo

Noah Cote  
Chemistry  
*Synthesis of 2,3-Benzoxepin for Comparative Two Electron Oxidation Studies with Cerium(IV) Ammonium Nitrate and Cytochrome P450*  
Adviser: Arthur Greenberg

Jason Cournoyer  
Biochemistry, Molecular and Cellular Biology  
*Exploring C-H Amination Methodology for the Preparation of Peptide Synthesis-Ready Enduracididine Derivatives*  
Adviser: Marc Boudreau

Victoria Curtin  
Chemistry  
*Studies in Zinc Carbenoid-Mediated Chain Extensions and ß-Proline Derivative Formations via Activated Imines in the Presence of y-Keto Esters*  
Adviser: Charles Zercher

Nicholas Heath  
Chemistry  
*Construction of a Low Temperature Plasma Probe Capable of Ambient Ionization of Samples for Mass Spectrometric Analysis*  
Adviser: Anyin Li

Christopher LaSalle  
Chemistry  
*Styrene-Based Single-Chain Nanoparticles via Atom Transfer Radical Coupling: Structural and Electronic Effects*  
Adviser: Erik Berda

Michael Moheban  
Chemistry  
*Synthesis of Inorganic N-Heterocyclic Carbene Derivatives for Transition Metal Catalysis*  
Adviser: Christine Caputo

Nathan Shipley  
Chemistry  
*Controllable Synthesis of Single-Chain Nanoparticles via ATRC*  
Adviser: Erik Berda

Katelyn Wentworth  
Chemistry  
*Novel Synthetic Applications of Benzyl Cation Chemistry*  
Adviser: Richard Johnson

**Civil & Environmental Engineering—Design**

Group Leader: Tony Puntin

Rezwan Ali  
Allan Masison  
Owen Sweet  
Civil Engineering  
Nicholas Francis  
Environmental Engineering  
Philip McHenry  
Environmental Engineering, International Affairs  
*Lonza Biologics Campus Expansion, Portsmouth, NH*  
Adviser: Anthony Puntin

Matthew Barakian  
Rachael Flores  
Erica Levin  
Jack Levine  
Timothy Murray  
Civil Engineering  
*Franconia Bridge Rehabilitation, NH 18 over Lafayette Brook*  
Adviser: Julie Whitmore

Paige Begin  
Jase Gregoire  
Austin Jacinto  
Michael Lopez  
Anthony Lupo  
Civil Engineering  
*Newington-Dover, NH Boardwalk and Park Enhancements at the General Sullivan Bridge*  
Adviser: Raymond Cook

Benjamin Curcio  
Justin Fiala  
Erik Leger  
Jake Manning  
Civil Engineering  
*Implementing Cross-Lamination Concepts in Composite Timber Beams*  
Adviser: Raymond Cook

David Czapkowski  
Trevor Hentz  
Matthew McWeeny  
Conor Mullaney  
Elijah Williams  
Civil Engineering  
*Busteni, Romania Gondola Conceptual Layout and Departure Site Design*  
Adviser: Erin Bell
## Civil & Environmental Engineering—Innovation & Research

**Group Leader:** Eshan Dave

<table>
<thead>
<tr>
<th>Name</th>
<th>Advisor/Department</th>
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<tbody>
<tr>
<td><strong>Civil Engineering</strong></td>
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<td>Joseph Dutile</td>
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<td>Kathryn Dziadowicz</td>
<td>Environmental Engineering</td>
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<td>Benjamin MacDonald</td>
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<td>Trevor Ribbans</td>
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<td>Dominic Emory</td>
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<td>Grant Erickson</td>
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<td>Aimee Wilinkiewicz</td>
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<td><em>Multigenerational Site Redevelopment of the Doble USARC</em></td>
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<td>Luke Mueller</td>
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<td>Carla Lefebvre</td>
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<td><em>Geoengineered Materials for 3D Printing Structures</em></td>
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<td>Advisers: Eshan Dave, Majid Ghayoomi</td>
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<tr>
<td><strong>Environmental</strong></td>
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<tr>
<td>Carlisa Mak</td>
<td>Civil Engineering, International Affairs</td>
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<td>Thomas O’Rourke</td>
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<td>Advisers: Dan Bernard, Eshan Dave, Thomas Weber</td>
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<td>James Burton</td>
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<td>Erik Steinborn</td>
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<td>Thomas Libby</td>
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<td><em>Comparing Hydraulic Geometry</em></td>
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<td><em>Relationships to Field and Remotely Sensed Measurements of Rivers in New England</em></td>
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<td>Samuel Lanternier</td>
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<td><em>Design of Pressurized Household Radon Stripping System</em></td>
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<td>Lucas Theoharidis</td>
<td>Environmental Engineering</td>
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<td><em>Understanding the Sources and Fate of Emerging Contaminants in the Great Bay Estuary</em></td>
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<td>Adviser: Paula Mouser</td>
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2019 UNDERGRADUATE RESEARCH CONFERENCE • 11
Civil & Environmental Engineering—Investigation & Assessment

Group Leader: Majid Ghayoomi

Sonnet Agran-St. Pierre
Emily Belisle
Emily Cook
Elizabeth Philpott
Emma Sutherland
Environmental Engineering
Georgetown, ME Culvert Analysis
Adviser: Nancy Kinner

Austin Ahearn
Andrew Bulluck
Ezequiel Galvan
Andrew Holland
Valeria Kandou
Civil Engineering
I-93 Multi Modal Access Study
Advisers: Dave Cedarholm,
Roch Larochelle, Anthony Puntin

Peter Benjaminsen
Allison Christie
Civil Engineering
The Living Bridge: Turbine Deployment
Platform Loading and Motion Study
Advisers: Erin Bell, Martin Wosnik

Cody Buckman
Allison Heil
Civil Engineering

Caroline Kahr
Alexander Moody
Nicholas Raffi
Environmental Engineering
Feasibility Analysis of Alternatives
for the Beard’s Creek Dam in Durham,
New Hampshire
Adviser: Paula Mouser

Morgan Dunson
Andrew Lanza
Patrick Serven
Civil Engineering
Jacob Kostandin
Nathan Muska
Environmental Engineering
Merrimack River Greenway Trail
Adviser: Kyle Kwiatkowski

Christina Eddleman
Anna Smith
Emma Turgeon
Environmental Engineering
UNH Safe Drinking for Malawi
Adviser: James Malley

Nathaniel Green
Nathan LaTourette
Benjamin Sawosik
Nicholas Woodman
Environmental Engineering
Groundwater Monitoring and Assessment:
Northeast Coal Ash Landfill
Adviser: Harrison Roakes

Madison Jones
Environmental Engineering

Tyler Judd
Civil Engineering

Julia King
Civil Engineering, Justice Studies

Haley Puntin
Environmental Engineering, Sustainability
Mirror Lake Equestrian Arena
Stormwater Management
Adviser: Kyle Kwiatkowski

Qianru Lu
Angela Millette
Griffin Parodi
Shannen Pimental
Zachary Ready
Environmental Engineering

Christopher Negrotti
Civil Engineering
Phase III Landfill Design—Lebanon, NH
Advisers: Jean Benoit, Kevin Gardner

Daniel Meditz
Joseph Sacciente
Jonathan Scanlon
John Wichert
Civil Engineering

U.S. Botanic Garden Structural Collapse
Prevention Project
Adviser: Raymond Cook

Computer Science—Applications

Group Leader: Collette Powers

Zachary Carrano
Alexander Hawk
Jae Beom Lim
Connor Pratt
Kevin Robinson
Eric Smath
Computer Science
HERE: Virtual Attendance
Adviser: Scott Valcourt

Veronica Chambers-O’Bryan
Information Technology,
International Affairs

Jason Nguyen
Information Technology
Air Force ROTC Smartphone Application
Advisers: Radim Bartos,
Whitney O’Connell

Andrew Chorlian
Matthew Ferullo
Philip Kessler
Information Technology

Michael Leroux
Christopher Puda
Chase Sanville
Computer Science
Spotter: A Campus Parking Solution
Adviser: Scott Valcourt

Robert Colley
Alexander Saveliev
Computer Science

Sean Diamond
Nicholas LaGambina
Marcello Paiva
Information Technology
NextStep Health Tech
Advisers: Sam Warach, Connor Whelan

Maxwell Croteau
Udhay Vijay
John Ward
Information Technology

Daniel Crowley
Computer Science

NENA Mobile Health Application
Advisers: Courtney Eaton,
Collette Powers
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<tr>
<th>Name</th>
<th>Academic Program</th>
<th>Advisor</th>
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<tr>
<td>Timothy Flanagan</td>
<td>Information Technology Consulting Company Dashboard</td>
<td>Scott Valcourt</td>
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<td>Lakshmi Jampana</td>
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<td>Junjie Ke</td>
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<td>Appalachian Mountain Club’s Cold River Camp—Online Reservation Request System</td>
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| 2019 UNDERGRADUATE RESEARCH CONFERENCE • 13
**Earth & Ocean Science**

**Group Leader: Anne Lightbody**

**Madison Alstede**
Earth Sciences  
*Spatial Variations in Microbial Metabolism in the South Atlantic Bight*  
Adviser: Kai Ziervogel

**Ella Cedarholm**
Earth Sciences  
*Investigating the Mysterious Deep Cesium from Fukushima*  
Advisers: Alison Macdonald, Irina Rypina, Sachiko Yoshida

**Jessica Gray**
Earth Sciences  
*The Role of Temperature on the Regeneration of Nutrients in the Gulf of Maine*  
Adviser: Robert Letscher

**Xiaoyan Liu**
Earth Sciences  
*Parameter Estimation for Groundwater Pump Tests*  
Adviser: J. Matt Davis

**Alexandra Melnyk**
Earth Sciences  
*Killifish Mercury Concentrations in Wells, ME*  
Adviser: Julia Bryce

**Rebecca Philibert**
Anthropology, Earth Sciences  
*Neodymium and Trace Element Analysis of Clays from the Belize River Valley*  
Advisers: Julia Bryce, Maria Fahnstock, Eleanor Harrison-Buck

**Sam Segal**
Earth Sciences  
*Effects of Deglaciation on the Hydrothermal Systems of Yellowstone National Park*  
Adviser: Joseph Licciardi

**Ty Smith**
Earth Sciences  
*Characterizing Inter-Canyon Sedimentation in the Krishna Godavari Basin Offshore India*  
Adviser: Joel Johnson

---

**Adams Smyth**
Earth Sciences  
*Temperatures’ Influence on the Carbon and Nutrient Supply to Benthic Organisms in the Gulf of Maine*  
Adviser: Robert Letscher

**Delaney Todd**
Earth Sciences  
*Determining the Magnetic Mineralogy of Piceance Basin Sediments Using Isothermal Remanent Magnetization*  
Adviser: William Clyde

---

**Electrical & Computer Engineering—Hardware Design**

**Group Leader: Se Young Yoon**

**Jakob Anderson**
Electrical Engineering  
*Serial through Audio*  
Adviser: Michael Carter

**Joseph Balsamo**
Computer Engineering  
*Phase Interferometry-Based RF Direction Finder*  
Adviser: Kent Chamberlin

**Pedro Campos**
Alexander Yatzus  
Electrical Engineering  
*Hybrid Engine Rocket Ignition and Control*  
Adviser: Se Young Yoon

**Joshua Coville**
Nathan Steimke  
Electrical Engineering  
*Harvesting Energy from the Movement of Trees*  
Adviser: John LaCourse

---

**Electrical & Computer Engineering—Software/Systems Design**

**Group Leader: Wayne Smith**

**Hunter Anderson**
Computer Engineering  
*EEG Patterns Related to Variable Learning in Motor Skills Acquisition*  
Advisers: Ronald Croce, Wayne Smith

**Issam Benabdellkrim**
Alfred Odierno  
Amadou Tall  
Electrical Engineering  
*Image Processing of Plant Phenotypes*  
Adviser: Richard Messner

**Matthew Bocko**
Jordan Zeleny  
Electrical Engineering  
*Vehicle Detection Software for Bikes and Longboards*  
Adviser: Edward Song
Joseph Caraccio
Noah Fitter
Benjamin Miller
Computer Engineering
Using Augmented Reality to Improve Museum Exhibits
Adviser: Andrew Kun

Campbell Conrad
Alexander Mullen
Matthew Reagan
Computer Engineering
Portable Audio Control with Adaptive Equalizer
Adviser: Michael Carter

Nadia Fereydooni
Computer Engineering
Designing an Augmented Reality Interface for Automated Driving
Adviser: Andrew Kun

Nadia Fereydooni
Computer Engineering
Visual Behavior during Engagement with Tangible and Virtual Representations of Archeological Artifacts
Adviser: Andrew Kun

Lauren Gagne
Kasey Hampton
Dylan Silveira
Electrical Engineering
Semi-Autonomous Motorized Aquarium
Adviser: Richard Messner

Nicholas Hurd
Computer Engineering
Luxing Zeng
Computer Science
On-Demand Smart Beverage Maker
Adviser: Edward Song

Jhad Katerji
Daniel Vasilevsky
Computer Engineering
Autonomous Lane-Keeping Remote-Controlled Vehicle
Adviser: Se Young Yoon

Justin Paquette
Ethan Wamsley
Computer Engineering
Application and Analysis of Vehicle to Infrastructure (V2I) Communications
Adviser: Nicholas Kirsch

**Environmental Science**

**Group Leader: Ruth Varner**

Kathryn Bennett
Environmental Sciences, Sustainability
Using Stable Isotope Analysis of Methane in the Bubbles and Sediment Porewater of Ponds to Determine Methane Production Pathways
Adviser: Ruth Varner

Nathan Blais
Christina Lyons
Environmental Sciences
Effects of Storage Time and Temperature on Molecular Analyses of Soil Fauna Communities
Adviser: Jessica Ernakovich

Nathan Blais
Environmental Sciences
Quantifying the Effects of Forest-to-Pasture and Forest-to-Silvopasture Conversions on Supporting and Regulating Ecosystem Services
Adviser: Alexandra Contosta

Ashley Fortune
Environmental Sciences
Relationship between Reservoir Storage and Downstream Flow in New England
Adviser: Anne Lightbody

Madeline Juffras
Michael Zampini
Environmental Sciences
Clarice Perryman
Earth Sciences
Scaling Methane Emissions Using Vegetation Cover Type at Sallie's Fen
Adviser: Ruth Varner

Margaret Phillips
Environmental Sciences
The Role of Small Reservoirs in Reducing Reactive N Export via Denitrification
Adviser: Wilfred Wollheim

Bonnie Turek
Environmental Conservation and Sustainability
Greenhouse Gas Ebulition in Streams of Varying Watershed Land Use and Sediment Composition
Adviser: Wilfred Wollheim

Emily Wilcox
Earth Sciences
Tracking Snowmelt Dynamics with Citizen Science Snow Observations in New Hampshire
Adviser: Elizabeth Burakowski

Madison Wood
Earth Sciences
Mercury in Wetland Vegetation
Adviser: Julia Bryce

Xiaohang Xue
Earth Sciences
Water Quality Analysis of the Lamprey River Watershed
Adviser: Anne Lightbody

Marisa Yacco
Geography, Sustainability
Impacts of Warming Winters on Red Maples in New Hampshire
Adviser: Mary Stampone

Michael Zampini
Environmental Sciences
Impact of Nitrogen Inputs on Plant Composition at a New Hampshire Fen
Adviser: Ruth Varner

**Innovation Scholars**

Group Leader: Drummond Biles

Jennifer Barbuto
Bioengineering
Joelle LaFreniere
Mechanical Engineering
Jonathan Nelson
Computer Science
Collegiate Calendar Aggregator and Organizer
Adviser: Timothy Carlin

Allison Bickford
Engineering Physics
Alexander Charest
Mechanical Engineering
Matthew Gigliotti
Chemical Engineering
Evaluation of Sunny Day Flooding at Hampton Beach, New Hampshire
Adviser: Drummond Biles
Orrin Bliss
Mechanical Engineering
Benjamin Nadeau
Undeclared
Ashley Roy
Computer Science
Semi-Autonomous Plant Grower
Adviser: Timothy Carlin

Samantha Brady
Mechanical Engineering
Kathryn Goldner
Bioengineering
Emily Skowfoe
Chemical Engineering
Applying Manufacturing Concepts to an Arduino Robot
Adviser: Oscany Rodriguez-DeJesus

Megan Cramton
Nicole King
Environmental Engineering
Hannah Miller
Civil Engineering
Storage Release Curves for Local Dammed Reservoirs
Advisers: Drummond Biles, Anne Lightbody

Evan Dowd
Alexis McGarry
Richard Randall
Mechanical Engineering
UNH Innovation Scholars CNC Machining Lab
Adviser: Michael Locke

Robert Dowst
Christian Lamers
Christian Workman
Mechanical Engineering
Purification of Hemoglobin from Red Blood Cells Using Tangential Flow Filtration
Adviser: Russell Carr

Noah Dumont
Michael Piessens
Jack Schreiber
Mechanical Engineering
David Holmes
Chemical Engineering
Calibration of Oscillatory Environmental Flow Tunnel
Adviser: Drummond Biles

Jacob Easterling
Conor Harrington
Daniel Kirichok
Jonathan Snow
Computer Science
Portal Traffic Tracking System
Adviser: Timothy Carlin

Jeffrey Grant
Chloe Onerhime
Matthew Radzelovage
Mechanical Engineering
Timothy LaPorte
Civil Engineering
Tech 412 Olson Center Giveaway
Adviser: Mohammad Ali Davar Panah

Christopher Howard
Eleonora Olsmats
Engineering Physics
Lillian Soucy
Physics
Manufacturing a Cheaper, Better CubeSat
Advisers: James Clemmons, Marc Lessard

Andrew LePage
Matthias Page
Ocean Engineering
Devan Sack
Civil Engineering
Jacob Zercher
Mathematics
Construction of an Automated Conductivity, Temperature, and Depth Sensor for Sound Speed Computation
Adviser: Val Schmidt

Gillian Martin
Chemistry
Jacqueline Richter
Chemical Engineering
Emma Roberge
Bioengineering
Conductivity Sensor Calibration to Determine Ion Concentrations
Advisers: Drummond Biles, Paula Mouser

Jacob Nardone
Computer Science
Aidan Thayer
Ocean Engineering
Direction of Near Shore Oceanic Waves
Adviser: Drummond Biles

Mathematics & Statistics
Group Leader: Orly Buchbinder

Aylssa Blodgett
Applied Mathematics
Jameela Francis
Mathematics
Thou Shalt Not Pay Retail: A Statistical Analysis of Groupon
Adviser: Michelle Capozzoli

Alyson Caruso
Statistics
Tialyn Eakman
McKenzie Finigan
Nutrition
Evaluating Skin Carotenoid Levels via the Veggie Meter* in College Men and Women
Adviser: Jesse Morrell

Ryan Collette
Mathematics
Predictive Effects of Naive Strategies in an Agent-Based Artificial Stock Market
Adviser: Adam Boucher

Benjamin Fehr
Mathematics, Sustainable Agriculture and Food Systems
Harnessing the Power of Ecosystem Services to Save the Future of Coffee: A Bioeconomic Approach
Adviser: Shady Atallah

Brian Nguyen
Applied Mathematics
Examining Chaos in a Dynamical System: The Double Pendulum
Adviser: John Gibson


**Mechanical Engineering—Competition Teams**

**Group Leader:** Ivaylo Nedyalkov

- Nicholas Andrade
- Ian Baker
- Philip Bangma
- Regan Beaudreau
- Sawyer Blais
- Shelby Chapman
- Mitchell Conley
- Noah Diggins
- Jessi Frechette
- Sebastian Gazzara
- Alexander Gialluca
- Clayton Greig
- Ryan Intveld
- Eric Krueger
- Matthew Kuba
- Sean Lahey
- Jonathan Lamphier
- Mateusz Mroz
- Sean Petersen

**Mechanical Engineering**

- Brian Rainville
- Computer Engineering
- UNH Precision Racing Team
- Adviser: Todd Gross

**Matthew Barricklow**

- Aaron Chapman
- Kimia Fereydooni
- Yanyuan He
- Jonathan Lewis
- Haoming Ni
- Joseph Roylance
- Brennan Smith
- Hongjie Zhang

**Mechanical Engineering**

- UNH AeroCats
- Adviser: Aliireza Ebadi

**Samuel Bean**

- Civil Engineering
- Sarah Mayer
- Alexander Sparks

**Mechanical Engineering**

- Jacob Scarpino
- Environmental Engineering
- 2019 ASHRAE Applied Engineering Challenge
- Advisers: Anthony Puntin, Christopher White, Martin Wosnik

**Mechanical Engineering**

- Ryan Blatti
- Chase Eldredge
- Andrew Hosman
- Silas Johnson
- Tyler Landry
- John Langer
- Charlie Nitschelm
- Collin Stroshine

**Mechanical Engineering**

- Thomas Collins
- Engineering Physics
- The Development and Testing of a Hybrid Rocket Engine
- Adviser: Todd Gross

**Kyle Brewster**

- Michael Goulet
- Jimmy Trinh
- Computer Science

**Aaron Cantara**

- Richard Heath
- Benjamin Henry
- Sean Mackenzie
- Ravi Patel
- Jacob Remick
- Joshua Wallace

**Mechanical Engineering**

- Keith Nason
- Electrical Engineering
- QuadSat Swarm
- Adviser: May-Win Thein

**Brian Brophy**

- Alex Cerce
- Shaun Kerr
- Tristan Lee
- Brian Mitchell
- Alexander Nees
- Timothy Russell
- Tuller Schricker
- Jacob Shaker
- Kevin Shea

**Benjamin Stadnicki**

- Mechanical Engineering
- Extra-Terrestrial Navigation Swarm
- Adviser: May-Win Thein

**Dylan DiBenedetto-Paris**

- Andrew Kostandin
- Jason Lane
- Justin Oliphant
- Katherine Quillen
- Eric Rossi
- Nathan Tetreault

**Mechanical Engineering**

- Andrew Goddu
- Tomas Sandstrom
- Computer Science
- UNH LunaCats: Mars Mining Robot
- Adviser: May-Win Thein

**Mechanical Engineering—Industry**

**Group Leader:** Richard Nash

- Christopher Arling
- Andrew Clark
- Matthew Durant
- Jacob Holton

**Mechanical Engineering**

- Power-Assisted Handcycle for Disabled Cyclists
- Adviser: Ivaylo Nedyalkov

**Elise Baribault-Lee**

- Katelyn Dudley
- Lucas Gagnon
- Eric Schliemann
- Spencer Sullivan
- Nicholas Wheeler

**Mechanical Engineering**

- Automated Machine Tooling Utilizing Mobile Robotics
- Adviser: Jonathan Bicknell

**Andre Chouinard**

- Mechanical Engineering
- Cryogenic Temperature Sensor Calibration Apparatus
- Advisers: Timothy Antaya, Ivaylo Nedyalkov

**Kevin Cole**

- Mechanical Engineering
- EasyCFD: Automated Open Source Workflow for Computational Fluid Dynamics
- Adviser: Ivaylo Nedyalkov
Matthew Collins  
Kyle Lecour  
Mechanical Engineering  
Rotator Cuff Machine  
Adviser: Ivaylo Nedyalkov

Ryan Gaidos  
Russell Marki  
Mechanical Engineering  
OpenFoam Baffle Valve CFD Simulation  
Adviser: Ivaylo Nedyalkov

Michael Grenier  
Mechanical Engineering  
FIRST LEGO League Robot Game Design  
Adviser: Ivaylo Nedyalkov

Alexander Kittler  
Mechanical Engineering  
Automated Pistol Magazine Speed Loader  
Adviser: Ivaylo Nedyalkov

Driss Lakhbal  
Jacob Lantner  
Liem Nguyen  
Mechanical Engineering  
Ergonomic and Adaptive Manual Wheelchair  
Adviser: Igor Tsukrov

Nicholas Spiller  
Mechanical Engineering  
Automated Bearing Sleeve Assembly  
Advisers: Todd Gross, Michael Newsky

Catherine Argue  
Christin Badylak-Reals  
Sean McCloud  
Thomas Perkins  
Mechanical Engineering  
Elizabeth Lahti  
Environmental Engineering  
Evan Silva  
Myles Virgin  
Jonathan Wallace  
Civil Engineering  
ZONE Home  
Advisers: Gregory Chini, Felix Devito, Anthony Puntin

Jonathan Carrigan  
Mechanical Engineering  
Fiber Bragg Grating Annealer  
Adviser: James Krzanowski

Anthony Ciccotelli  
Nathan Frost  
Kyle Horton  
Wunderly Rote  
Mechanical Engineering  
Magnetic Pulse Welding  
Adviser: Brad Kinsey

Daniel Laughlin  
Dominic Puopolo  
Mechanical Engineering  
Pressure Gradient Insert for Flow Physics Facility  
Adviser: Christopher White

Andrew Masters  
Mechanical Engineering  
An Inexpensive Motion Capture System for Indoor Robotic Systems  
Advisers: Sital Khatiwada, May-Win Thein

Lillian Stewart  
Mechanical Engineering  
Deep Trouble: Safe Performance Parameters for Submarine Rescue Units  
Adviser: Igor Tsukrov

Nicholas Velte  
Zhaokai Yin  
Mechanical Engineering  
Truck-Railroad Bridge Collision Prevention System  
Adviser: Todd Gross

Ocean Engineering

Group Leader: Camille Poulin

Ryan Bailey  
Audrey Balaska  
Joseph Steinhauser  
Mechanical Engineering  
Bret Dusseault  
Computer Science  
Brett Hoerner  
Computer Engineering  
Eric Loc  
Electrical Engineering  
Autonomous Surface Vehicle (ASV)  
Advisers: Yuri Rzhanov, May-Win Thein

Julie Berberian  
Katherine Hernandez  
Ryan Kelly  
Mark Torpey  
Logan Yotnakparian  
Mechanical Engineering  
Jennifer Conyers  
River Iannaccone  
Ocean Engineering  
Colin Pressman  
Nicholas Pappas  
Electrical Engineering  
Trevor Lounsbury  
Computer Science  
Underwater Remotely Operated Vehicle (ROV)  
Advisers: Yuri Rzhanov, May-Win Thein

DanaRose Brown  
Ocean Engineering  
Abigail Leclerc  
Biology  
Tracking Marine Organisms and Submerged Objects with an Underwater Video System  
Adviser: Diane Foster

Dennis Cahill  
Tristan Kazo  
Shan Li  
Ocean Engineering  
Acoustic Measurements of Sea Ice  
Adviser: Thomas Weber
Matthew Carey  
Davis Cole  
Christopher Robb  
Mechanical Engineering  
HiCaT—High Speed Cavitation Tunnel Restoration  
Advisers: Ivaylo Nedyalkov, Martin Wosnik

Zachary Davonski  
Kathryn Trubac  
Ocean Engineering  
Submersible Aquaculture Cage Model  
Advisers: Corey Sullivan, M. Robinson Swift

Tyler Thompson  
David Wright  
Mechanical Engineering  
Living Bridge Motion and Load Study  
Adviser: Martin Wosnik

Jordan Loll  
Physics  
Low Cost Spectrometry: 3D Printed, Raspberry-Pi Based, and Simple to Operate  
Advisers: Elena Long, Anthony Rogers

Benjamin MacDonald  
Physics  
Surface Structure Determination of Iridium (111) using Mu LEED-IV Dynamical Analysis via Low Energy Electron Microscopy (LEEM)  
Advisers: Zhongwei Dai, Karsten Pohl

Kellie McGuire  
Physics  
3D-Printed mm-Wave Lenses for DNP Target System  
Adviser: Elena Long

Derrek Perham  
Engineering Physics  
Thermal Management  
Adviser: F. William Hersman

Ryan Williams  
Physics  
Nuclear Magnetic Resonance Using a Low-Cost Vector Network Analyzer  
Adviser: Elena Long

James Yost  
Physics  
The Simulation of Ammonia Irradiation  
Adviser: Karl Slifer

Emma Clarke  
Physics  
Decaying Dark Matter and the Current Cosmological Data Sets  
Adviser: James Ryan

Payson Dunn  
Physics  
Rotating Electric Field Ion Mass Spectrograph Instrument Development  
Adviser: James Clemmons

Isabella Householder  
Physics  
Comparing Energetic Electron Flux during Conjunctions of FIREBIRD and POES  
Adviser: Charles Smith

Thomas Ireland  
Physics  
Improving the Calibration for Photometry by Eliminating Dark Frames and Flat Fields  
Adviser: James Ryan

Evan Jones  
Engineering Physics  
Design and Testing of a Long Range Laser Range Finder  
Adviser: Amy Keesee

Nicholas Larose  
Physics  
UNH Observatory Exoplanet Transit Depth Limit  
Advisers: John Gianforte, James Ryan

Ronny Nguyen  
Physics  
A Study of Matter Outflows from a Binary Neutron Star Merger  
Adviser: Francois Foucart

Tornike Shubitidze  
Physics  
Simulating Lightning Locating Techniques  
Adviser: Ningyu Liu

Alison Swanson  
Physics  
Seismic Data Processing for Naval Intelligence  
Adviser: Joseph Senne

Physics

Group Leader: Ningyu Liu

Tristan Anderson  
Physics  
Synthesis of TEMPO Doped n-Butanol Proton Targets  
Adviser: Karl Slifer

Thomas Collins  
Engineering Physics  
Vaporization of Liquid Helium and Low Temperature Thermometry  
Adviser: Karl Slifer

Tan Dao  
Physics  
Inducing Strain in Atomically Thin Sheets of Molybdenum Disulfide for Catalysis Studies  
Adviser: Karl Slifer

Alana Gudinas  
Physics  
DIST: Defect Identification and Statistics Toolbox for STM Image Analysis  
Adviser: Shawna Hollen

Lucas Jameson  
Physics  
Solidification of Electronics Grade Ammonia  
Adviser: Karl Slifer

Physics/Space Science

Group Leader: Joseph Dwyer

Daniel Abel  
Engineering Physics  
IMAP-Lo Entrance Particle Deflector  
Adviser: Lynn Kistler

Landon Buell  
Physics  
The Search for Narrow Bipolar Events  
Adviser: Ningyu Liu

Anthony Cappuccio  
Physics  
Calibration of the Self-Guiding Chip at the UNH Observatory  
Adviser: John Gianforte

Physics

Group Leader: Shawna Hollen

Kellie McGuire  
Physics  
3D-Printed mm-Wave Lenses for DNP Target System  
Adviser: Elena Long

James Yost  
Physics  
The Simulation of Ammonia Irradiation  
Adviser: Karl Slifer
UNH Manchester URC Computing Technology Projects

Poster Presentations

Wednesday, April 24
4–6 p.m.
Pandora Mill, 1st Floor
88 Commercial St., Manchester

The UNH Manchester Computing Technology program presents its annual Poster Project Presentation Day. This event is the culmination of an academic year effort where students formally present their projects to peers, faculty members, representatives and technical advisers of sponsoring companies, and special guests.

Santiago Gomez
Analytics and Data Science
Analysis of E-Commerce Data
Adviser: Jeremiah Johnson

George Harvey
Computer Science and Entrepreneurship
Internship at BAE Systems Inc.
Adviser: Hong Jin

Aishriya Kaushik
Computer Science
Internship at Colburn Hill Group
Adviser: Hong Jin

Justin Kroh
Computer Information Systems
Internship at CDU Computer Consulting
Adviser: Hong Jin

Mary O’Brien
Computer Science and Entrepreneurship
Redesigning and Implementing My Company’s Website
Adviser: Hong Jin

Jared O’Connell
Computer Information Systems
Projecting Graphics Using Scanning Lasers
Adviser: Howard Eglowstein

Monica Pagliuca
Computer Information Systems
Internship Experience
Adviser: Hong Jin

Naina Prasai
Computer Information Systems
Internship at Intervention Insights
Adviser: Hong Jin

Kevin Richardson
Computer Information Systems
Improving Speech Recognition Using Linear Discriminant Analysis
Adviser: Michael Jonas

Arias Talari
Computer Information Systems
Raspberry Pi Project
Adviser: Howard Eglowstein

Arias Talari
Computer Information Systems
Website Development at Professional Development & Training
Adviser: Hong Jin

John Vey
Computer Information Systems
Computerized Solutions to Modern Hydroponic Farming
Adviser: Michael Jonas

UNH Manchester Undergraduate Research Conference

Poster Presentations

Wednesday, April 24
4–6 p.m.
Pandora Mill, Room 201 and Student Commons
88 Commercial St., Manchester

The UNH URC Poster Presentations showcase students’ independent research and internship projects, service learning activities and civic engagement projects in the learning lab of the city of Manchester.

Marisa Barden
Neuropsychology
In the Meantime: Understanding the Needs of Unsheltered Homeless Families
Adviser: Alison Paglia

Andrew Barton
Biotechnology
Industrial Microbiology Experience
Adviser: Kyle MacLea

Andrew Barton
Biotechnology
Scanning Electron Microscopy
Adviser: Kristen Johnson

Alexis Boulanger
Biological Sciences
Shadowing a Dental Hygienist
Advisers: Patricia Halpin, Stephen Pugh

Brooke Brennan-Mungovan
Biotechnology
Derek Chaput
Biological Sciences
Organic Gardening Methods of Belize
Adviser: Patricia Halpin

Zachary Brewster
Biological Sciences
Adviser: Stephen Pugh

Aaron Broady
Biological Sciences
An Investigation of Environmental and Medical Laboratory Career Fields
Advisers: Patricia Halpin, Stephen Pugh

Derek Chaput
Biological Sciences
Owl Genomics: Extraction Method and Comparative Analysis
Advisers: Sarah Prescott, Stephen Pugh

Brooke Chauncey
Biotechnology
Randi Gravelle
Biological Sciences
Health and Biodiversity of Belize Corals
Adviser: Patricia Halpin
Brooke Chauncey
Biotechnology

Randi Gravelle
Biological Sciences

Knock-Down of ARNTL2 Impairs the Migration and Survival of PANC-1 and BXPC3 Human Pancreatic Cancer Cells
Advisers: Kristen Johnson, Stephen Pugh

Allison Dyke
Neuropsychology

Percutaneous Endoscopic Gastronomy Tubes in Huntington’s Disease
Advisers: Samuel Frank, Daniel Seichepine

Olivia Eaves
Politics and Society

American Public Policy
Adviser: Stephen Pimpare

Mackenzie Evans
Neuropsychology

The Assessment of Evidence-Based Practices through the Observation of Physician Assistants
Adviser: Daniel Seichepine

Hope Gallant Duffy
Alexander Williams

Biotechnology

Mutating S. cerevisiae to Determine Effects on Prion Propagation
Advisers: Kyle MacLea, Stephen Pugh

Emma Ghilardi
Homeland Security, Psychology

Forensic Psychology: Perspectives on Criminal Behavior
Adviser: Nicholas Mian

Summer Golden
Biological Sciences

My Experience as a Phlebotomy Intern at Parkland Medical Center in Derry, New Hampshire
Adviser: Patricia Halpin

Alen Hasanic
Biotechnology

Quality Control Systems Implementation and Regulation—Future Bioprinting Manufacturing
Adviser: Stephen Pugh

Haley Hood-Hunt
Biology

An Investigation of Careers in the Biotechnology Field
Adviser: Stephen Pugh

Jasmine Huffman
Psychology

I Cannot Tell a Lie: Emotional Intelligence as a Predictor of Deceptive Behavior
Adviser: Nicholas Mian

Lauren Iannazzi
Biological Sciences

Genome Sequence and Analysis of an Unsequenced Bacterium
Adviser: Kyle MacLea

Chantal Jennings
Homeland Security

U.S. Domestic Policy
Adviser: Stephen Pimpare

Selma Jusufovic
Politics and Society

Drug Policy in the U.S.
Adviser: Stephen Pimpare

Subhankar KC
Biological Sciences

The Ecology of Cyanobacteria and Its Role in NH Streams
Adviser: Stephen Pugh

Kara Kelly-Martin
American Sign Language (ASL)/English Interpreting

The Relevance of Repetitive Stress Injuries in American Sign Language-English Interpreters: Deaf, Coda, and Hearing
Adviser: Laurie Shaffer

Angelina LaSala
Biological Sciences

A Glimpse into the Role of a Pharmacist
Adviser: Stephen Pugh

Hannah Markham
Biological Sciences

Copies of p53 Gene and Effects of Cancer in Mammals
Advisers: Sarah Prescott, Stephen Pugh

Ajna Masic
Biological Sciences

Explore the Career of a Retail Pharmacist
Adviser: Stephen Pugh

Kellie Mathewson
Biotechnology

Developing an In Vitro Micropropagation Protocol for the Cultivated Strawberry
Advisers: Lise Mahoney, Megan Thompson

Elizabeth Maurais
Biotechnology

Investigation of Effects on Wnt Signaling Downstream of CGRP Pathway by Receptor Antagonist
Adviser: Kristen Johnson

Claudia Maynard
Genome Sequencing of the Extremely Radiation-Resistant Bacterium Deinococcus radiophilus ATCC 27603T
Adviser: Kyle MacLea

Claudia Maynard
Impact of Parent Choices on Patient Adherence to Medical Advice Regarding Child Concussions
Advisers: Nicholas Mian, Stephen Pugh

Alec McAvoy
Psychology

Ava Parr
Vishnu Soni

Neuropsychology

The Effects of Grating Orientation, Color, and Target Depth in Motion Induced Blindness and Binocular Rivalry
Adviser: John Sparrow

Meriah Metzger
Politics and Society

Women and Family Policy
Adviser: Stephen Pimpare

Dianne Moschitta
Biotechnology

Meghana Tadepalli
Biological Sciences

Rainforest Remedies in the Jungles of Belize
Adviser: Patricia Halpin
UNH Manchester URC
Cinema Arts Day

Thursday, April 25
10 a.m.–12 p.m.
Pandora Mill, Room 456
88 Commercial St., Manchester

The UNH Communication Arts program has a production track in which students complete introductory and advanced course work in video production, scriptwriting, audio production, film aesthetics, and documentary production. The student films and scripts illustrate student work at different stages in the curriculum.

Brooke Brennan-Mungovan
Biotechnology
Derek Chaput
Biological Sciences
Belize: The Experience
Adviser: Patricia Halpin

Brooke Chauncey
Biotechnology
Randi Gravelle
Biological Sciences
Five Cats and a Coral Reef
Adviser: Patricia Halpin

Ethan Drew
Communication Arts
Normal
Adviser: Anthony Tenczar

Logan Frye
Communication Arts
Paranoa
Adviser: Anthony Tenczar

Languages, Literatures, & Cultures (LLC) Department Undergraduate Research Conference

Thursday, April 25
12–5 p.m.
Murkland Hall, Room G02

The Department of Languages, Literatures, and Cultures (LLC) hosts an undergraduate research conference comprised of oral presentations, poster presentations, a foreign language award ceremony, and a reception.

Jasmin Bach
Anthropology, Spanish
Open Pedagogy in the Classroom: Creating an Interactive Textbook
Adviser: Holly Cashman
Isabelle Banker
Biomedical Science
An Exploration of Prevalence of Access to Care in Post-Hurricane San Juan, Puerto Rico
Adviser: Lucia Montas

Meredith Byerly
Courtney Phillips
Spanish
Generación 98 en contra de Generación 27 in Spanish Literature
Adviser: Jaume Marti-Olivella

Brigid Carr
International Affairs, Spanish
Poetics of Recovery: Gender and Race Relations in the Aftermath of Natural Disasters in the Greater Caribbean
Adviser: Lori Hopkins

Megan Champagne
Business Administration
Challenges for Latin American Businesses
Adviser: Lucia Montas

Sophia Chun
Political Science, Spanish
Relevance and Representation of Comics in Argentine Culture
Adviser: Daniel Chavez

Kendall Dapprich
Health Management and Policy, Spanish
Ethnicity, Law, and Literature in Latin America
Adviser: Mauricio Pulecio

Catherine Grenier
History, Spanish
Law and Literature in Latin America
Adviser: Mauricio Pulecio

Katherine Heaney
English Teaching, Spanish
Accent Distinctions within the Spanish Language: Focusing on Puerto Rico
Adviser: Holly Cashman

Katherine Heaney
English Teaching, Spanish
Gender Portrayals in Latin American Literature
Adviser: Mauricio Pulecio

Justice Ohanasian
Social Work, Spanish
Exploring Immigration in the Chilean Context
Adviser: Lucia Montas

Courtney Phillips
Spanish
Ethnicity and the Autobiographical in Caribbean Poetry
Adviser: Mauricio Pulecio

The Naked Arts—Creativity Exposed

Act II

Thursday, April 25
12:40–2 p.m.
Paul Creative Arts Center, Museum of Art

This event exposes the inner creative process of artists working in various disciplines. Presenters will describe the process, research, and other creative aspects undertaken to bring an artistic creation from initial inspiration to the stage or gallery. This may include a performance or excerpts from their work to illustrate their creative scholarship.

Daniel Faiella
Fine Arts
The Mind’s Eye and the Eye’s Mind: The Centrality of Observational Memory in Non-Observational Painting
Adviser: Jennifer Moses

Luca Leblanc
Theatre
Historical Theatre for the Modern Audience
Adviser: Deborah Kinghorn

Olivia Noble
English
Above Water
Adviser: Thomas Payne

Juliana Sagliano
Fine Arts
The Psychology of Architecture
Adviser: Jennifer Moses

Philosophy Department
Undergraduate Research Conference

Thursday, April 25
4–7 p.m.
Hamilton Smith Hall, Room 240

The Philosophy URC is a mosaic of concise and meaningful student presentations, varying from such philosophical topics as applied ethics, language theory, and social justice. Standard presentations predominantly last fifteen minutes and are subsequently followed by a brief Q & A period.

Christopher Foster
Electrical Engineering, Philosophy
Planned Obsolescence: Over Damping Progress
Adviser: Jennifer Armstrong

Julian Gale
Justice Studies, Philosophy
The Right before the Good: A Rawlsian Reassessment
Adviser: Ruth Sample

Jennifer Gallagher
History, Philosophy
Ecofeminism and Animal Ethics
Adviser: Jennifer Armstrong

Gregory Kula
Philosophy
Artificial Intelligence: Morality and Personhood
Adviser: Willem deVries

Clio Walsh
Philosophy, Psychology
The Act of Essentializing
Adviser: Charlotte Witt

Dylan Wheeler
Information Technology, Philosophy
The Ability for Artificial Intelligence to Create and Spread Disinformation
Advisers: Betsy Coleman, Nicholas Smith
All Colleges Undergraduate Research Symposium

Welcome Breakfast

Friday, April 26
9–9:30 a.m.
Memorial Union Building, Granite State Room

This informal gathering gives students, faculty and attendees an opportunity to visit with the UNH Provost and each other before experiencing the large university-wide event that follows: the All Colleges Undergraduate Research Symposium.

All Colleges Undergraduate Research Symposium

Oral Presentations, Session A

Friday, April 26
9:30–10:40 a.m.
Memorial Union Building

The All Colleges Undergraduate Research Symposium showcases students from all disciplines. Students present their faculty-mentored projects in one of two interactive poster sessions, or in one of three oral presentation sessions. University-wide participants come from a variety of disciplines.

MUB, Room 233

China: Global Impact and Local Dynamics
Moderator: Jeannie Sowers

Madison Ferreri
International Affairs, Political Science
Chinese Foreign Direct Investments in Africa
Adviser: Smita Lahiri

Jacob Werner
Environmental and Resource Economics, International Affairs
The Role of Communal Shame on Chinese Behavior Modification in the Context of Climate Change
Adviser: Thomas Safford

Weicong Zeng
International Affairs, Political Science
Chinese Investment and Development in Developing Countries
Adviser: Thomas Safford

MUB, Room 302

International Aid and Foreign Investment

Adviser: Lawrence Reardon
Moderator: Lionel Ingram

Jarrod Cobb
International Affairs, Political Science
The Green Leap Forward

Stephanie Langlais
Political Science
The Misuse of Foreign Aid: Misdirection, Corruption, and Terrorism

Rory O’Neil
International Affairs, Political Science
Evaluating the Relationship between Conditionality and Foreign Aid Reliance: A Case Study of Jordan

Hayden Proborowski
International Affairs, Political Science
Shifting Gears: German Investment in the Hungarian Car Industry

James Rudolph
Political Science
Joining the Club: Reform in Saudi Arabia

Austin Sullivan
Communication, Political Science
The Creation of a Foreign Investment Hub in Dubai

MUB, Room 321

Constructing Culture, Gender, and Identity in Europe and Asia
Moderator: Daniel Chavez

Adam Bovie
Communication, International Affairs
Heir to Finn: Comparing Mythological and Modern Narratives of Irish Identity
Adviser: Thomas Safford

Natalie Hannabury
International Affairs, Political Science
Domesticated by the Nation: A Comparative Look into South Korean Masculinity
Adviser: Smita Lahiri

Nkechi Kamalu
Anthropology
Black Culture and Life in Japan: What People Think vs. What It Really Is
Adviser: Thomas Safford

MUB, Room 207

Multidisciplinary Session I: Neuroscience and Psychology
Moderator: Katherine Lee

Morgan Howard
Psychology
Treating Survivors of Sexual Assault with Cognitive Behavioral Therapy: A Review of Treatment Effectiveness, Implications, and Future Directions
Advisers: Katie Edwards, Katherine Lee
Briana Silck
Neuroscience and Behavior, Psychology
The Impact of Empathy on Moral Reasoning Brain Network Activity
Adviser: Robert Ross

Avery Van De Water
Neuroscience and Behavior
Dynamic Causal Modeling of the Speech Network in Stroke-Induced Apraxia of Speech
Adviser: Donald Robin

MUB, Room 203

Multidisciplinary Session II: It's All Greek to Me
Moderator: Harriet Fertik

Jacob Compagna
Classics
Larger Than Life—Putting Giant Beings within Greek Myth on the Map
Adviser: Robert Smith

Connor Liska
Classics
Valens and the Identity of a Late 4th Century Emperor
Adviser: Harriet Fertik

Rachael Moss
Humanities
Liminal States and the Resulting Agency with Regards to Marriage and Death in Ancient Greek Female-Centric Literature and Plays
Advisers: Nicole Ruane, Stephen Trzaskoma, Ann Zimo

Zak Schlichtmann
Classics
Can Foreigners Be Roman Senators? A Comparison of Livy, Claudius, and Tacitus
Adviser: Harriet Fertik

Ari Toumpas
Classics
Mythical Genealogy in Pausanias’ “Description of Greece”
Adviser: Robert Smith

MUB, Room 237

Multidisciplinary Session III: Cows, Carnivores, and Kinesiology
Moderator: Melissa Rodgers

Sharlene Amador
Biochemistry, Molecular and Cellular Biology
Colin McGonagle
Biomedical Science
Epidemiology of Staphylococcus Bacteria from Pets and Wild Carnivores in New England
Adviser: Cheryl Marie Andam

Brittany Royer
Kinesiology
Assessment of High-Velocity Blood Flow Restricted Resistance Training
Adviser: Summer Cook

Jessica Sexton
Animal Science
Effect of Selenomethionine Hydroxy Analog (Se-MHA) in the Form of Selisseo (2% Se) on the Concentration of Selenium in Milk and in Blood for Mid and Late Lactation Holstein Dairy Cows
Adviser: Nancy Whitehouse

Teigue Young
Kinesiology
Measurements of Muscle Thickness by Ultrasound Imaging Following Blood Flow Restricted Exercise
Adviser: Summer Cook

MUB, Room 336

Music, Makers, and Messaging: Selected Papers in Communication
Moderator: Kate Zambon

Ryan Brander
Communication
The Ethos of Punk and the Aging Identity
Adviser: Robert Jackson

Brianna Donovan
Genevieve Grasso
Communication
Social Media and Technology in Maker Culture
Adviser: Lin Zhang

Elena Gregory
Communication
President Trump’s Usage of Hyperbole within the First 2016 Presidential Debate
Adviser: Michelle Gibbons

Hannah Matillano
Communication, Spanish
The Cultural Impact of Studio Ghibli Films on Young Asian-Americans
Adviser: Lin Zhang

Qiqi Yang
Tianshu Zhu
Communication
J-Pop vs. K-Pop: A Comparative Study
Advisers: Lin Zhang, Smita Lahiri

MUB, Room 338

Politics and Policy in Europe
Moderator: Smita Lahiri

Quincy Abramson
International Affairs, Italian Studies
The Dysfunctionality of the Italian Government: Structural and Electoral Issues over the Past Century
Adviser: Thomas Safford

Katherine Gross
International Affairs, Spanish
Youth Unemployment in Spain
Adviser: Smita Lahiri

Andrew Jablonski
French, German, International Affairs
Tackling the Issue of Anti-Semitism in a Modern Germany: Why It’s Happening and How to Prevent It from Spreading Further
Adviser: Thomas Safford

Sherman Spears
International Affairs, Political Science
Germany and the World: The Role of Germany in International Organizations
Adviser: Thomas Safford

Shelby White
International Affairs, Political Science
Strike Culture and Its Impact in France
Adviser: Smita Lahiri
**MUB, Room 330**

**Prevention Innovations Research Center Intern Panel**  
Adviser: Jane Stapleton  
Moderator: Rebecca Ludecke

Alyssa Antman  
Social Work  
*It’s On Us + Proposal*

Sarah Filion  
Biochemistry, Molecular and Cellular Biology  
*Sexual Assault Nurse Examiners (SANE) and the USafeUS Application*

Jennifer Plourde  
Justice Studies, Sociology  
*Incidence of Sexual Assault on College Campuses: Where We Are Now and Where We Can Be*

Alyssa Popielarczyk  
Communication  
*Increasing PIRC Instagram Followers Using Instagram Stories*

Michaela Vivian  
Psychology  
*The Effectiveness of Resident Hall Informational Bulletin Boards to College Students at the University of New Hampshire about the uSafeUS Application*

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**MUB, Room 332**

**Women's and Gender Studies**  
Moderator: Avary Thorne

Emma Chinman  
Women's Studies  
*Geographic Racism and Its Effect on Grocery Gaps and Supermarket Redlining*  
Adviser: Avary Thorne

Dow Drukker  
Sociology  
*The Making of Hegemonic Masculinity: Privileging Whiteness in Western Schools*  
Adviser: Aria Halliday

Evan England  
Sociology  
*Discreet Masc: Non-Heterosexual Male Identities in Urban and Rural New Hampshire*  
Adviser: Peter Welch

Peri Sanechiaro  
English Teaching, Women's Studies  
*Contemporary Masculinity in College Fraternity Men*  
Advisers: Aria Halliday, Siobhan Senier, Peter Welch

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**MUB, Room 340**

**Water, Energy, and Waste around the World**  
Adviser and Moderator: Thomas Safford

Abraham DeMaio  
Civil Engineering, International Affairs  
*The Persistence of Waste Management Issues in Senegal: A Case Study*

Philip McHenry  
Environmental Engineering, International Affairs  
*The Role of Public Perception in Germany’s Energy Turnaround*

Light Mcharo  
Environmental Sciences, International Affairs  
*Household Access to Water in Kinondoni District of Dar es Salaam, Tanzania*

Arseniy Shapovalov  
International Affairs, Marketing  
*Role of Solar in North America’s Transition to a More Reliable Electrical Grid*
MUB, Room 334

Xinjiang, Terrorism, and “Re-Education Camps”
Adviser: Lawrence Reardon
Moderator: Michele Dillon
Isaiah Cornell
Political Science
Cultural Genocide in Xinjiang?

Sean Cotter
Political Science
Re-Educating Uighurs: The Detention of Muslim Minorities in Internment Camps

Sigurdur Geirsson
Political Science
The Causes of Uyghur Persecution

Victor Hugo
Political Science
The Ongoing Genocide

Dominick Morrill
Business Administration, Political Science
Examining the Ethnic Conflict within Xinjiang

Alden Skillings
Political Science
Ethnocentric Views and Religious Repression in Xinjiang

All Colleges Undergraduate Research Symposium

Poster Presentations, Session A

Friday, April 26
9:30–10:40 a.m.
Memorial Union Building,
Granite State Room

The All Colleges Undergraduate Research Symposium showcases students from all disciplines. Students present their faculty-mentored projects in one of two interactive poster sessions, or in one of three oral presentation sessions. University-wide participants come from a variety of disciplines.

Emily Almquist
English Teaching
Engaging Readers beyond the Classroom: Library Programs for Young Adults
Adviser: Laura Smith

John Ball
Krista Mastrogiacomo
Biomedical Science
Exploring the Diversity of Antibiotic-Producing Streptomyces Bacteria from Odiorne Point State Park Salt Marsh and Drowned Forest
Adviser: Cheryl Marie Andam

Juliana Belar
Kinesiology
Hitting the Jackpot: Coaches’ Perceptions of the Most Effective Leadership Qualities in Women’s Collegiate Sport
Adviser: Karen Collins

Aylssa Blodgett
Applied Mathematics

Jameela Francis
Mathematics, Statistics
Thou Shalt Not Pay Retail: A Statistical Analysis of Groupon
Adviser: Michelle Capozzoli

Kailee Brachman-Pappas
Sofia Lombardo
Psychology
Spatial Frequency Effects on Stereo Acuity
Advisers: Andy Kitt, Joseph LaBarre, John Sparrow, William Stine

Shannon Bryant
Communication Sciences and Disorders
Language Performance in Parkinson’s Disease
Adviser: Amy Ramage

Hailey Buck
Political Science
Acceptance of the Female Role in Combat Arms
Adviser: Dante Scala

Nicole Bumbera
Zoology
Distribution and Abundance of Crassostrea virginica Larvae in the Great Bay, NH
Adviser: Jenn Dijkstra

Hannah Burke
Occupational Therapy
Healthy Families: An Investigation into Factors That Promote Robust Family Health for Families Raising Children with Autism Spectrum Disorder
Adviser: Sarah Smith

Austin Butler
Environmental Sciences
Using Permanganate Oxidizable Carbon to Determine the Impact of Organic Dairy Land Management on Soil Fertility
Advisers: Stuart Grandy, Scott Greenwood

Brady Clarke
Marine, Estuarine and Freshwater Biology
Understanding the Future of Oyster Aquaculture in the Great Bay: Applications of the IPCC Anticipated Ocean Acidification Impacts
Adviser: Larry Harris

Marianna Conserva
Anthropology, Communication
Indigenous New Hampshire Collective Collaborative: Education, Activism, and Local Focus
Adviser: Svetlana Peshkova

Kelsey Crowley
Political Science
How to Get Ahead
Adviser: Dante Scala
Sadianne D’Andreti  
Catherine Peraro  
Biomedical Science  

Bridget Peterson  
Neuroscience and Behavior  
The Effects of Contrast Polarity on Motion Induced Blindness  
Advisers: Andy Kitt, Joseph LaBarre, John Sparrow, William Stine, Dan Swift, Erika Wells

John Domenico  
Nursing  
The Relationships of College Students and How They Discuss This with Their Healthcare Provider  
Advisers: Alyssa O’Brien, Joanne Samuels

Maura Donovan  
Sophie Kenny  
Madeline Quigley  
Nutrition  
Understanding Male College Athletes’ Perceptions Related to the Purpose of Body Composition Assessment Using Air Displacement Plethysmography  
Adviser: Kevin Pietro

Faith Farnham  
Nursing  
A Review of Treatments for Gastrointestinal Symptoms in Children with Autism Spectrum Disorder  
Adviser: Elizabeth Humphreys

Crystina Friese  
Anthropology, Justice Studies  
Burning Up and Breaking Up: Understanding Heat-Induced Bone Modifications in a Hungarian Bronze Age Cemetery  
Adviser: Amy Michael

Cynthya Gluck  
English/Journalism  
How Issuing Green Bonds Is Creating Shared Value  
Adviser: Fiona Wilson

Cailee Griffin  
International Affairs, Political Science  
Citizens’ Confidence in Democratic vs. Dictatorial Governments  
Adviser: Dante Scala

Hayden Harrington  
Justice Studies, Political Science  
Do More Gun Laws Increase or Decrease Gun Violence?  
Adviser: Dante Scala

William Johnson  
Political Science  
Political Party Affiliation and U.S. Geography  
Adviser: Dante Scala

Evan Kelly  
Political Science  
Disillusionment in Government Institutions  
Adviser: Dante Scala

Nathaniel Kinsman  
Marine, Estuarine and Freshwater Biology  
“Not So Lice”: Developmental Sampling Methods of Sea Lice on UNH Caged Steelhead Trout (Oncorhynchus mykiss)  
Adviser: Elizabeth Fairchild

Hannah Lambert  
Communication Sciences and Disorders  
The Effect of Income Class on Political Egalitarianism  
Adviser: Dante Scala

Jessica Lee  
Biomedical Science  
A Developmental Study of Apoptotic Markers and Histamine Receptors in Cephalopod Statocysts  
Adviser: David Needle

Samantha Leef  
Biomedical Science  
The Effect of Selenium on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine Luteal Cells  
Adviser: Paul Tsang

Jennika Mannesto  
Human Development and Family Studies  
Stress and Mood as Predictors of Maternal Caregiving in the Preschool Period  
Adviser: Jill Sherman

Claire Martindale  
Nursing  
For Low-Risk Women in the Seacoast of New Hampshire, How Does Geographical Location, Culture and Socioeconomic Status Predict the Availability of Different Birthplaces and/or Providers?  
Adviser: Joanne Samuels

Patrick McCann  
Political Science  
The Economic Impact of Urbanization  
Adviser: Dante Scala

Mackenzie Meier  
Zoology  
Bryde’s Whale Call Structure and Seasonal Distribution in the Equatorial Pacific  
Advisers: Daniel Howard, Jennifer Miksis-Olds

Nicholas Miller  
Biomedical Science  
Effect of Aging on Sensorimotor Processing: An ERP and Response Time Investigation  
Adviser: Ronald Croce

Matthew Morris  
Wildlife and Conservation Biology  
Identifying Dispersal Corridors for the Endangered New England Cottontail  
Advisers: Ethan Belair, Steven Roberge

Curtis Newton  
Political Science  
Incumbency Approval vs. Congressional Approval  
Adviser: Dante Scala

Kenny Nguyen  
Biology  
The Integration of Biology and Calculus: Qualitative Assessment of the Influence of a Biocalculus Course on Students’ Attitudes toward Mathematics  
Adviser: Melissa Aikens
<table>
<thead>
<tr>
<th>Name</th>
<th>Major</th>
<th>Project</th>
<th>Adviser(s)</th>
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<tbody>
<tr>
<td>Hannah Nordstrom</td>
<td>Psychology</td>
<td>Investigating How the Perception of School Climate Factors Influences Bystander Behaviors of High School Students during Instances of Dating and Sexual Violence</td>
<td>Victoria Banyard</td>
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<td>Sarah Phelps</td>
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<td>Leaders in the Making: The Development of Skills and Strategies of an Effective Leader in Women’s Collegiate Sport</td>
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<td>Rebecca Philibert</td>
<td>Anthropology, Earth Sciences</td>
<td>Neodymium and Trace Element Analysis of Clays from the Belize River Valley</td>
<td>Julia Bryce, Maria Fahnstock, Eleanor Harrison-Buck</td>
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<td>Chloe Pilgrim</td>
<td>Neuroscience and Behavior, Psychology</td>
<td>Differential Effects of Acute vs. Chronic Stress on Serotonin and Corticosterone in Female Rats</td>
<td>Robert Drugan</td>
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<td>Alexander Pimentel</td>
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<td>Examining the Effect of Retrograde Neurotoxin in Terminating Cell Projections in the Cortex and Its Impact on Originating Cell Bodies in the Locus Coeruleus</td>
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<td>Casey Poirier</td>
<td>Biology</td>
<td>Quantifying Movement Agreement between Therapist and Patient</td>
<td>Thomas Foxall, Dain LaRoche</td>
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<td>Ryan Puterbaugh</td>
<td>Biochemistry, Molecular and Cellular Biology Biological Applications of NMR Spectroscopy</td>
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<td>Krisztina Varga</td>
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<td>Marisa Rafal</td>
<td>Human Development and Family Studies</td>
<td>An Analysis of Extracurricular Participation: Effects on Child Development and Family Dynamics</td>
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<td>Political Analysis of Attitudes towards the Press</td>
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<td>Sarah Rosatone</td>
<td>Educational Studies, Social Work</td>
<td>Youth Disability Victimization: An Analysis of the Youth Bias Victimization Questionnaire (YBVQ)</td>
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<td>Lauren Schoeller</td>
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<td>Comparison of Muscle Quality Measurements across Varying Types of Muscle Contractions in Young and Older Adults</td>
<td>Summer Cook</td>
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<td>Jemina Shepherd</td>
<td>Economics</td>
<td>The Impact of Technical Economic Language on Students’ Understanding</td>
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<td>Effects of Dams on Water Quality</td>
<td>Wilfred Wollheim</td>
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<td>Information Technology, Philosophy</td>
<td>The Ability for Artificial Intelligence to Create and Spread Disinformation</td>
<td>Betsy Coleman, Nicholas Smith</td>
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<td>Kylee Wrath</td>
<td>Biomedical Science</td>
<td>Diagnostic Findings in 140 Marine Mammals Examined at the New Hampshire Veterinary Diagnostic Laboratory 2009-2018</td>
<td>David Needle</td>
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<td>Dania Zaiter</td>
<td>Genetics</td>
<td>Exploring the Potential of Marine Actinobacteria as Source of Novel Antibiotics</td>
<td>Cheryl Marie Andam</td>
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<td>Margaret Champagne</td>
<td>English</td>
<td>Fashion and Lifestyle Blog</td>
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<td>Walter Collier</td>
<td>Information Systems and Business Analytics NH Net-Zero Homes</td>
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<td>Michaella Conery</td>
<td>English</td>
<td>Women in Running</td>
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</table>
Ryan Donahue  
English  
*English Majors in the Business Field*

Jace Eaton  
Neuroscience and Behavior  
*CBT for College Students: A Website*

Ryen Gallagher  
Recreation Management and Policy  
*Let’s Talk Quality Control in Health Care*

Grace Hanley  
English/Journalism  
*Work in Progress: A Blog*

Elizabeth O’Connor  
English  
*Book News and Resources for Young Readers: A Website*

Kathleen Smith  
English  
*LGBTQ+ Representation in the Media*

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**MUB, Granite State Room**

**Sustainability Dual Majors**

Emily Bean  
Economics, Sustainability

Jodi Beanson  
Anthropology, Sustainability

Timothy Readdean  
Marine, Estuarine and Freshwater Biology, Sustainability

Casey Shea  
Sustainability, Women’s Studies

Daniel Sheldon  
Accounting, Sustainability  
Zero Waste  
Adviser: Vanessa Levesque

Jacob Beanland  
Geography, Sustainability

Caitlin Burnett  
Anthropology, Sustainability

Cassidy Yates  
Environmental Engineering, Sustainability  
*Sustainability in Business: The B Corp Certification Process*  
Adviser: Vanessa Levesque

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**All Colleges Undergraduate Research Symposium**

**Oral Presentations, Session B**

**Friday, April 26**

10:50 a.m.–12 p.m.  
**Memorial Union Building**

The All Colleges Undergraduate Research Symposium showcases students from all disciplines. Students present their faculty-mentored projects in one of two interactive poster sessions, or in one of three oral presentation sessions. University-wide participants come from a variety of disciplines.
MUB, Room 338

Art, Architecture, and Aging in Asia and Europe
Moderator: Smita Lahiri
Veronica Chambers-O’Bryan
Information Technology, International Affairs
Japan’s Social Stigmas and the Declining Population
Adviser: Thomas Safford

Victoria Cortez
International Affairs, International Business and Economics
Building Catalonia: How the Architecture of Catalonia Demonstrates a Separate Cultural Identity
Adviser: Smita Lahiri

Carissa Mak
Civil Engineering, International Affairs
Scottish Castles Past and Present
Adviser: Thomas Safford

Drucilla Sargent
Art: Art History, International Affairs
Iconography of Florence and the Identity of David
Adviser: Thomas Safford

MUB, Room 302

Challenging the Strategic Balance in Regional Hot Spots
Adviser: Lawrence Reardon
Moderator: Lionel Ingram

Tristen Bianco
Political Science
Sino-Pakistani Arms Trade: Implications for U.S. Security Strategy in Central Asia
Adviser: Michael Soha

Parker Hudson
Political Science
Playing the Blame Game: North Korea as a Global and Domestic Threat

Patrick McCann
Political Science
Territorial Disputes in the East China Sea

Christopher Riley
Political Science
U.S. Economic Strategy in the Syrian Civil War

Weicong Zeng
International Affairs, Political Science
The Benign Chinese Expansion
Adviser: Michelle Gibbons

MUB, Room 336

Commentary: Published Papers in Communication
Moderator: R. Michael Jackson
Hannah Baum
Communication
“We Are the Crystal Gems”: Themes of Identity within Steven Universe
Adviser: Joseph Terry

Emily Bourne
Communication
Nike’s Song and Music Video
Adviser: Joseph Terry

Taylor Chieffalo
Communication
Street Art: A Crime or a Movement
Adviser: Kate Zambon

Kristiana Osborne
Communication
How a Generation Is Changing a Century-Long Stigma
Adviser: Michael Soha

Grace Smith
Communication
Living Life on the Fringe
Adviser: Michael Soha

MUB, Room 340

Challenges and Opportunities in International Development
Moderator: Thomas Safford

Christopher Cota
International Affairs, Political Science
Energy Governance in the European Union: Goals and Policies
Adviser: Smita Lahiri

Amada Guapisaca
Economics, International Affairs
How the Other Half Lives: How Brazil Created the Favela Crisis
Adviser: Thomas Safford
Kali Mondor  
Communication  
Sports Fanatics in Action: How Language and Social Interaction Concepts Apply to Talk about Sports  
Adviser: Edward Reynolds

Nicole Paterson  
Communication  
One Nation, Successfully Divisible: American Mythology in Political Rhetoric  
Adviser: James Farrell

MUB, Room 207  
Multidisciplinary Session IV: Politics, AI, and Storytelling  
Moderator: Jeanne Sokołowski  
Nelson Idahosa  
Political Science  
Did Gerrymandering Affect the 2016 Congressional Elections and Did Gerrymandering Suppress the Electorate’s Vote in the 2016 Congressional Election?  
Adviser: Andrew Smith

Casey Kimball-Marfongelli  
English  
A Semester of Storytelling  
Adviser: Jaed Coffin

Elizabeth O’Connor  
English  
A Study of Crafting Contemporary Short Stories  
Adviser: Jaed Coffin

Dylan Wheeler  
Information Technology, Philosophy  
The Ability for Artificial Intelligence to Create and Spread Disinformation  
Advisers: Betsy Coleman, Nicholas Smith

MUB, Room 237  
Multidisciplinary Session VI: Explorations in Sustainability and Service  
Moderator: Faina Bukher  
Brady Clarke  
Marine, Estuarine and Freshwater Biology  
Understanding the Future of Oyster Aquaculture in the Great Bay: Applications of the IPCC Anticipated Ocean Acidification Impacts  
Adviser: Larry Harris

Jennah Landgraf  
Environmental Engineering  
PepsiCo as a Model for Sustainable Business  
Adviser: Fiona Wilson

Hailey Raudat  
Psychology  
How Perceived Neighborhood Support Relates to Adolescent Community Service Motivation  
Adviser: Andrew Rizzo

MUB, Theatre I  
Multidisciplinary Session VII: Clinical Aspects of Health and Fitness  
Moderator: Vidya Sundar  
Victoria Bandera  
Kinesiology  
Functional Demand and Maximal Strength in Older Female Cancer Survivors Who Have Completed Cancer Treatment  
Adviser: Dain LaRoche
John Domenico  
Nursing  
The Relationships of College Students and How They Discuss This with Their Healthcare Provider  
Advisers: Alyssa O’Brien, Joanne Samuels

Francis Gesel  
Kinesiology  
Effects of Acute Static and Ballistic Stretching on Muscle-Tendon Unit Stiffness, Work Absorption, Strength, Power, and Countermovement Vertical Jump Performance  
Adviser: Dain LaRoche

Taela Leek  
Nursing  
Evidenced Based Practice in NH Hospitals: Therapeutic Hypothermia  
Advisers: Elizabeth Evans, Joanne Samuels

Emily Morenz  
Kinesiology  
Effects of Acute Static and Ballistic Stretching on Countermovement Vertical Jump Performance  
Adviser: Dain LaRoche

Kimberly Reilly  
Occupational Therapy  
When They're in My Arms: An Evaluation of Occupational Risk Factors among Childcare Professionals  
Adviser: Vidyalakshmi Sundar

MUB, Room 233  
Nationalism and Conflict: Russia/Ukraine, Hungary, and Israel/Palestine  
Moderator: Jeannie Sowers

Alexander Dicker  
History, International Affairs  
How Russia Has Defined Modern Ukrainian Nationalism  
Adviser: Smita Lahiri

Brianna Kretkowski  
History, International Affairs  
U.S. Sanctions on the Russian Federation  
Adviser: Smita Lahiri

Arianna Lemieux  
International Affairs, Russian  
The Portrayal of Vladimir Putin in Russian Media  
Adviser: Smita Lahiri

Schuyler Vaillancourt  
Economics, International Affairs  
U.S. Foreign Aid in the Israel-Palestine Conflict  
Adviser: Smita Lahiri

Marinda Weaver  
International Affairs, Justice Studies, Psychology  
Women and Hungarian Nationalism Post-Soviet Occupation  
Adviser: Thomas Safford

MUB, Room 334  
Problems of Asian Economic and Political Development

Adviser: Lawrence Reardon  
Moderator: Peter Carey

John Ahonen  
Political Science  
Challenges of Late Economic Development

Christopher Cota  
International Affairs, Political Science  
China’s Energy Policy: Reducing Carbon Emissions While Maintaining Production?

Kimberly Gravlin  
French, Political Science  
Fixing China’s Gender Imbalance

Aristedes Manthous  
International Affairs, Political Science  
Reconsidering the Legacy of Mao Zedong

Alden Skillings  
Political Science  
The Sinification of Asia

James Thompson  
Political Science  
China’s Infrastructure Development: Too Much of a Good Thing

All Colleges  
Undergraduate Research Symposium

Poster Presentations, Session B

Friday, April 26  
10:50 a.m.–12 p.m.  
Memorial Union Building, Granite State Room

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Franchesca Adams  
Health Management and Policy  
At-Home Care for Acutely Ill Adults  
Adviser: Anne Jamieson

Marie Akiki  
Biomedical Science  
Localization of the 37a Isoform on Presynaptic N-Type Calcium Channels  
Adviser: Arturo Andrade

Sharlene Amador  
Biochemistry, Molecular and Cellular Biology

Colin McGonagle  
Biomedical Science  
Epidemiology of Staphylococcus Bacteria from Pets and Wild Carnivores in New England  
Adviser: Cheryl Marie Andam

Meredith Baker  
Human Development and Family Studies, Psychology

Lauren Flynn  
Human Development and Family Studies, Psychology  
Unhappy Hour: Testing a Theoretical Model of Gender-Based Violence Prevention among College Students  
Adviser: Emily Waterman
<table>
<thead>
<tr>
<th>Morgan Baumgartner</th>
<th>Biomedical Science</th>
<th>The Student-Athlete Wellness Study: An Analysis of Sleep, Diet Quality, and Perceived Stress as Risk Factors for Injury in Division I Student-Athletes</th>
<th>Advisor: Jesse Morrell</th>
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<td>Emily Berry</td>
<td>Genetics</td>
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<td>Aylssa Blodgett</td>
<td>Applied Mathematics</td>
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<tr>
<td>Allison Boldis</td>
<td>Communication Sciences and Disorders</td>
<td>Prosody in Children with Autism</td>
<td>Advisor: Jill Thorson</td>
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<td>Riley Boss</td>
<td>Anthropology</td>
<td>Preserving a Lost Village: Ground Truthing Residual Foundations from the Great Flood of 1938 in East Weare, New Hampshire</td>
<td>Advisor: Meghan Howey</td>
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<td>Julian Brown</td>
<td>Biomedical Science</td>
<td>Functional Characterization of CACHD1, a Protein Closely Related to the Gabapentinoid Receptor α2δ</td>
<td>Advisor: Arturo Andrade</td>
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<td>Darian Tilton</td>
<td>Biology</td>
<td>Cell Line Authentication Using Short Sequence Repeats</td>
<td>Advisor: W. Kelley Thomas</td>
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<td>Alyson Caruso</td>
<td>Statistics</td>
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<td>Tialyn Eakman</td>
<td>Nutrition</td>
<td>Evaluating Skin Carotenoid Levels via the Veggie Meter* in College Men and Women</td>
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<td>Laura Clancy</td>
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<td>Matthew Cook</td>
<td>Mathematics</td>
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<td>Advisor: Michele Dillon</td>
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<td>Did You See It? How Affective Images Presented outside of Awareness Alter Perception</td>
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<td>Alicia Guzman</td>
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<td>Mechanical Engineering</td>
<td>OpenFoam Baffle Valve CFD Simulation</td>
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<td>Russell Marki</td>
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<td>Influence of Soil Salinity on Plant Community Distribution on Appledore Island, ME</td>
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Neuroscience and Behavior  
Dissecting Cell-Specific Roles of a2d-Proteins in Seizure-Like Activity of Drosophila melanogaster  
Adviser: Arturo Andrade

Alyssa Greig  
Biomedical Science  
Assessing Correlates of Farmer Behavior to Prevent Harmful Algal Blooms (HABs): A Multi-Level Analysis  
Adviser: Semra Aytur

Gordon Guilmette  
International Affairs, Political Science  
Policy over Party Loyalty  
Adviser: Dante Scala

Anna Haber  
Genetics  
Understanding the Role of Polyamines in Rice under Drought and Salt Stress  
Adviser: Subhash Minocha

Erik Harrington  
Kinesiology  
Acute Effects of a Quick Service Meal High in Fat, Sodium and Cholesterol on Arterial Stiffness  
Adviser: Timothy Quinn

Taylor Hennas  
Environmental Sciences  
Global Meta-Analysis of Nitrogen Cycling Dynamics in Agricultural Soil  
Adviser: Stuart Grandy

Hazuki Horiuchi  
Nursing  
The Beauty of Childbirth: Learning from the Work of Japanese Midwives  
Adviser: Joanne Samuels

Brooke Howland  
Biochemistry, Molecular and Cellular Biology  
An Emerging Seafood-Borne Pathogen: Sequence Type 36 Vibrio parahaemolyticus  
Adviser: Cheryl Whistler

Thomas Ireland  
Physics  
Improving the Calibration for Photometry by Eliminating Dark Frames and Flat Fields  
Adviser: James Ryan

Kayla Kenney  
Communication Sciences and Disorders  
Diving Deeper into the Specific Relationship between Pragmatic Communication and Executive Functions in Three Individuals with TBI  
Adviser: Kathryn Greenslade

Stacy Kenney  
Communication Sciences and Disorders  
The Relationship between Verbal Fluency and Connected Language in Probable Alzheimer's Disease  
Adviser: Amy Ramage

Sonthaya Lacy  
Neuroscience and Behavior  
Psychology  
Samantha Niven  
Biomedical Science  
Can How You Think about Emotions Affect Your Perception of Others' Emotions?  
Adviser: Jolie Wormwood

Hannah Lambert  
Political Science  
The Effect of Income Class on Political Egalitarianism  
Adviser: Dante Scala

Delana Lane  
International Affairs, Political Science  
The Meaningful Socioeconomic Impacts of Marijuana Policy Liberalization  
Adviser: Dante Scala

Ashley LeBlanc  
Health Management and Policy  
Examining E-Cigarette Use and Perceptions of Use of New Hampshire High School and College Students  
Adviser: Ann-Marie Matteucci

Taylor Lindsay  
Environmental Sciences  
Experiences in International, Multidisciplinary Research for Undergraduate Scientists  
Adviser: Andrew Coppens

Victoria Madore  
Neuroscience and Behavior  
Investigation of Individual Differences in Demand for Methamphetamine  
Adviser: Sergios Charntikov

Alexis Maillet  
Biomedical Science  
Comparative Analysis of Sexually Transmitted Diseases and Infections  
Adviser: Mary Lockwood

Heidi Martin  
Psychology  
I Just Don't Get You: How Low Personal Intelligence Interferes with Communication in Romantic Relationships  
Adviser: John Mayer

Alexander McGinn  
Environmental Sciences  
Methodology of Quantifying PCB Presence in Electrical Generator Insulating Oil  
Adviser: John Aber

Christian Merheb  
Political Science  
Exploring Shifts in Presidential Campaign Strategy after Losses in the New Hampshire Primary  
Adviser: Dante Scala

Tara Morong  
Neuroscience and Behavior  
Individual Differences in Responding to Bupropion or Varenicline in a Preclinical Model of Nicotine Self-Administration Using Female Rats  
Adviser: Sergios Charntikov

Shannon Murdock  
Nursing  
Spina Bifida and Clean Intermittent Catheterization: A Retrospective Study of Lesion Type and Lesion Location  
Advisers: Bridget Logan, Joanne Samuels

Abigail Palin  
Biochemistry, Molecular and Cellular Biology  
Comparing the Effects of Serum Starvation on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine and Human Ovarian Granulosa Cells  
Adviser: Paul Tsang
Trey Patno  
Biochemistry, Molecular and Cellular Biology  
Does Basic Fibroblastic Growth Factor (FGF2) Regulate the Expression of the Angiogenic Inducer (CCN1) in Bovine Luteal Cells?  
Adviser: Paul Tsang

Samantha Pepe  
Communication Sciences and Disorders  
Storytelling Study: A Look at the Impact of Prosody on Visual-Attention and Comprehension Levels for Preschool Aged Children during a Read-Aloud  
Adviser: Jill Thorson

Alexander Pimentel  
Neuroscience and Behavior  
Examining the Effect of Retrograde Neurotoxin in Terminating Cell Projections in the Cortex and Its Impact on Originating Cell Bodies in the Locus Coeruleus  
Adviser: Jill McGaughy

Patrick Poulin  
Geography  
UNH Borelog Project—Campus Planning  
Adviser: Shawn Herrick

Marissa Prizio  
Biomedical Science  
Spay and Neuter Rates at the Cocheco Valley Humane Society over the Past Five Years  
Adviser: Sarah Proctor

Marisa Rafal  
Human Development and Family Studies  
An Analysis of UNH Water Usage: Data Visualization, Management Comparisons, and Reduction Recommendations  
Adviser: Cameron Wake

Liam Riehs  
Political Science  
The Effect Environmental Costs Have on GDP  
Adviser: Dante Scala

Caitlin Rosenbaum  
Health Management and Policy  
MassHealth Medicaid ACO: An Analysis of Social Determinants of Health  
Adviser: Semra Aytur

Kara Rzasa  
Biochemistry, Molecular and Cellular Biology  
Developing Galleria mellonella as an Infection Model for Virulent Mutations in Vibrio parahaemolyticus  
Adviser: Cheryl Whistler

Walkania Santos Regaldo  
Biomedical Science  
Finding Alternative Ways to Synthesize Precursors for Small Molecule Inhibitors of β-lactamase Enzymes  
Advisers: Marc Boudreau, Deisy Pena-Romero

Heidi Simoneau  
Environmental Sciences, Justice Studies  
Effects of Dams on Water Quality  
Adviser: Wilfred Wollheim

Ryan Spelman  
Biology  
Effect of Plant Cultivar on Efficacy of Biochemical Inducers for Suppression of Plant Diseases  
Adviser: Anissa Poleatewich

Laura Tilton  
Psychology  
Mood during Reading Influences Rate of Personal Connections  
Adviser: Caitlin Mills

Avery Van De Water  
Neuroscience and Behavior  
Dynamic Causal Modeling of the Speech Network in Stroke-Induced Apraxia of Speech  
Adviser: Donald Robin

Sean Vigeant  
Biomedical Science  
Bioinformatic Analysis of Staphylococcus pseudintermedius Genomes, an Important Bacterial Pathogen in Pet Animals  
Adviser: Cheryl Marie Andam

Sarah Wildes  
Communication Sciences and Disorders  
Positive and Negative Aspects of Youth Football Participation in Relation to Socio-Emotional Wellbeing: A Systematic Review  
Advisers: Amy Ramage, Erik Swartz

Yining Zhang  
Political Science  
A Declining Willingness to Have Children  
Adviser: Dante Scala

MUB, Granite State Room  
Advanced Technical Writing  
Adviser: Molly Campbell

Emily Benoit  
English Literature  
Exploring Demographics and Trends in True Crime Content

Elizabeth Buford  
Biochemistry, Molecular and Cellular Biology  
All You Need to Know about Forensic Science: A Website

Jacob Gabor  
English  
Giving Undergraduate Students Tips on Their Journey to Law School: A Website

Cassie Haskell  
English/Journalism  
Why You Should Support Local Business

Sierra Hoes  
Biochemistry, Molecular and Cellular Biology  
Oral Health and the College Lifestyle: A Website

Samantha Lulka  
Business Administration  
Guide for LGBT+ Catholics: A Website

Madelyn O’Leary  
English  
Search Engine Optimization for Small Businesses

Scott Razzetti  
Finance  
Optimizing the Value of Tuition and Its Allocation: A Website for You and Me

Carly Scata  
English Literature  
Entering the Workplace after Rehabilitation/Substance Abuse: A Website
Kevin Silk
English
*Teaching Young Professionals How to Save Their Money: A Website*

Kenley Stevenson
English
*Transitioning to a Vegan Diet in College*

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**All Colleges Undergraduate Research Symposium**

**Oral Presentations, Session C**

**Friday, April 26**
12:15–1:25 p.m.
Memorial Union Building

The All Colleges Undergraduate Research Symposium showcases students from all disciplines. Students present their faculty-mentored projects in one of two interactive poster sessions, or in one of three oral presentation sessions. University-wide participants come from a variety of disciplines.

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**MUB, Room 233**

**Challenges to China’s Industrial Sector**

Adviser: Lawrence Reardon
Moderators: Katie Clark, Madeleine Rousseau

Neil Cederberg
Political Science
*Why Does China Produce Cheap Materials? A Look at China’s Steel Industry*

Ian Ffrench
Philosophy, Political Science
*Why Do Countries Experience Income Inequalities?*

Zhenxiang Liu
History
*China’s Ailing Manufacturing Sector*

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**MUB, Room 302**

**Chinese Censorship and Human Rights**

Adviser: Lawrence Reardon
Moderator: Jake Cianci

Yongyao Peng
International Affairs, Political Science
*The Grand Strategy: Chinese One Belt One Road Initiative*

Yining Zhang
Political Science
*The Unbalanced Economic Development in China: A Comparative Analysis of Xinjiang and Shanghai*

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**MUB, Room 330**

**Espionage, Power, and Conflict**

Moderator: Ryan Clasby

Tristen Bianco
Political Science
*The U.S. Intelligence Community’s Response to Chinese Economic Espionage*
Adviser: Lawrence Reardon

Kevin Condict
Political Science
*China’s Raw Material Supplies and Territorial Disputes*
Adviser: Lawrence Reardon

Victoria Franks
Justice Studies, Political Science
*The Effect of Immigration on Economic Globalization*
Adviser: Alynna Lyon

Eric McNeilly
Economics, Political Science
*Nationalism, Power and Support: Failing Sanctions*
Adviser: Lawrence Reardon

Christian Silva
Political Science
*The Lasting Influence of the Shafer Commission Report*
Adviser: Mary Malone

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**MUB, Room 336**

**Conversation Analysis in Communication**

Adviser and Moderator: Edward Reynolds

Adam Bovie
Communication, International Affairs
*More Than a Feeling: “I Feel Like” as an Epistemic Hedge*

Jordan Fleckenstein
Communication
*Laughter as an Action*

Tia Floyd
Communication, Ecogastronomy
*Gaze and Glancing in a Judged Classroom Situation: A Closer Look into an In-Class Experiment*

Brooke Marston
Communication
*Evaluation and Emotional Alignment through Response Cries*

Matthew Santangelo
Communication
*It’s Like, a Highlighter*
Matthew Stebbins  
Political Science  
How the United States Became a Global Hegemon  
Adviser: Lawrence Reardon

MUB, Room 237

Multidisciplinary Session VIII:  
Studies in Science and Wellness
Moderator: Jesse Morrell

Morgan Baumgartner  
Biomedical Science  
The Student-Athlete Wellness Study:  
An Analysis of Sleep, Diet Quality, and Perceived Stress as Risk Factors for Injury in Division I Student-Athletes  
Adviser: Jesse Morrell

Alana Gudinas  
Physics  
3D Printing Scintillation Particle Detectors  
Adviser: Elena Long

Kara Kelly-Martin  
American Sign Language (ASL)/English Interpreting  
The Relevance of Repetitive Stress Injuries in American Sign Language-English Interpreters: Deaf, Coda, and Hearing  
Adviser: Laurie Shaffer

Michael Moheban  
Chemistry  
Synthesis of Inorganic N-Heterocyclic Carbene Derivatives for Transition Metal Catalysis  
Adviser: Christine Caputo

Sean Vigeant  
Biomedical Science  
Bioinformatic Analysis of Staphylococcus pseudintermedius Genomes, an Important Bacterial Pathogen in Pet Animals  
Adviser: Cheryl Marie Andam

MUB, Room 340

Multidisciplinary Session IX:  
Explorations of Gender, Leadership, Intention, Corruption
Moderator: Kristen Butterfield

Charles Carter  
Accounting  
Jill Durkin  
Undeclared  
Allison MacPhee  
Information Systems and Business Analytics  
Brandi McKay  
Information Systems and Business Analytics, Management  
Benjamin Patt  
Finance, Philosophy  
Johanna Rewucki  
Marketing  
Authentic Leadership: What Does Gender Have to Do with It?  
Adviser: Betty Woodman

Erin Gaston  
Biology  
Nightingale’s Shadows: The Hidden Women Who Saved Lives during the Crimean War  
Adviser: Jan Golinski

Eleonora Giovine  
Italian Studies, Psychology  
Ross Jones  
Sarah Russo  
Psychology  
Intent versus Reality: Do Our Intentions Match Our Actions in Sexual Assault Disclosure Cases?  
Adviser: Emily Waterman

Benjamin McGrath  
Political Science  
The Cost of Corruption  
Adviser: Alyynna Lyon

MUB, Room 338

Multidisciplinary Session X:  
Diversity, Multiculturalism, and Literature
Moderator: Kate Gaudet

Jack Farrell  
English Literature, Philosophy  
Seamus Heaney, Robert Frost, and Land  
Adviser: Martin McKinsey

Angelique Georges  
Sociology  
Communicative Adaptations: A Focus on Minorities in Post-Secondary Institutions  
Adviser: Catherine Moran

Taylor Lindsay  
Environmental Sciences  
Experiences in International, Multidisciplinary Research for Undergraduate Scientists  
Adviser: Andrew Coppens

Madison Marshall  
English  
Seamus Heaney’s Bog Bodies  
Adviser: Martin McKinsey

MUB, Room 203

Technical Methods in Analyzing a Bioarchaeological Collection
Adviser and Moderator: Amy Michael

Katherine Dubois  
Neuroscience and Behavior  
Strontium (Sr) Isotope Analysis in the Caesarea Maritima Burials

Katherine Dubois  
Neuroscience and Behavior  
Lilia Vinskus  
Biochemistry, Molecular and Cellular Biology  
Visualizing the Past: DNA Analysis and Forensic Facial Approximation of the Caesarea Maritima Burials
Peter T. Paul College of Business and Economics Undergraduate Research Conference

Poster Presentations

Friday, April 26
9 a.m.–2:30 p.m.
Paul College

Through original research and valuable guidance from mentors, this event helps Paul College students gain deeper academic knowledge as well as professional experience. This URC event includes poster presentations, oral presentations, and feedback from judges.

Paul College, Great Hall
9–10:30 a.m.

B.S. & B.A. Economics Poster Presentations

Nooran Alhamdan
Economics, Political Science
The Rentier State: Does Rentierism Hinder Democracy?
Adviser: Aziz Saglam

Griffin Asbury
Georgio Papakonstantinou
Economics
William Tessier
Economics, Finance
Does Climate Change Have an Adverse Effect on the Agricultural Market?
Adviser: Reagan Baughman

Peter Brown
Economics
Economic Impact of the NH Nursing Shortage
Adviser: Aziz Saglam

Brian Brown
Economics
Labor Force Participation, Productivity and GDP Growth
Adviser: Aziz Saglam

Riley Campbell
Economics
Social Costs of Legalization of Recreational Marijuana
Adviser: Aziz Saglam

Melinda Chan
Economics
Import of Manufactured Goods and Carbon Emissions per Capita
Adviser: Aziz Saglam

Maxwell Coutu
Max Yardumian
Economics
Eric McNeil
Economics, Political Science
Patents and Intellectual Property Rights Effects on Innovation
Adviser: Reagan Baughman

Catherine Craig
Economics
How Well Do Wages Follow Productivity Growth?
Adviser: Aziz Saglam

Elizabeth Cunningham
Economics
Gross Domestic Product and Gross National Happiness
Adviser: Aziz Saglam

Qinyuan Ding
Dylan Rose
Timothy Whitehead
Economics
Immigration Effect on Wages/Employment of Native Workers in the U.S.
Adviser: Reagan Baughman

Madeleine Ejdys
Economics, Music
Does Welfare Make Unemployment Worse?
Adviser: Aziz Saglam

Rowan Ferrier
Economics, Political Science
Oil: Blessing or Curse?
Adviser: Aziz Saglam

Alexis Gray
Economics
The Determinants of Student College Debt
Adviser: Aziz Saglam
Paul Haley
Economics
Do Higher Taxes Reduce Smoking?
Adviser: Aziz Saglam

Zachary Hansler
Bowen Luo
Jon Sakelaris
Economics
Effect of the North American Free Trade Agreement on the U.S. GDP
Adviser: Reagan Baughman

Xiangshu Hao
Economics
Tax Reform and Economic Growth
Adviser: Aziz Saglam

Troy Hartmann
Ramsey King
Anuj Patel
Devon Sprague
Economics
The Primary Causes of the Greek Economic Crisis
Adviser: Reagan Baughman

Megan Hartnett
Economics, History
Psycho-Pharmaceuticals and Crime Trends
Adviser: Aziz Saglam

Duncan Holland
Economics
Analysis of the Factors Influencing Household Consumption
Adviser: Aziz Saglam

Tyler Hoyle
Economics, International Affairs
Connor Smith
Wonjune Song
Economics
The Effects of Cigarette Taxes on Smoking
Adviser: Reagan Baughman

Scott Jakubowicz
Michael Retrum
Economics, Finance
Adam McIlveen
Economics
Determinants of Variation in Stock Prices
Adviser: Reagan Baughman

Charles Lehoux
David MacDonald
Yi Wu
Economics
The Effects of Education Level on Wage
Adviser: Reagan Baughman

Thomas Maguire
Jordan Sock
Gia Tuccinardi
Economics
Key Determinants of Rising Health Care Cost in the U.S.
Adviser: Reagan Baughman

Logan Malone
Economics
Walkability and Property Values
Adviser: Aziz Saglam

Madeline Maurer
Economics
The Economics of College Football
Adviser: Aziz Saglam

Riley McAlpine
Sarah Nadeau
Alexandra Work
Economics
Dominant Causes of Income Inequality in the United States
Adviser: Reagan Baughman

Elizabeth O’Malley
Economics, International Affairs
On the Relationship between Foreign Direct Investment and Urbanization
Adviser: Aziz Saglam

Ivona Pesa
Economics
Crime and the Business Cycle
Adviser: Aziz Saglam

Daniel Pineau
Economics
The Economic Effects of the Marijuana Industry
Adviser: Aziz Saglam

Connor Stahl
Economics
Capitalism vs. Socialism: Taxation and Education
Adviser: Aziz Saglam

Paul College, Room G45
9–10:30 a.m.

EcoGastronomy Poster Presentations

Richelle Barone
Ecogastronomy, Human Development and Family Studies

Isabella Falco
Ecogastronomy, Nutrition
Trust Your Gut: An Educational Program Highlighting the Importance of the Gut Microbiome
Adviser: Daniel Winans

Carina Berglund
Nutrition
The Nutritional Impact of Meals 4 Kids on Participating Families in the New Hampshire Seacoast
Adviser: Daniel Winans

Melissa Brennan
Aimee Carignan
Ecogastronomy, Nutrition
Dover Schools: Bringing Nutrition and Sustainability Awareness to the District
Adviser: Daniel Winans

Jessica Dodge
Ecogastronomy, Hospitality Management

Melissa Ferris
Ecogastronomy, Nutrition
Birch Hill Cafe: Business Proposal for a Sustainable Cafe and Education Hub
Advisers: El-Hachemi Aliouche, Daniel Winans

Matthew Doherty
Ecogastronomy, Sustainable Agriculture and Food Systems

Tia Floyd
Communication, Ecogastronomy
Behind the Seeds at The Farm: Cultivating Sustainable Young Minds through Experiential Learning
Adviser: Daniel Winans

Hannah Milstein
Ecogastronomy
Growing Grains: Increasing Grain Production in the Seacoast
Adviser: Daniel Winans
Jenifer Nugent  
Ecogastronomy, Sustainable Agriculture and Food Systems  
*Let’s Veg Out: Implementing Hydroponics in Urban School Systems*  
Advisor: Daniel Winans

Ruth Smith  
Ecogastronomy, Hospitality Management  
*Growing Wise about Wines: A Wine Education Class about Californian and French Wines*  
Advisor: Daniel Winans

Liam Waldron  
Ecogastronomy, Sustainable Agriculture and Food Systems  
*Past, Present, Future: The Impacts of Climate Change on Viticulture in California*  
Advisers: Daniel Remar, Daniel Winans

Nicole Williamson  
Ecogastronomy, Environmental Sciences  
*Increasing Farm Sustainability: Designing a Biofilter to Manage Compost Gas Exhaust*  
Advisers: John Aber, Daniel Winans

Paul College, Great Hall  
11 a.m.–12:30 p.m.

**Economics 676 Poster Presentations**  
Adviser: James Wible

Cole Bartlett  
Economics, Sustainability  
*Boston Red Sox: The Economic Strategies for Success*

Nicholas Brown  
Economics  
*The Economics of the Patriots Roster Salary Structure*

Joseph Carroll  
Economics  
*Labor/Salaries of the Golden State Warriors*

Mario DeBueris  
Economics  
*Economic Analysis of the New York Rangers Franchise*

Charles Driscoll  
Information Systems and Business Analytics  
*Economic Analysis of the Vegas Golden Knights Roster*

Richard Ellison  
Finance  
*Economics and Financing of the Los Angeles Stadium at Hollywood Park*

Felix Guerette  
Finance  
*Cost/Benefit Analysis of the Golden State Warriors New Arena*

Connor Holman  
Economics  
*Arsenal Gunners Labor Economics*

Jefferson Horn  
Finance  
*Los Angeles Lakers Labor Market*

Scott Jakubowicz  
Economics, Finance  
*MLB Salary Trends behind the Numbers*

Trevor Lacey  
Information Systems and Business Analytics  
*Economic Analysis of the Utah Jazz’s Labor*

Matthew Lambert  
Finance  
*An Economic Analysis of the Toronto Maple Leafs Salary Structure*

Christine Lee  
Finance  
*An Economic Analysis of Labor Markets and the Boston Red Sox*

Evan MacHenry  
Finance  
*An In-Depth Look at the Public Financing behind the Detroit Red Wings NHL Franchise*

Samuel Nielsen  
Finance  
*The Returns to Skill for PGA Tour Golfers*

Jack Niles  
Information Systems and Business Analytics  
*Atlanta United Firm Organization Analysis*

Joseph Pierro  
Economics, Finance  
*Economics of the Las Vegas Golden Knights*

Richard Planchet  
Economics  
*The Economical Analysis of T-Mobile Arena*

Keegan Porter  
Finance  
*The Public Finance of the New England Patriots*

Shane Quimby  
Finance  
*Dallas Cowboys Facility, AT&T Stadium*

Christian Reardon  
Economics  
*The Economics of the Chicago Blackhawks Franchise*

Douglas Rose  
Information Systems and Business Analytics  
*Economic Analysis of the Boston Bruins Franchise*

Ethan Vient  
Economics  
*How Danny Ainge Avoided the Cycle of Tanking within the NBA*

Tanner Wheeler  
Finance, Management  
*An Economic Analysis of the Green Bay Packers Franchise*
**Information Systems and Business Analytics Poster Presentations**

Jake Adams  
Linwei Shao  
Information Systems and Business Analytics

Ryan Anastasi  
Information Systems and Business Analytics, Management

Benjamin Pollack  
Information Systems and Business Analytics, Marketing

Erika Zadravec  
Information Systems and Business Analytics, Marketing

*Data Analysis for the Portsmouth Music and Arts Center*
Adviser: Russell Miles

Jeffrey Anderson  
Information Systems and Business Analytics, International Business and Economics

Alec Bedard  
Accounting, Information Systems and Business Analytics

Courtney Bondanza  
Finance, Information Systems and Business Analytics

Megan Van Bourgondien  
Information Systems and Business Analytics, Marketing

*Proulx Oil and Propane*
Adviser: Russell Miles

Seán Andreasson  
Finance, Information Systems and Business Analytics

Jared Boulanger  
Information Systems and Business Analytics

Alexander Bice  
Information Systems and Business Analytics, Marketing

Jake Gilbert  
Information Systems and Business Analytics

*DS 775 Corporate Project Experience: New Balance*
Adviser: Peter Zaimes

Cameron Armand  
Jared Farley  
Paige Gibson  
Steven Saucier  
Information Systems and Business Analytics

Kameron Hall  
Finance, Information Systems and Business Analytics

*Hitchiner Manufacturing Co.*
Adviser: Kholekile Gwebu

Kathleen Bennett  
Walter Collier  
Kevin Gilchrest  
Gerasimos Moukis  
Information Systems and Business Analytics

Stephen Panella  
Finance, Information Systems and Business Analytics

*Lindt Corporate Project—ISBA Capstone*
Adviser: Russell Miles

Gage Benson  
Zachary Foster  
Ryan Ho  
John Milne  
Jack Russo  
Finance, Information Systems and Business Analytics

*UNH Lacrosse Analytics*
Adviser: Peter Zaimes

Clayton Bentley  
Information Systems and Business Analytics, Sustainability

William Bernard  
Jacob Mannix  
Information Systems and Business Analytics

Danielle Doolin  
Finance, Information Systems and Business Analytics

*UNH Paul College—Academics Programs*
Adviser: Russell Miles

Stephen Bouzianis  
Rona Hope-Murray  
Jacob Maggy  
Katelynn Scannell  
Information Systems and Business Analytics

Ling Hu  
Finance, Information Systems and Business Analytics

*Kingswood Leasing*
Adviser: Peter Zaimes

Bryce Brown  
Business Administration

Mark Coleman  
Joseph LaRocca  
Information Systems and Business Analytics

Brian Deshaies  
Finance, Information Systems and Business Analytics

Mary McLamb  
Chemical Engineering, Information Systems and Business Analytics

Timberland
Adviser: Peter Zaimes

James Busi  
Ardalan Mahdavieh  
Information Systems and Business Analytics

Keanan McGonigle  
Andrew Wetmore  
Finance, Information Systems and Business Analytics

Steven Zuidema  
Accounting, Information Systems and Business Analytics

*S.G. Torrice Company*
Adviser: Russell Miles

Zachary Curran  
Ashley Fopiano  
Finance, Information Systems and Business Analytics

Paula Grossi  
Information Systems and Business Analytics

Nikkilette Salley  
Information Systems and Business Analytics, Management

Hody Wong  
Information Systems and Business Analytics, International Business and Economics

*Dunstan Pediatric Services*
Adviser: Kholekile Gwebu
Mason Currie  
Information Systems and Business Analytics

Dung Tri Dinh  
Accounting, Information Systems and Business Analytics

Valerie Ihrich  
Information Systems and Business Analytics

Michael Ghamo  
Finance, Information Systems and Business Analytics

Michael Kaichen  
Business Administration, Information Systems and Business Analytics, Management  
City of Rochester Project  
Adviser: Russell Miles

Chace Dearborn  
Finance, Information Systems and Business Analytics

James Dogil  
Zoe Kaufman  
Bryce Schultz  
Information Systems and Business Analytics

Kyle Mercer  
Information Systems and Business Analytics, Marketing  
Town of Rye  
Adviser: Peter Zaimes

Lauren Donahue  
Hui Gao  
Information Systems and Business Analytics

Christian Exton  
Hans Massie  
Information Systems and Business Analytics

Philip Hansen  
Finance, Information Systems and Business Analytics  
Red River Computer Co. Inc.  
Adviser: Kholekile Gwebu

Jeffrey Eisenbeis  
Noah Robison  
William Ulrich  
Information Systems and Business Analytics

Natalie Mahoney  
Finance, Information Systems and Business Analytics

Julia Perna  
Information Systems and Business Analytics, Marketing  
DS 775 Paul College Office of Communications  
Adviser: Kholekile Gwebu

Zachary Fay  
Business Administration

Ryan O’Keefe  
Finance, Information Systems and Business Analytics

Amanda Parnigoni  
Information Systems and Business Analytics, Management

Jocelyn Petry  
Accounting, Information Systems and Business Analytics

Emily Rich  
Information Systems and Business Analytics  
DermSpectra Group  
Adviser: Kholekile Gwebu

Sebastian Gonin  
Finance, Information Systems and Business Analytics

Zefeng Jin  
Laura Moran  
Emma Walsh  
Cenrara Widi  
Information Systems and Business Analytics  
New Hampshire Small Business Development Center  
Adviser: Peter Zaimes

Wenting Huang  
Business Administration

Sardar Adam Saeed Khan  
John Morency  
Kevin Sloane  
Information Systems and Business Analytics

Michael Murphy  
Information Systems and Business Analytics  
White Birch Armory  
Adviser: Russell Miles

Trevor Lacey  
Jessica Lavallee  
Jack Niles  
Douglas Rose  
Nicholas Ware  
Information Systems and Business Analytics

UNH Campus Recreation Certification Database  
Adviser: Kholekile Gwebu

Madeline May  
Jenna Owens  
Spencer Pope  
Luc Ravenelle  
Information Systems and Business Analytics

Timothy Putnam  
Information Systems and Business Analytics, Sustainability  
Liberty Mutual Corporate Project Experience  
Adviser: Kholekile Gwebu

Kasey Noffsinger  
Krysten Provenca  
Information Systems and Business Analytics, Marketing

Cassandra Putsch  
Kellie Sovak  
Information Systems and Business Analytics

Benjamin Tully  
Finance, Information Systems and Business Analytics  
Seaside Dreams  
Adviser: Peter Zaimes

Paul College, Rooms G35, G45 and Great Hall  
1–2:30 p.m.

Multidisciplinary/Honors Thesis Poster Presentations

Sean Andreasson  
Finance, Information Systems and Business Analytics

Uncertainty across the Pond: An Evaluation of Capital Market Volatility and Currency Fluctuations in Reaction to Key Brexit Events  
Adviser: Stephen Ciccone
Win Phy Phy Aung  
Entrepreneurial Studies, Marketing  
Challenges International Students Faced and Their Perceived Values on UNH  
Adviser: Lin Guo

Stephen Bouzianis  
Information Systems and Business Analytics  
Predicting the Outcome of NFL Games Using Logistic Regression  
Adviser: Ali Hojjat

Douglas Boyle  
Finance  
The CEO Effect on the Corporate Diversification Strategy  
Adviser: Viktoriya Staneva

Lauren Britt  
Finance, Management  
Andrea LaBonte  
Management  
Amanda Parnigoni  
Information Systems and Business Analytics, Management  
Ethics Framing  
Adviser: Jennifer Griffith

Lauren Britt  
Finance, Management  
Andrea LaBonte  
Management  
Amanda Parnigoni  
Information Systems and Business Analytics, Management  
Minding the ($800,000) Gap: Accounting for the Gender-Driven Gap in Executive Severance Agreements  
Advisers: Jennifer Griffith, Stephan Shipe

Lauren Britt  
Finance, Management  
Andrea LaBonte  
Management  
Amanda Parnigoni  
Information Systems and Business Analytics, Management  
Political Identity and Judgement  
Adviser: Jennifer Griffith

Eric Brogioli  
Accounting, Finance  
Disclosure Levels in the Construction Industry and Their Effect on Stock Price  
Adviser: Catherine Plante

Peter Brown  
Economics  
A Tragedy of the Commons Dilemma: Fishing  
Adviser: John Tommasi

Bryce Brown  
Business Administration  
March Madness Bracket Prediction: Who Will Be the Next College Basketball Champion?  
Adviser: Ali Hojjat

Clinton Cabral  
Accounting  
The Effects of Mood and Awareness on Auditors’ Judgmental Decision Making  
Adviser: Jonathan Nash

Madeline Clapp  
Hospitality Management  
Finding a Balance between Revenue Management Practices and Consumer Perceptions  
Adviser: El-Hachemi Aliouche

Sedona Clother  
Accounting, Management  
Relationships between Corporate Inversions and the Tax Cuts & Jobs Act  
Adviser: John Hasseldine

Gianna Demetroulakos  
Finance  
What Makes a Good CEO?  
Adviser: Caitlin DeSoye

Brian Dezurick  
Economics  
The Impact of Minimum Wages on High School Completion Rates  
Adviser: Reagan Baughman

Alexis Gray  
Economics  
Brands Take a Stand for Good: The Effect of Brand Activism on Social Media Engagement  
Adviser: Moein Khanlari

Emily Grone  
Management  
Airports: A Study of Technology Integration  
Adviser: Andrew Earle

Kameron Hall  
Finance, Information Systems and Business Analytics  
Evaluating the Impact of Qualitative Factors on Mergers & Acquisitions Success  
Adviser: Robert Gough

Andrew Hultgren  
Accounting, Finance  
Tax Identity Fraud  
Adviser: John Hasseldine

Sardar Adam Saeed Khan  
Finance, Information Systems and Business Analytics  
International Portfolio Optimization  
Adviser: Mihail Miletkov

Jason Korbani  
Accounting, Finance  
The Association between Accountability Measures and Perceptions of Ethics  
Adviser: Linda Ragland

Wenbin Liu  
Marketing  
The Facts behind GMO Food  
Adviser: Shuili Du

Matthew LoStocco  
Business Administration, Entrepreneurial Studies, Finance  
Data Disparity: Using Tiered Pricing as an Alternative to Consumer IoT Data Privacy Regulations  
Adviser: Jeffrey Sohl

Samantha Luuka  
Business Administration  
Measuring Financial Success of American Symphony Orchestras  
Adviser: Linda Ragland

Michael McCarthy  
Finance, International Business and Economics  
The Impact of Tariffs on Equity Markets in 2018  
Adviser: Stephen Ciccone

Devin McMahon  
Marketing  
Targeted Digital Advertising: An Effective Approach for Engaging Consumers?  
Adviser: Billur Akdeniz Talay
Hannah Milstein  
Economics  
*The Effects of Reducing Federally Subsidized Crop Insurance*  
Adviser: Reagan Baughman

Brendan Mooney  
Business Administration  
*Effects of Institutions of Economic Recovery after a Natural Disaster*  
Adviser: Bruce Elmslie

Christopher Murphy  
Management  
*Reasons and Effects of Switching College Majors*  
Adviser: Michael Swack

Mai Thanh Nguyen  
Accounting, Finance  
*For-Profit and Non-Profit Visiting Nurse Associations*  
Adviser: Catherine Plante

Elizabeth O’Malley  
Economics, International Affairs  
*The Effect of Foreign Aid Delivery Methods on Income*  
Adviser: Yin Germaschewski

Stephen Panella  
Finance, Information Systems and Business Analytics  
*Models for Predicting NFL Game Outcomes*  
Adviser: Tevfik Aktekin

Anna Peaslee  
Accounting, Management  
*The Impact of Gender in Top Management and Corporate Governance on the Likelihood of an Auditor Issuing a Going-Concern Opinion*  
Adviser: Jonathan Nash

Hien Phan  
Accounting, Finance  
*New Revenue Recognition Standard and Its Impact on Book-Tax Difference: Change in Earnings Quality?*  
Adviser: Le Xu

Spencer Pope  
Information Systems and Business Analytics  
*Upselling the Existing Subscribers of a Loyalty Program*  
Adviser: Inchan Kim

Jemina Shepherd  
Economics  
*Skill Biased Technological Change as a Major Cause of Increasing Income Inequality*  
Adviser: Reagan Baughman

Kristina Sidiropoulos  
Finance, Management  
*Real Estate in Developing Areas: Trends and Identifiers of a Money-Making Location*  
Adviser: Caitlin DeSoye

Allison Simone  
Accounting, Finance  
*Financial Restatements within the Big 4 Accounting Firms*  
Adviser: Le Xu

James Smugereski  
Finance  
*Reading between the Lines: CEO Temperament Measured by Textual Analysis and Firm Policy*  
Adviser: Huimin Li

Thi Ngoc Diep Tran  
Management  
*Employee Volunteer Program in the Eye of College Students*  
Adviser: Anthony Pescosolido

Schuyler Vaillancourt  
Economics, International Affairs  
*The Effects of Tariffs on the U.S. Economy*  
Adviser: Aziz Saglam

Alexandra Work  
Economics  
*Examining University Sorority and Fraternities as Pyramid Schemes*  
Adviser: Marc Herold

Spencer Young  
Accounting, Finance  
*Understanding Tax Havens*  
Adviser: John Hasseldine

Peter T. Paul College of Business and Economics Undergraduate Research Conference

**Oral Presentations**

**Friday, April 26**

11:10 a.m.–3:30 p.m.  
Paul College

Through original research and valuable guidance from mentors, this event helps Paul College students gain deeper academic knowledge as well as professional experience. This URC event includes poster presentations, oral presentations, and feedback from judges.

**Paul College, Rooms G85, 135, 165, 175**

11:10 a.m.–12:30 p.m.

*Marketing Workshop Oral Presentations*

Adviser: Peter Masucci

Kathryn Aiken  
Casey Cardon  
Yanni Latzanakis  
Marketing  
*Paula Camara de la Fuente*

International Business and Economics, Marketing  
*Christopher Doyle*  
*Katelin Fischer*  
*Dalton Litzelman*  
*William Logan*  
Management, Marketing  
*Emily Grone*  
Management  
*Grace Moleski*  
*Sydney Rousseau*  
Finance, Marketing  
*Research and Development of Marketing Programs to Increase Awareness of, and Visits to the City of Keene, NH*
Win Phyu Phyu Aung  
Entrepreneurial Studies, Marketing  
Jeffrey Correia  
Finance, Marketing  
Kaylee Dalton  
Matthew Haley  
Wennbin Liu  
Alana Maher  
Marketing  
Julia Perna  
Information Systems and Business  
Analytics, Marketing  
Katelynn Scannell  
Information Systems and Business  
Analytics, Marketing  

Research and Develop Marketing Programs to Increase Awareness of, and Adoptions of Cats at Cat Tales Rescue in Seabrook, NH

Olivia Bachry  
Christopher Lord  
Colin Morrissey  
Tyler Provost  
Shamus White  
Marketing  
Maggie Davis  
Management, Marketing  
Benjamin Pollack  
Information Systems and Business  
Analytics, Marketing  
Design and Develop Marketing Programs to Expand Awareness of, and Visits by Families with Children to the Albacore Submarine Museum in Portsmouth, NH

Shane Bartlett  
Molly Benz  
Charles White  
Entrepreneurial Studies, Marketing  
Sabrina Jowders  
Molly McAndrews  
Nicholas Watson  
Marketing  
Design and Develop a Marketing Plan for the Theatre for Life Program Offered by the NH Theatre Project in Portsmouth, NH

Francesca Bellinghieri  
Ashley Cunningham  
Giana Romano  
Marketing  
Marie-Jo Pelletier  
Nicholas Snedegar  
Management, Marketing  
Mikayla Terenzoni  
Hospitality Management, Marketing  
Research and Design Marketing Programs to Help Grow Business for 360 Intel, a Manchester, NH, Mystery Shopper Company

Nicholas Bevilacqua  
Sierra Migneault  
Tyler Moriarty  
Jonathan Olsen  
Amanda Villanti  
Marketing  
Brenna McGill  
Management, Marketing  
Research and Develop Marketing Programs to Increase Awareness of, and Booking for Weddings at the Boston Seaport Hotel and World Trade Center

Charles Bossi  
Ryan Carrigan  
Amanda Flaherty  
Adrianna Lamparelli  
Samantha Zizza  
Marketing  
Cameron Dixon  
Entrepreneurial Studies, Marketing  
Sarah Mahoney  
Management, Marketing  
Research and Development of Marketing Activities to Expand Awareness of, and Increase Participation in a Variety of UNH Campus Recreation Programs

Brooke Botticelli  
Harrison Clark  
Lauren Gross  
Maxwell Paroda  
Marketing  
James Cranford  
Finance, Marketing  
Daria Gazizova  
Art: Studio Art, Marketing  
Davis Potter  
Marketing  
Research, Design, and Develop Marketing Programs to Increase Retail Store Traffic for L.L.Bean of Freeport, Maine
Matthew Boudreau
Alexis Bourbeau
Nathanial Dexter
Ziwei Lyu
Sarah Morgan
Marketing
Christopher Morales-Galindo
Finance, Marketing
Research, Design, and Develop Marketing Programs to Increase Awareness of, and Sales of Products for RAWZ Pet Foods, a Not-for-Profit Business in York, Maine

Antonio Bruni
Entrepreneurial Studies, Marketing
Kelsey Collins
Finance, Marketing
Katelyn Frechette
Emile Steven
Management, Marketing
Christina Montanile
International Business and Economics, Marketing
Matthew Sherlock
Marketing
Design and Develop Marketing Programs to Increase Participation in COIN, a New John Hancock Platform That Targets an Individual’s Investments to Areas They Care Most About

Elizabeth Carne
Finance, Marketing
Benjamin Doucette
Tyler Martel
Taylor McAnney
Marketing
Kelsey Koloski
Riley Stone
Management, Marketing
Research and Develop Marketing Programs to Increase Awareness of, and Purchases of the Direct-to-Consumer, John Hancock Vitality Life Insurance Product

Julia Cassidy
James Curley
Kristen McCoy
Isabella Monzione
Carly Szymanski
Marketing
Jonathan Duffy
Entrepreneurial Studies, Marketing
Zihe Li
Finance, Marketing
Research, Design, and Development of Marketing Programs Aimed at Increasing Visibility of, and Participation in Community Programs at the First Congregational Church in Farmington, NH

Elise Chandler
Hospitality Management, Marketing
Rebecca Dubovsky
Thomas Sievewright
Courtney Sullivan
Marketing
Alexa Markman
Management, Marketing
Erika Zadravec
Information Systems and Business Analytics, Marketing
Research and Develop Marketing Programs to Increase Awareness of, and Enrollment in the Outdoor Education Major at the College of Health and Human Services at UNH

Madison Chouinard
Marketing, International Business
Megan Howe
Management, Marketing
Matthew Lavoie
Austin Quinlan
Paul Vicino
Marketing
Kyle Mercier
Krysten Provenccal
Information Systems and Business Analytics, Marketing
Research, Design and Develop Social Media Enhancements for the Boston Seaport Hotel and World Trade Center

Matthew Costigan
Marketing
Jonah Foulks
Marketing, History
Stephanie Hebert
International Business and Economics, Marketing
Arseniy Shapovalov
International Affairs, Marketing
Emili Sherkanowski
Brittney Wallace
Management, Marketing
Research, Design, and Develop Marketing Programs to Enhance the Corporate Brand Image for John Hancock Insurance Company of Boston, Massachusetts

Connor Cote
Kinesiology, Marketing
Olivia Estes
Stephanie Gorman
Emma Loschiavo
Steven Powers
Marketing
Jenna Owens
Information Systems and Business Analytics
Christine Tarantino
Management, Marketing
Austin Timpone
International Business and Economics, Marketing
Research, Design, and Develop Marketing Programs to Increase Awareness, and Participation in the UNH Global Study Abroad Program
Christian Coughlin  
Finance, Marketing  
Jack Kenny  
Ian Low  
Devin McMahon  
Erica Paisner  
Duyu Zhang  
Marketing  
Molly Makiver  
Management, Marketing  
Kasey Noffsinger  
Information Systems and Business Analytics, Marketing  
Alyssa Picard  
Marketing, Nutrition  
Kellie Sovak  
Information Systems and Business Analytics  
Design and Develop Marketing Programs to Enhance the Visibility of, and Gain New Customers for MaineLine Graphics, a Sign Systems Manufacturing Company based in Antrim, NH

Caitlin Coxen  
Hospitality Management, Marketing  
Alexis Deplitch  
Kiley Keenan  
Elisabeth Kelley  
Jessica Roselund  
Devan Taylor  
Marketing  
Andrew Kelly  
Information Systems and Business Analytics, Marketing  
Research and Develop Marketing Programs to Increase Awareness of, and Sales for Odin Lures, a Fishing Equipment Company in Hudson, NH

Kailey Cullen  
Michael McAuliffe  
Mariah White  
Marketing  
Sean Hamling  
Luke Reavey  
Finance, Marketing  
Emily Mills  
Matthew Perry  
Management, Marketing  
Conduct National Research to Help 603 and ME, a NH Non-Profit Organization, Develop Promotional Programs to Help Attract Businesses to Start in, or Expand into New Hampshire

Samantha Fusco  
Olivia Ross  
Rachel Tisevich  
Marissa Urbanek  
Dylan Kyer  
Entrepreneurial Studies, Marketing  
Rachel Thomson  
Mikaila Walsh  
Marketing  
Design and Develop Marketing Programs to Enhance the Effectiveness of the Residential Life Organization on the UNH Campus

Paul College, Room 235  
2:10–3:30 p.m.  
Atkins Investment Group  
Advisers: Stephen Ciccone and Ahmad Etebari  

Charles Andes  
Cameron Bean  
Devon Cherouvits  
Nicholas Distaso  
Jeremy Dorrell  
John Evans  
Madisen Gonya  
Logan Hoffman  
Ann-Marie Kolberg  
Nicholas LaCreta  
Sophia Mazzarelli  
John McKay  
Andrew Merchant  
Julie Montgomery  
Eric Munson  
Kevin Murphy  
Matthew Murray  
Samuel Nielsen  
Max Polay  
Sean Ray  
Brian Rivet  
William Saunders  
Steven Schnobrich  
Kyle Shaw  
Hanzla Sheikh  
Erik Sherkanowski  
Justin Szabo  
Anthony Tamposi  
Austin Wildes  
Jake Yennaco  
Finance  

Sean Andreasson  
Finance, Information Systems and Business Analytics  
Michael Bechtold  
Entrepreneurial Studies  
Eliot Coulter  
Russell Miles  
Applied Mathematics  
Corey Giallongo  
Ivana Korusiakova  
Eric Penner  
David Selner  
Accounting  
Manish Giri  
Analytical Economics  
Jacob Maggy  
Information Systems and Business Analytics  
Michael McCarthy  
Finance, International Business and Economics  
Isaiah Newton  
History

UNH Manchester  
URC Engineering Technology Day

Senior Project Presentations  
Friday, April 26  
9 a.m.–5 p.m.  
Pandora Mill, Rooms 201, 142, and 146  
88 Commercial St., Manchester

The UNHM Engineering Technology Program presents its annual Senior Project Presentations day. This event is the culmination of an academic year effort where full-time seniors formally present their projects to peers, faculty members, representatives and technical advisers of sponsoring companies, and special guests.
Honors English Undergraduate Research Conference

Friday, April 26
1–3:30 p.m.
Hamilton Smith Hall, Room 205

To complete Honors-in-English, students must conduct a semester-long research project, culminating in a 30-40 page senior thesis. The Honors English Undergraduate Research Conference provides these students and students in the linguistics program with the opportunity to share their work with their fellow students, professors, and families. The presentations include poetry, autobiographical writing, journalism, and scholarship on literary texts from several different centuries.

Mikayla Mallett
English
The Absence of Parental Guidance in Eighteenth Century Literature
Adviser: Sean Moore

Emily McPherson
English
The Representation of African Americans in Film
Adviser: Delia Konzett

Joseph Pirone
English
The Influence of Classicism in J. Hector St. John de Crèvecœur’s "Letters from an American Farmer"
Adviser: Brigitte Bailey

Chiara Vercellone
English/Journalism
The Relationship between Citizen Journalism and Professional Journalism in the 21st Century
Adviser: Lisa Miller

Elizabeth Walsh
English, History
Deep Gash
Adviser: Thomas Payne

The Naked Arts—Creativity Exposed

Act III

Friday, April 26
12:15–1 p.m.
Memorial Union Building, Theatre I

This event exposes the inner creative process of artists working in various disciplines. Presenters will describe the process, research, and other creative aspects undertaken to bring an artistic creation from initial inspiration to the stage or gallery. This may include a performance or excerpts from their work to illustrate their creative scholarship.

Jason Ducharme
English, History
Come Forth in Thaw
Adviser: Thomas Payne

Justin Palma
Theatre
Capstone Project: Lighting Design for If/Then
Adviser: Lih-Hwa Yu

Kevin Ansis
Computer Engineering, Electrical Engineering Technology

Samuel Broadwater
Mechanical Engineering Technology
3D Printed Models from Microscopy Images
Advisers: Shawn Banker, Nancy Cherim, Christopher LeBlanc, Theodore Tavares, Mark Townley

Matthew Fintonis
Electrical Engineering Technology
Build Your Own Project—An Internal Tool for Sales
Adviser: Christopher LeBlanc

Devon Greer
Mechanical Engineering
Redesign of an Existing Laminate Unwinder
Adviser: Theodore Tavares

Philip Kocis
Electrical Engineering
Assisted Guitar PX
Adviser: Christopher LeBlanc

Demetrious Hoggard
Mechanical Engineering Technology
Circuit Card Fixture
Adviser: Theodore Tavares

Durga Koirala
Electrical Engineering Technology
Variable Camera Trigger Box
Advisers: Craig Hossfeld, Craig Waddington

Ryan Lamont
Mechanical Engineering Technology
Design of External Mounting Rig for Ink Reservoirs
Adviser: Theodore Tavares

Timothy McDaniel
Mechanical Engineering Technology
Design of the Manufacturing Process for Large Flanged Immersion Heaters
Adviser: Theodore Tavares

Walters Ndi
Mechanical Engineering Technology
Investigating Additive Manufacturing in Ductile Materials
Adviser: Theodore Tavares

Rachel Sedlacek
Electrical Engineering Technology
990051 Test IC Layout for ADC Silicon Performance Characterization
Adviser: Christopher LeBlanc

Chad Toulouese
Mechanical Engineering Technology
Sliding Guitar Pickup
Adviser: Robert Arredondo

2019 UNDERGRADUATE RESEARCH CONFERENCE • 49
Alycia Wilson  
English/Journalism  
The Ethics of Identifiers and Causal Relations in Journalism  
Adviser: Lisa Miller

Francis Gesel  
Kinesiology  
Effects of Acute Static and Ballistic Stretching on Muscle-Tendon Unit Stiffness, Work Absorption, Strength, Power, and Countermovement Vertical Jump Performance  
Adviser: Dain LaRoche

Emily Morenz  
Kinesiology  
Effects of Acute Static and Ballistic Stretching on Countermovement Vertical Jump Performance  
Adviser: Dain LaRoche

College of Health and Human Services (CHHS) Grimes Award Competition

Friday, April 26  
1–4 p.m.  
Pettee Hall, Rooms 106, 114, and G02

Jack and Marianna Grimes and family, all UNH graduates, endowed the funds for this celebration of excellence in undergraduate research. The oral presentation competition includes finalists who have been selected by CHHS faculty after rigorous scientific review of written proposals.

Victoria Bandera  
Kinesiology  
Functional Demand and Maximal Strength in Older Female Cancer Survivors Who Have Completed Cancer Treatment  
Adviser: Dain LaRoche

Allison Boldis  
Communication Sciences and Disorders  
Prosody in Children with Autism  
Adviser: Jill Thorson

Shannon Bryant  
Communication Sciences and Disorders  
Language Performance in Parkinson’s Disease  
Adviser: Amy Ramage

Teigue Young  
Kinesiology  
Measurements of Muscle Thickness by Ultrasound Imaging Following Blood Flow Restricted Exercise  
Adviser: Summer Cook
**Psychology Department**  
**George M. Haslerud Undergraduate Research Conference**

**Friday, April 26**  
1–5 p.m.  
McConnell Hall, Room 220

The George M. Haslerud URC, named for the late Professor Emeritus of Psychology, recognizes and celebrates undergraduate research conducted by Honors psychology students. Students present their original research projects before an audience of UNH faculty, staff, graduate students, fellow undergraduates, and friends and family.

**Amanda Bagnardi**  
Neuroscience and Behavior  
*The Neural Correlates of Frustration*  
Adviser: Caitlin Mills

**Spencer Bardwell**  
Psychology  
*How Much Support Do You Seek? Parental Predictors of Emotional Reliance in Differing Ages of Adolescents*  
Adviser: Ellen Cohn

**Jessica Brown**  
Neuroscience and Behavior  
*Examination of the Role of Alpha Oscillations and Attention in the Modulation of Episodic Memory by Value*  
Adviser: Robert Ross

**Colleen Donovan**  
Nutrition, Psychology  
*The Effects of Calorie Restriction on the Development of Anxiety in Female Rodents*  
Adviser: Robert Drugan

**Kelly Jacques**  
Psychology  
*Discrimination Hindering Perceptions of Equality: Can Second Generation Immigrants Confidently Pursue the American Dream of Higher Education?*  
Adviser: Ellen Cohn

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**Oral Presentations**

**Saturday, April 27**  
7:45–10:30 a.m.  
Memorial Union Building, Theatre II

Student presentations at the COLSA URC are based on research conducted in any of the departments within the College of Life Sciences and Agriculture. Registrants will be notified by the COLSA URC committee if they are selected for an oral presentation.

**Chloe Pilgrim**  
Neuroscience and Behavior, Psychology  
*Differential Effects of Acute vs. Chronic Stress on Serotonin and Corticosterone in Female Rats*  
Adviser: Robert Drugan

**Audrey Tocco**  
Neuroscience and Behavior  
*Examination of Attention and Retention for Different Types of Religious Concepts*  
Adviser: Robert Ross

**Nicole Westfall**  
Psychology  
*Behavioral Scoring*  
Adviser: Robert Drugan

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**Kathryn Bennett**  
Environmental Sciences, Sustainability  
*Using Stable Isotope Analysis of Methane in the Bubbles and Sediment Porewater of Ponds to Determine Methane Production Pathways*  
Adviser: Ruth Varner

**Colleen Donovan**  
Nutrition, Psychology  
*The Effects of Calorie Restriction on the Development of Anxiety in Female Rodents*  
Adviser: Robert Drugan

**Anna Haber**  
Genetics  
*Understanding the Role of Polyamines in Rice under Drought and Salt Stress*  
Adviser: Subhash Minocha

**Amanda Kabel**  
Biomedical Science  
*Developmental Pattern of Primary Cilia in the Mouse Adrenal Glands*  
Adviser: Xuanmao Chen

**Jessica Sexton**  
Animal Science  
*Effect of Selenomethionine Hydroxy Analog (Se-MHA) in the Form of Selisseo (2% Se) on the Concentration of Selenium in Milk and in Blood for Mid and Late Lactation Holstein Dairy Cows*  
Adviser: Nancy Whitehouse

**Cody Symonds**  
Wildlife and Conservation Biology  
*Winter Tick Parasitism of Moose: Influence on Adult Cow Productivity and Winter Calf Mortality*  
Adviser: Peter Pekins

**Avery Van De Water**  
Neuroscience and Behavior  
*Dynamic Causal Modeling of the Speech Network in Stroke-Induced Apraxia of Speech*  
Adviser: Donald Robin
COLSA Undergraduate Research Conference

Poster Presentations

Saturday, April 27
10:45 a.m.–12:15 p.m.
Memorial Union Building, Granite State Room

Student presentations at the COLSA URC are based on research conducted in any of the departments within the College of Life Sciences and Agriculture. Research ranges from field studies to molecular biology to genomics studies.

Brienna Achorn
Biology
Using Cardiac Assay Techniques and Immunohistochemistry to Determine Whether American Lobsters (Homarus americanus) Have Extraocular Photoreceptors in Their Central Nervous System
Adviser: Winsor Watson

Sharlene Amador
Biochemistry, Molecular and Cellular Biology
Colin McGonagle
Biomedical Science
Epidemiology of Staphylococcus
Bacteria from Pets and Wild Carnivores in New England
Adviser: Cheryl Marie Andam

Amanda Bagnardi
Neuroscience and Behavior
The Neural Correlates of Frustration
Adviser: Caitlin Mills

John Ball
Krista Mastrogiacomo
Biomedical Science
Exploring the Diversity of Antibiotic-Producing Streptomyces Bacteria from Odiorne Point State Park Salt Marsh and Drowned Forest
Adviser: Cheryl Marie Andam

Bethany Balstad
Environmental Sciences
Assessing Gross Depolymerization and Immobilization Rates Using a 15-N Isotope Pool Dilution Assay
Adviser: Stuart Grandy

Maddison Barrows
Biochemistry, Molecular and Cellular Biology
Long Non-Coding RNA Expression in Waldenström’s Macroglobulinemia
Adviser: Sherine Elsawa

Morgan Baumgartner
Biomedical Science
The Student-Athlete Wellness Study: An Analysis of Sleep, Diet Quality, and Perceived Stress as Risk Factors for Injury in Division I Student-Athletes
Adviser: Jesse Morrell

Emily Beard
Wildlife and Conservation Biology
Measuring the Effect of Drought on Water Use in Red Maple (Acer rubrum) Trees
Advisers: Heidi Asbjornsen, Matthew Vadeboncoeur

Aidan Benner
Integrated Agriculture Management, Sustainable Agriculture and Food Systems
Fertilizer Regime for Organic Strawberry Production
Adviser: Lise Mahoney

Kathryn Bennett
Environmental Sciences, Sustainability
Using Stable Isotope Analysis of Methane in the Bubbles and Sediment Porewater of Ponds to Determine Methane Production Pathways
Adviser: Ruth Varner

Emily Berry
Genetics
Do RPA-Dependent Epigenetic Modifications Regulate Early Flowering in Arabidopsis thaliana?
Adviser: Kevin Culligan

Nathan Blais
Christina Lyons
Environmental Sciences
Effects of Storage Time and Temperature on Molecular Analyses of Soil Fauna Communities
Adviser: Jessica Ernakovich

Jillian Broadhurst
Biomedical Science
Evaluation of Antibiotic Use in Shelter Cats with Upper Respiratory Infection: A Prospective Study
Adviser: Sarah Proctor

Nicole Bumbera
Zoology
Distribution and Abundance of Crassostrea virginica Larvae in the Great Bay, NH
Adviser: Jenn Dijkstra

Jacob Capraro
Sustainable Agriculture and Food Systems
The Path to a Sustainable Meal
Adviser: Todd Guerdat

Vanessa Cardenas
Biomedical Science
Darian Tilton
Biology
Cell Line Authentication Using Short Sequence Repeats
Adviser: W. Kelley Thomas

Hailey Carter
Biology
Investigating the Efficiency of Aerosol Collection Methods
Adviser: James Haney

Alyson Caruso
Statistics
Tialyn Eakman
McKenzie Finigan
Nutrition
Evaluating Skin Carotenoid Levels via the Veggie Meter® in College Men and Women
Adviser: Jesse Morrell

Jasmina Cesko
Biomedical Science
Expression and Regulation of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Ovarian Adenocarcinoma (OVCAR8) and Human Granulosa Tumor (KGN) Cells
Adviser: Paul Tsang
Danielle Chancy
Environmental Sciences
The Influence of Land Use on Wood Decomposition and Algae Growth
Adviser: William McDowell

Renee Chasse
Neuroscience and Behavior
Sex Differences in Ultrasonic Vocalization Emission and Serotonin Dorsal Raphe Activation
Adviser: Robert Drugan

Joseph Chessie
Biology
Determining Self-Quenching Error for Fluorometric Pigment Analysis of Phycocyanin and Chlorophyll α Using Fresh and Frozen Samples
Adviser: James Haney

Maria Clark
Tamara Hathorn
Biomedical Science
Obesity Mediates Leukemia Progression through Ceramide Kinase and NADPH Oxidase
Adviser: Brian Barth

Brady Clarke
Marine, Estuarine and Freshwater Biology
Understanding the Future of Oyster Aquaculture in the Great Bay: Applications of the IPCC Anticipated Ocean Acidification Impacts
Adviser: Larry Harris

Andrea Cote
Biochemistry, Molecular and Cellular Biology
Devil’s Club: The Alaskan Ethnobotanical Plant and the Opportunity for the Development of Foregut Cancer Therapeutics
Adviser: Brian Barth

Annie Cotter
Genetics
The Relationship between Microbial Diversity and Aggregation of Soils under Varying Levels of Tillage Treatments at Kingman Farm
Adviser: Jessica Ernakovich

Corina Danielson
Wildlife and Conservation Biology
Factors Influencing Seed Selection by Small Mammals in New England Forests
Adviser: Rebecca Rowe

Diane DeVries
Environmental Sciences
Comparing Amino Acid Sample Recovery for Heated vs. Non-Heated (a 15N-Isotope Pool Dilution Method)
Adviser: Stuart Grandy

Matthew Dean
Biology
Molly Erickson
Sierra Moline
Tiffany Winter
Marine, Estuarine and Freshwater Biology
Green Sea Urchin Aquaculture
Adviser: Larry Harris

Daniel DiRocco
Biochemistry, Molecular and Cellular Biology
Investigating the Role of Protein Phosphatase 2A in the Salt Stress Response in Arabidopsis thaliana
Adviser: Estelle Hrabak

Colleen Donovan
Nutrition, Psychology
The Effects of Calorie Restriction on the Development of Anxiety in Female Rodents
Adviser: Robert Drugan

Maura Donovan
Sophie Kenny
Madeline Quigley
Nutrition
Understanding Male College Athletes’ Perceptions Related to the Purpose of Body Composition Assessment Using Air Displacement Plethysmography
Adviser: Kevin Pietro

Anna Dorrance
Marine, Estuarine and Freshwater Biology
Effects of Claw Removal on Jonah Crabs (Cancer borealis)
Adviser: Winsor Watson

Colleen Dunphy
Environmental Sciences
The Influence of Foliar Chemistry and Stream Nitrate Levels on Leaf Decomposition
Adviser: Adam Wymore

Allison Easterbrook
Neuroscience and Behavior
Music and Improvisation Brain Activation: A Meta-Analysis and Functional Model
Adviser: Donald Robin

Megan English
Samuel Tardiff
Environmental Conservation and Sustainability
Alexis Sims
Environmental Sciences
New Hampshire Town and Voice
Adviser: Catherine Ashcraft

Mitchell Ensinger
Environmental Sciences
Impacts of Road Salt on Freshwater Aquatic Ecosystems
Adviser: Alan Baker

Devyn Enwright
Biomedical Science
Diagnostic Findings in Caprine and Ovine Submissions to the NHVDL 2006-2018
Adviser: David Needle

Emma Faddoul
Biochemistry, Molecular and Cellular Biology
Linking Activity of DNA Damage Response (DDR) Proteins to Temporal Map of Histone Modifications
Adviser: Feixia Chu

Ashlee Fiore
Genetics
Analysis of STAT3 and STAT5 Activity in Breast Cancer
Adviser: Sarah Walker
Travis Fischer
Biochemistry, Molecular and Cellular Biology
Investigating GLI3 Interacting Proteins in Innate Immune Cells
Adviser: Sherine Elsawa

Timothy Fischer
Sustainable Agriculture and Food Systems
Self-Pollination and Development of Organic Strawberries in New England
Adviser: Lise Mahoney

Olivia Fortuna
Wildlife and Conservation Biology
Lasting Effects of White-Nose Syndrome: Wing Damage and Reproductive Status of Little Brown Bats (Myotis lucifugus)
Adviser: Rebecca Rowe

Jackson Hastings
Genetics
Disentangling the Mechanisms of Toxin Sequestration in the Poison Frog, Ranitomeya imitator
Adviser: Matthew MacManes

Mary Hurley
Biochemistry, Molecular and Cellular Biology
Not So Lice”: Developmental Sampling Methods of Sea Lice on UNH Caged Steelhead Trout (Oncorhynchus mykiss)
Adviser: Elizabeth Fairchild

Jennifer Halloran
Biochemistry, Molecular and Cellular Biology
CRISPR Mediated Knockdown in the Hydra
Adviser: David Plachetzki

Jessica Haskins
Genetics
Detection of American Eel and River Herring in New Hampshire Rivers Using eDNA: A Comparison of Metabarcoding and ddPCR
Adviser: Alison Watts

Jackson Hastings
Genetics
Disentangling the Mechanisms of Toxin Sequestration in the Poison Frog, Ranitomeya imitator
Adviser: Matthew MacManes

Anna Hayes
Kaitlyn Howard
Neuroscience and Behavior
The Influence of Thalamic Manipulations on Cortical Activity in Rats Performing the DNMTP Task
Advisers: Miranda Francoeur, Robert Mair

Molly Henion
Equine Studies
A Review of Equine Laminitis: Risk Factors and Predispositions
Adviser: Christina Keim

Molly Henion
Equine Studies
A Review of Equine Laminitis: Risk Factors and Predispositions
Adviser: Christina Keim

Nena Hunter
Genetics
Modeling Gene Gain and Loss across the Metazoan Tree: Are Sponges Degenerate?
Adviser: Matthew MacManes

Madeline Juffras
Environmental Sciences
Plastic Use by Gender on the University of New Hampshire's Campus
Adviser: Patricia Jarema

Nathaniel Kinsman
Marine, Estuarine and Freshwater Biology
"Not So Lice”: Developmental Sampling Methods of Sea Lice on UNH Caged Steelhead Trout (Oncorhynchus mykiss)
Adviser: Elizabeth Fairchild

Abigail Leclerc
Biology
Cyanobacteria and the Food Web of Norway Pond
Adviser: James Haney
Samantha Leef  
Biomedical Science  
A Developmental Study of Apoptotic Markers and Histamine Receptors in Cephalopod Statocysts  
Adviser: David Needle

Allison Lehoux  
Sustainable Agriculture and Food Systems  
Enabling Hydroponics: Evaluating Root Development Using Synthetic and Aquaponic Nutrient Sources  
Advisers: Todd Guerdat, Anissa Poleatewich

Robert Lenox-Pulgarin  
Genetics  
Effect of Selenium on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine Luteal Cells  
Adviser: Iago Hale

Ian Lichtenstein  
Biomedical Science  
A Comparison of Pre- and Post-Operative Transfusion Treatments for the Prevention of Transfusion Transmitted Malaria in Local Ghanaian Hospitals  
Adviser: Adele Marone

Jingjing Lou  
Biochemistry, Molecular and Cellular Biology  
Biophysical Studies on an Antifreeze Protein from the Desert Beetle, Anatolica polita  
Adviser: Krisztina Varga

Alexander Mailliet  
Biomedical Science  
PDE1 and PDE4 as Potential Targets for Nematicide Development  
Adviser: Rick Cote

Amber McElhinney  
Equine Studies  
Three-Dimensional Echocardiographic Analysis of the Equine Aortic Valve  
Advisers: Andrew Conroy, Peter Erickson, John Keen

Paige McKibben  
Environmental and Resource Economics  
What Is Our Water Worth and What Does Our Water Cost?  
Advisers: Shannon Rogers, Alison Watts

Mackenzie Meier  
Zoology  
Bryde's Whale Call Structure and Seasonal Distribution in the Equatorial Pacific  
Advisers: Daniel Howard, Jennifer Miksis-Olds

Christopher Mikulewicz  
Environmental Sciences  
Agricultural Impacts on Microbial Composition and Decomposition Rates on Two Streams in New Hampshire  
Adviser: Jessica Ernakovich

Nicholas Miller  
Biomedical Science  
Effect of Aging on Sensorimotor Processing: An ERP and Response Time Investigation  
Adviser: Ronald Croce

Lily Mooney  
Biochemistry, Molecular and Cellular Biology  
Characterization of the Protein S-acyl Transferase Mutant pat4-4 in Arabidopsis thaliana  
Adviser: Estelle Hrabak

Matthew Morris  
Wildlife and Conservation Biology  
Identifying Dispersal Corridors for the Endangered New England Cottontail  
Advisers: Ethan Belair, Steven Roberge

Kayli Neil  
Biomedical Science  
Targeting STAT3 with Atovaquone in Ovarian Cancer  
Adviser: Sarah Walker

Amber Nurse  
Biomedical Science  
Quantitative Histone Modification Characterization of Endoderm Cells  
Adviser: Feixia Chu

Jenna O’del  
Wildlife and Conservation Biology  
Soil Seed Bank Response Following Forest Conversion to Silvopasture and Open Pasture  
Advisers: Richard Smith, Nicholas Warren

Abigail Palin  
Biochemistry, Molecular and Cellular Biology  
Comparing the Effects of Serum Starvation on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine and Human Ovarian Granulosa Cells  
Adviser: Paul Tsang

Hannah Pare  
Genetics  
Maternal Aggression and Nestmate Interactions in a Facultatively Social Bee  
Adviser: Sandra Rehan

Trey Patno  
Biochemistry, Molecular and Cellular Biology  
Does Basic Fibroblastic Growth Factor (FGF2) Regulate the Expression of the Angiogenic Inducer (CCN1) in Bovine Luteal Cells?  
Adviser: Paul Tsang

Melissa Perry  
Biochemistry, Molecular and Cellular Biology  
Quantification of Histone Modifications of Neural Progenitor Cells  
Adviser: Feixia Chu
Margaret Phillips  
Environmental Sciences  
The Role of Small Reservoirs in Reducing Reactive N Export via Denitrification  
Adviser: Wilfred Wollheim

Ryan Puterbaugh  
Biochemistry, Molecular and Cellular Biology  
Biological Applications of NMR Spectroscopy  
Adviser: Krisztina Varga

Adriana Radosavljevic  
Tyler Silverwood  
Biochemistry, Molecular and Cellular Biology  
The Effects of Methamphetamine on Histone Modificaitons  
Adviser: Feixia Chu

Emily Ray  
Marine, Estuarine and Freshwater Biology, Neuroscience and Behavior  
A Freshwater Lake on a Maritime Island: The First Limnological Assessment of Crystal Lake  
Adviser: David Buck

Emily Ray  
Marine, Estuarine and Freshwater Biology, Neuroscience and Behavior  
Evaluating the Efficiency of Glass Fiber Filters in Cyanotoxin Aerosol Collection  
Adviser: James Haney

Matthew Rich  
Genetics  
Transgenic Arabidopsis thaliana: The Synthesis of Human α-Galactosidase-A  
Adviser: Subhash Minocha

Kara Rzasa  
Biochemistry, Molecular and Cellular Biology  
Developing Galleria mellonella as an Infection Model for Virulent Mutations in Vibrio parahaemolyticus  
Adviser: Cheryl Whistler

Walkania Santos Regaldo  
Biomedical Science  
Finding Alternative Ways to Synthesize Precursors for Small Molecule Inhibitors of β-lactamase Enzymes  
Advisers: Marc Boudreau, Deisy Pena-Romero

Evan Schafer  
Biochemistry, Molecular and Cellular Biology  
Sympatic Evolution of Vibrio Fischeri Strain H905 to Potential Pathogenicity from a Mutualistic Lineage  
Adviser: Cheryl Whistler

Evan Schafer  
Biochemistry, Molecular and Cellular Biology  
Using Comparative Transcriptomics to Analyze Differences between Lung Cancer, Colorectal Cancer, Acute Myeloid Leukemia, and Their Respective Healthy Controls  
Adviser: Subhash Minocha

Kali Scott  
Biomedical Science  
Recombinant Expression, Purification and Antimicrobial Activity of Mammalian Antimicrobial Peptides in E. coli  
Adviser: Subhash Minocha

Brennan Senecal  
Genetics  
Gene Dosage May Explain Phenotypic Differences between Mutants in Arabidopsis  
Adviser: Estelle Hrabak

Hannah Siegel  
Biomedical Science  
Analysis of Phytoestrogens in Legumes through HPLC  
Adviser: Marta Lima

Heidi Simonneau  
Environmental Sciences, Justice Studies  
Effects of Dams on Water Quality  
Adviser: Wilfred Wollheim

Nathaniel Spada  
Marine, Estuarine and Freshwater Biology  
The Impact of Ocean Acidification on the Olfactory Abilities of Homarus americanus during Prey Acquisition  
Adviser: Winsor Watson

Ryan Spelman  
Biology  
Effect of Plant Cultivar on Efficacy of Biochemical Inducers for Suppression of Plant Diseases  
Adviser: Anissa Poleatewich

Casey Sturzo  
Animal Science  
Effect of Feeding Strategy on Growth and Body Composition of Striped Bass Cultured in Recirculating Systems  
Adviser: David Berlinsky

Andrew Sullivan  
Marine, Estuarine and Freshwater Biology  
Evolutionary Genomic Insights on Novel Trait Evolution in Hagfish  
Adviser: David Plachetzki

Emily Sullivan  
Biochemistry, Molecular and Cellular Biology  
Gdf1 Regulates Sphingolipid Metabolism in Acute Myeloid Leukemia  
Adviser: Brian Barth

Cody Symonds  
Wildlife and Conservation Biology  
Winter Tick Parasitism of Moose: Influence on Adult Cow Productivity and Winter Calf Mortality  
Adviser: Peter Pekins

Ivey Telles  
Genetics  
White-Nose Syndrome: Analysis of the Microbiome in Infected and Non-Infected Eptesicus fuscus  
Adviser: Matthew MacManes

Michael Thompson  
Wildlife and Conservation Biology  
How Surrounding Landscape Composition Affects Avian Diversity within Shrubland Habitat Patches  
Adviser: Matthew Tarr

Bonnie Turek  
Environmental Conservation and Sustainability  
Greenhouse Gas Ebulition in Streams of Varying Watershed Land Use and Sediment Composition  
Adviser: Wilfred Wollheim

Avery Van De Water  
Neuroscience and Behavior  
Dynamic Causal Modeling of the Speech Network in Stroke-Induced Apraxia of Speech  
Adviser: Donald Robin
Peter T. Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC

Poster Presentations & Oral Presentations

Saturday, April 27
9 a.m.–2 p.m.
Paul College

FIRE is an integrated, team-based, and game-like experience for first-year Paul College students. Through a series of challenges, students develop business plans that are presented at this year-end finale, which features poster and oral presentations on students’ business plans and concludes with a “Grand Challenge Round.”

Grand Challenge: Energy

Team: You Know What’s Better Than 24...25

Adviser: Jocelyn Petry

Jacob Abdallah
Patrick Carey
Natalie Haddon
Ethan Keslar
Eryn Pierce
Christopher Ploss
Dominic Silverio
Morgan Smith
Brook Soucy
Kyle Spagnuolo
John Standish
Kemal Warouw
Joshua Woods

Adviser: Sarah Walker

Biological and Environmental Sciences
Characterizing STAT3 Activity in Cisplatin-Sensitive and -Resistant Ovarian Cancer Cells

Adviser: Marta Lima

Biological Sciences
The Role of Chitosan in Improving Plant Iron Deficiency Chlorosis

Adviser: Cheryl Marie Andam

Genetics
Exploring the Potential of Marine Actinobacteria as Source of Novel Antibiotics

Adviser: Cheryl Marie Andam

Environmental Sciences
Impact of Nitrogen Inputs on Plant Composition at a New Hampshire Fen

Adviser: Ruth Varner

Team: Fireball

Adviser: Alana Hovey

Garrett Allen
Izaiah Barba
Patrick Cotter
Nicholas Horn
Cory Jones
Samuel Kehoe
Kyra LaDue
Emma LaPosta
Giuliana LaRose
Olivia Viall
Ryan Visich
Brittney Walker
Teddy Wesche
Hannah Wirth

Business Administration

Jack Falvey
David Thurston

Undeclared

Team: Fire Department

Adviser: Jennifer Lueke

Alexander Amigo
Olivia Balabanis
Emma Coakley
Benjamin Humphreys
Shane Kelley
Quinn Mantegari
Thomas Meagher
Merrimac Moran
Alexis Parliman
Haley Robertson
Zachery Scheib
Owen Sullivan
Riley Wigmore

Business Administration

Johnny Geraci
Stewart Kirkpatrick
Kelsey MacLeod
Wyatt Quinlan

Undeclared
Team: Paul Blart
Adviser: Kosta Triantafillakos
Austin Baird
Megan Bufagna
Timothy Campbell
Benjamin Cappiello
Olivia Deem
Owyn Desrochers
Luke Downie
Jack Driscoll
Drew Kibby
Dylan Oakes
Matthew Perry
Devon Pierre-Louis
Kayla Prusik
Business Administration
Lillian Bennett
Mark Borak
Madison Sullivan
Undeclared

Team: Dunder Mifflin
Adviser: Jemina Shepherd
Emily Bolognino
Nicholas Colabatistto
Matthew Connolly
Killian Dowd
Camden Hearn
John Helmanis
Wesley Kunin
Liam Lake
Isabella Lovering
Thurston Mann
Dustin Rose
Samuel Shepard
Carter Snow
Economics
Spencer Burgess
Jack Kelly
Business Administration
Brianna Jones
Kaleigh Reynolds
Vanessa Rodolosi
Undeclared
Robbie McGahan
Finance

Team: Fire Five
Adviser: Devin McMahon
Sofia Barrett
Alexis Butler
Max Chisholm
Justin Diamantopoulos
Curtis Grundy
Jessica Huth
Conor Jowett
Julia Lambert
Sarah McIlroy
Peter Mitchell
Georgi Munick
Andrew Onofrio
Cierra Slade
Samuel Taub
William White
Dan Wilhelmy
Riley Zaya
Business Administration
Liam Fay
Luke Geraci
Brendan Sullivan
Undeclared

Team: Hanzla’s Hungry Herd
Adviser: Hanzla Sheikh
Sarah Blampied
Jessica Ferrari
Ani Hastings
Jack Kelly
Andrew Martineau
William Needham
Undeclared
Christina Bomberg
Colin Buckley
Matthew Coda
Nathaniel Cohen
Ryan Dooley
Justin Dragone
Ladd-Patrick Fagerson
Thomas Farrelly
Claudia Fox
Ivy Gogolin
Nicholas Lester
Stephen Simpson
Business Administration

Team: Big Pauler Brand
Adviser: Max Polay
Macquiere Beggin
Bryn Larkin
Brian Quinn
Shreya Yadav
Undeclared
Quinn Cantrill
Elizabeth Hart
Spencer Leger
Cameron McNally
Matthew Morrison
Chloe Otterbeck
Jacob Parilla
Hailey Parker
Andrea Price
Zachary Rinkus
Jonah Rook
Ashley Round
Isabelle Smith
Business Administration
Kyle Ferreira
Finance

Grand Challenge: Housing

Team: Peter T. Prodigies
Adviser: Natalie Mahoney
Brooke Adelmann
Ashley Aversano
Shawn Bedard
Sydney DeJager
Victor Djoletto
Jacob Duffy
Rayhan Khan
Aidan Lawlor
Grace MacDonald
Nic Malecha
Andy Mino
Jack Mulhare
Emily O’Keefe
Ethan Oglesby
Andrew Philbrick
Business Administration
Joseph DeMarco
Juliana Farnam
Victoria Palumbo
Undeclared
Jordan Phillips
Economics
<table>
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<th>Team: Dos Siete</th>
<th>Team: Pauls of Fire</th>
<th>Team: Team 3 Hospitaliteers</th>
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<tr>
<td>Adviser: Andrew Kelly</td>
<td>Adviser: Brittney Wallace</td>
<td>Adviser: Ruth Smith</td>
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<td>Bryan DeCristoforo</td>
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<td>Patrick Finnie</td>
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<td>Kathleen Flath</td>
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<td>Nicholas Miraglia</td>
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<td>Hospitality Management</td>
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<td>Ethan Tumeinski</td>
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<td>Sophia St. Jacques</td>
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<table>
<thead>
<tr>
<th>Team: The Goats</th>
<th>Grand Challenge: Infrastructure</th>
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<tr>
<td>Adviser: Emily Rich</td>
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<td>Adviser: Connor Cote</td>
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<td>Richard Hartnett</td>
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</tbody>
</table>
Team: A Buncha Dimes
Adviser: Gianna Alberici
Nicholas Bernardo
Jack Brown
Camille Bruen
Michael Dambach
Alicia Hanlon
Courtney Jacques
Richard Jean
Rebecca Milbury
Gregory Minichiello
Matthew Thomas
Kaitlyn Yee
Undeclared
Aran Cherouvis
Dominick DelGavio
Zachary Edwards
Julie Gagnon
Ryan Gallagher
Emily Graves
William Sabatino
Business Administration
Nathaniel Kelly
Economics

Team: Clean 16
Adviser: Madeline Karlberg
Anders Brucker
Conner Furtado
Briella Hirsch
Iraklis Pagounes
Nicole Petry
Kyle Rayment
Maxim Sirmaian
Nathaniel Sodders
Abigail Stoehr
Ian Stromski
Business Administration
Ryan Johnson
Adam Leech
Christopher Nanni
Grace Nealon
Hailley Simpson
Gabrielle Sott
Undeclared
Christina Soule
Economics

Team: Fire at Will
Adviser: Nicholas Snedegar
Hannah Cloutier
Yaniv Kaptsan
Matthew Lamarche
Jonathan Leone
Morgan McKenney
Lauryn Murray
Nick Pottle
Shafer Rancourt
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Business Administration
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James McGrath
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Undeclared

Team: Strictly Business
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Nikolas Papa
Jackson Pierson
Jake Tuleja
Evan Vogler
Undeclared
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Steve Chartier
Joseph Cipollone
Kelly Hamlin
Jacob Post
Emily Szubinski
Ryan Verrier
Dylan Weir
Business Administration
Matthew O’Neill
Economics

Grand Challenge: Robotics

Team: Big Paulers
Adviser: Emma Blatt
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Business Administration, Finance, Marketing

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Jill Durkin
Henry Piacquad
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Shane Murphy
Colin Sprague
Analytical Economics
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Christopher Mudrick
Brahim Yatim
Zachary Yeaton
Economics

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Niko Kakouris
Nicolas Towey
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Kagen Robertson
Victoria Rothwell
Samuel Slobin
Andy Yang
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Kendrick Shaw
Hospitality Management
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Peder Syvertsen  
Economics  
Margo Lieb  
Margaret Wade  
Undeclared  
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Business Administration

Team: Good Luck Charlie  
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Mitchell Dreyer  
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Phoebe Myers  
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Austin Wentzel  
Nicole Yelle  
Business Administration  
Ashim Gurung  
Jillian Lawrence  
Kayla Magwood  
Myles Maloof  
Undeclared

Siran Cinar  
Chemistry  
Synthesis of Proline Derivatives for Incorporation into Phosphonamino Acid-Based Inhibitors of Metallo-β-Lactamase Enzymes  
Adviser: Marc Boudreau

Hannah Coco  
Chemistry  
Chiral Enhancement of Carbon Dots Synthesized from Amino Acids and Their Applications in Amyloid-Beta 42 Fibrillation  
Adviser: Christine Caputo

Noah Cote  
Chemistry  
Synthesis of 2,3-Benzooxepin for Comparative Two Electron Oxidation Studies with Cerium(IV) Ammonium Nitrate and Cytochrome P450  
Adviser: Arthur Greenberg

Ann Manchester Kelley  
Nursing Inquiry Day  
Thursday, May 2  
12–4 p.m.  
Memorial Union Building, Strafford Room  
This event features scholarly presentations by undergraduate Honors students and Graduate Program students in Nursing.

Chemistry Department  
Poster Exhibition  
Thursday, May 2  
3–4:30 p.m.  
Parsons Hall, Southwest Lobby  
The Chemistry Department Poster Exhibition is the result of students’ year-long senior thesis research in such areas as organic, inorganic, physical or analytical chemistry, and under the direction of their research adviser.
Sarah Harvey
Chemistry, Neuroscience and Behavior
Peptide Neurotransmitters and the Opioid Crisis
Adviser: Margaret Greenslade

Christopher LaSalle
Chemistry
Styrene-Based Single-Chain Nanoparticles via Atom Transfer Radical Coupling: Structural and Electronic Effects
Adviser: Erik Berda

Alexis Little
Chemistry
The Scientific and Social Effects of Major Drug Neurontin
Adviser: Margaret Greenslade

Michael Moheban
Chemistry
Synthesis of Inorganic N-Heterocyclic Carbene Derivatives for Transition Metal Catalysis
Adviser: Christine Caputo

Eliza Mullen
Chemistry
Comparison of Fertilizing Practices Used in Industrial and Organic Agriculture
Adviser: Margaret Greenslade

Walkania Santos Regaldo
Biomedical Science
Finding Alternative Ways to Synthesize Precursors for Small Molecule Inhibitors of β-Lactamase Enzymes
Advisers: Marc Boudreau, Deisy Pena-Romero

Nathan Shipley
Chemistry
Controllable Synthesis of Single-Chain Nanoparticles via ATRC
Adviser: Erik Berda

Alexander Tognazzi
Chemistry
Investigation into the Oxidative Properties of In-Capillary Electrodes for Electro-Spray Ionization Mass Spectrometry
Adviser: Anyin Li

Katelyn Wentworth
Chemistry
Novel Synthetic Applications of Benzyl Cation Chemistry
Adviser: Richard Johnson

Peter T. Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition

Championship Round

Wednesday, May 8
1–4:30 p.m. Teams Pitch Ideas
4:30–6:15 p.m. Reception/Awards

Paul College

This competition takes students out of the classroom and into the real world. Students are required to research and prepare strategies for commercializing new products and services, which they present to a panel of industry judges. Prizes are awarded for the most feasible and fundable approaches for starting, acquiring, or expanding a business venture.
Acknowledgments

The UNH Undergraduate Research Conference has grown to become a signature event at the University and one of the largest and most diverse conferences of its kind. Bringing the URC to fruition each year is the result of a collaborative network of many community members across campus. Here, we acknowledge these individuals and campus units and thank them for helping to make the 2019 URC happen.

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Mike Annicchiarico, Student Composers’ Concert
Carole Berry and Tara Hicks Johnson, Interdisciplinary Science & Engineering (ISE) Symposium
Anne Broussard and Marc Smick, CHHS Grimes Award Competition
Daniel Budak and Jovana Milosavljevic-Ardeljan, Graduate Research Conference
Holly Cashman, Languages, Literatures, and Cultures Department URC
Szu-Feng Chen and Tom Payne, The Naked Arts—Creativity Exposed!
Andrew Earle and Eileen Laskowski, Paul College Holloway Prize Competition; Nelson Poster Competition
Maureen Gillespie, Psychology Department George M. Haslerud URC
Julee Holcombe, Senior B.A., B.F.A., & M.F.A. Exhibition
Delia Konzett, Honors English URC
Melda Ormeci Matoglu, Paul College URC
Elizabeth Mellyn, History Department URC
Dana Pierce and Mary Young, UNH Manchester URC
Roy Planalp and Cindi Rohwer, Chemistry Department Poster Exhibition
Joanne Samuels, Ann Manchester Kelley Nursing Inquiry Day
Nick Smith, Philosophy Department URC
Richard Smith and Pamela Wildes, COLSA URC
Sean Stewart, Paul College FIRE URC

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Abdallah, Jacob 57
Abel, Daniel 19
Abraham, Quincy 25
Achorn, Brienna 52
Adamkowski, Vajl 7
Adams, Benjamin 10
Adams, Franchesca 33
Adams, Jake 42
Adelmann, Brooke 58
Agran-St.Pierre, Sonnet 12
Ahearn, Austin 12
Ahonen, John 33
Aiken, Kathryn 45
Akiki, Marie 33
Albert, Paige 59
Alden, Daroc 13
Alhamdan, Nooran 39
Ali, Rezwan 10
Allen, Garrett 57
Alley, Rye 60
Al-Matrouk, Fouad 46
Almquist, Emily 27
Alsted, Madison 14
Amador, Sharlene 25, 33, 51, 52
Amico, Zachary 18
Amigo, Alexander 57
Anastasi, Ryan 42
Andersen, Kyle 46
Anderson, Claire 59
Anderson, Gracie 60
Anderson, Hunter 14
Anderson, Jakob 14
Anderson, Jeffrey 42
Anderson, Tristan 19
Andes, Charles 48
Andonian, Joshua 46
Andrade, Nicholas 17
Andreasen, Sean 42, 43, 48
Andronaco, Zachary 9
Andwood, Benjamin 18
Annis, Kevin 49
Antman, Alyssa 26
Antonellis, Erica 60
Argue, Catherine 18
Arling, Christopher 17
Armand, Cameron 42
Arnold, Travis 60
Arscott, Cory 61
Asbury, Griffin 39
Aubry, Caroline 26
Aung, Win Phy Phyu 44, 46

Autio, Sophia 60
Aversano, Ashley 58
Avery, Rachel 7
Bach, Jasmin 22
Bachry, Olivia 46
Badala, Sophia 61
Badylak-Real, Christin 18
Bagarella, Joseph 59
Bagnardi, Amanda 51, 52
Bahler, Rebecca 60
Bailley, Rebecca 46
Bailley, Ryan 18
Baird, Austin 58
Baker, Ian 17
Baker, Meredith 33
Balabanis, Olivia 57
Balaska, Audrey 18
Balcom, Emily 11
Ball, John 27, 52
Balsamo, Joseph 14
Balsley-Petkas, Ais 59
Balstad, Bethany 52
Bandera, Victoria 32, 50
Bangma, Philip 17
Banker, Isabelle 24
Banks, Zach 60
Barakian, Matthew 10
Barba, Izaiha 57
Barbuto, Jennifer 15
Barden, Marisa 20
Bardwell, Spencer 51
Baribault-Lee, Elise 17
Baron, Jeffrey 26
Barone, Richelle 40
Barrett, Sofia 58
Barricklow, Matthew 17
Barrows, Jenna 59
Barrows, Maddison 52
Bartlett, Cole 41
Bartlett, Shane 46
Barton, Andrew 20
Barton-Schwartz, Riley 61
Barucci, Francesca 10
Baum, Hannah 31
Baumgartner, Morgan 34, 38, 52
Bayus, Ava 61
Bean, Cameron 48
Bean, Emily 30
Bean, Samuel 17
Beanland, Jacob 30
Beard, Emily 52
Beaudreau, Regan 17
Beauregard, David 59
Bechtold, Michael 48
Beck, Rachel 61
Bedard, Alec 42
Bedard, Shawn 58
Bejjin, Macguire 58
Begin, Paige 10
Beler, Juliana 27
Belise, Emily 12
Bellingheri, Francesca 46
Benabdellah, Issam 14
Benajmins, Peter 12
Benner, Aidan 52
Bennett, Kathleen 42
Bennett, Kathryn 15, 30, 51, 52
Bennett, Lillian 58
Benoi, Emily 36
Benson, Brooke 9
Benson, Gage 42
Bentley, Clayton 30, 42
Benware, Sarah 10
Benardo, Nicholas 60
Bernardo, Castine 11
Berry, Emily 34, 52
Berube, Brandon 59
Bettor, Claire 62
Bevilacqua, Nicholas 46
Bezanzon, Jodi 30
Bianchi, Anthony 9
Bianco, Tristen 31, 37
Bice, Alexander 42, 46
Bickford, Allison 15
Bilodeau, Shane 59
Blais, Nathan 15, 52
Blais, Sawyer 17
Blampied, Sarah 58
Blatti, Ryan 17
Bliss, Orrin 16
Blodgett, Ais 16, 27, 34
Bocko, Matthew 14
Bohan, Jordan 61
Bolds, Allison 34, 50
Bolognino, Emily 58
Bomberg, Christina 58
Bondanza, Courtney 42
Booth, Sydney 62
Borak, Mark 58
Boury, Riley 26, 34
Bost, Charles 46
Botticelli, Brooke 46
Boudreau, Matthew 47
Boudreau, Ryan 9
Boulanger, Alexis 20
Boulanger, Jared 42
Bourbeau, Alexis 47
Bourne, Emily 31
Bouzianis, Stephen 42, 44
Bovie, Adam 24, 37
Bowring, Ryan 13, 37
Boyle, Douglas 44
Boyesen, Adeline 6, 8
Brachman-Pappas, Kaliee 27
Brady, Samantha 16
Brander, Ryan 25
Brennan, Melissa 40
Brennan-Mungovan, Brooke 20, 22
Brennen, Kory 7
Brewer, Kyle 17
Brewer, Zachary 20
Bright, Sumner 30
Brott, Lauren 44
Broadhurst, Jillian 52
Broadwater, Samuel 49
Brod, Aaron 20
Broder, Zachary 59
Brogioli, Eric 44
Brophy, Brian 17
Brown, Brian 39
Brown, Bryce 42, 44
Brown, DaniaRose 18
Brown, Jack 60
Brown, Jessica 51
Brown, Julian 34
Brown, Nicholas 41
Brown, Peter 39, 44
Brown, Tanner 60
Brucker, Anders 60
Bruen, Camille 60
Bruni, Antonio 47
Bryan, Riley 13
Bryant, Shannon 27, 50
Buck, Hailey 27
Buckley, Colin 58
Buckman, Cody 12
Buell, Landon 19
<table>
<thead>
<tr>
<th>Name</th>
<th>Class Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bufagna, Megan</td>
<td>58</td>
</tr>
<tr>
<td>Buford, Elizabeth</td>
<td>36</td>
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<td>58</td>
</tr>
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<td>26, 30</td>
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<td>42</td>
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<td>58</td>
</tr>
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<td>58</td>
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<td>23</td>
</tr>
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<td>38</td>
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<td>16, 34, 52</td>
</tr>
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<td>59</td>
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<td>Cassidy, Julia</td>
<td>47</td>
</tr>
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<td>13</td>
</tr>
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</tr>
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<td>14</td>
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<td>37</td>
</tr>
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<td>17</td>
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<tr>
<td>Cesko, Jasmina</td>
<td>34, 52</td>
</tr>
<tr>
<td>Chambers-O’Bryan, Veronica</td>
<td>12, 31</td>
</tr>
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<td>29</td>
</tr>
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<td>23</td>
</tr>
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<td>39</td>
</tr>
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<td>Chancey, Danielle</td>
<td>53</td>
</tr>
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<td>47</td>
</tr>
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<td>Chapman, Aaron</td>
<td>17</td>
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<td>Chapman, Keyton</td>
<td>62</td>
</tr>
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<td>Chapman, Shelby</td>
<td>17</td>
</tr>
<tr>
<td>Chaput, Derek</td>
<td>20, 22</td>
</tr>
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</tr>
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<td>60</td>
</tr>
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<td>53</td>
</tr>
<tr>
<td>Chauncey, Brooke</td>
<td>20, 21, 22</td>
</tr>
<tr>
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<td>60</td>
</tr>
<tr>
<td>Chen, Michelle</td>
<td>9</td>
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<td>59</td>
</tr>
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<td>58</td>
</tr>
<tr>
<td>Cherouvix, Aran</td>
<td>60</td>
</tr>
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<td>Cherouvix, Devon</td>
<td>48</td>
</tr>
<tr>
<td>Chessie, Joseph</td>
<td>53</td>
</tr>
<tr>
<td>Chieffalo, Taylor</td>
<td>31</td>
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</tr>
</tbody>
</table>
Demeo, Robert  61
Demetroulakos, Gianna  44
Deplitch, Alexis  48
Derouin, Amber  7
Deshaies, Brian  42
Desrochers, Owyn  58
DeStefano, Lauren  60
Devereaux, Ciara  30, 34
DeVries, Diane  53
Dexter, Nathanial  47
Dezurick, Brian  44
Diamantopoulos, Justin  58
Diamond, Sean  12
DiBenedetto-Paris, Dylan  17
Dicker, Alexander  33
Diggins, Noah  17
DiGravio, Caroline  62
Dill, Dreyton  61
Ding, Qinyuan  39
Dinh, Dung Tri  43
Dinsmoor, Adrianna  59
Dion, Elizabeth  61
DiPallina, Matthew  13
Dipersio, Grace  34
DiRocco, Daniel  53
DiStasio, Brett  61
Distaso, Nicholas  48
Diver, Caitlin  59
Dixon, Cameron  46
Djolet, Victor  58
Dodge, Jessica  40
Dioder, Brett  62
Dogil, James  43
Doherty, Matthew  40
Dombroski, Katherine  62
Domenico, John  28, 33, 50
Donahue, Brendan  62
Donahue, Hannah  60
Donahue, Jake  59
Donahue, Lauren  43
Donahue, Ryan  30
Donnelly, Christopher  61
Donovan, Brianna  25
Donovan, Colleen  51, 53
Donovan, Haley  61
Donovan, Maura  28, 53
Dooley, Ryan  58
Doolin, Danielle  42
Dorrance, Anna  53
Dorrell, Jeremy  48
Dos Santos Koch, Maria Eduarda  59
Doucette, Benjamin  47
Dow, Colin  59
Dowd, Evan  16
Dowd, Killian  58
Downey, John  62
Downie, Luke  58
Downst, Robert  16
Drohan, Christopher  45
Dragone, Justin  58
Drew, Ethan  22
Dreyer, Mitchell  62
Driscoll, Charles  41
Driscoll, Jack  58
Driscoll, Mark  62
Drouin, Blake  61
Drukker, Dow  26
Ducarme, Jason  49
Dudley, Katelyn  17
Duffy, Jacob  58
Duffy, Jonathan  47
Dumond, Lindsey  61
Dumont, Noah  16
Dunn, Payson  19
Dunphy, Colleen  53
Dunson, Morgan  12
Durant, Matthew  17
Durkin, Jill  38, 61
Dusseault, Bret  18
Dutile, Joseph  11
Dwyer, Bryan  32
Dyac, Sarena  34
Dyke, Allison  7, 21
Dyke, Ethan  5, 21
Dysart, Emily  59
Dziadowicz, Kathryn  11
Eakman, Tialyn  16, 34, 52
Easterbrook, Allison  34, 53
Easterling, Jacob  16
Eatton, Jake  30
Eaves, Olivia  21
Eddleman, Christina  12
Edminster, Kayla  59
Edwards, Zachary  60
Ehrich, Valerie  43
Eiken, Jeffrey  43
Ejly, Madeleine  39
Eldredge, Chase  17
Ellison, Richard  41
Ellsworth, Ryan  61
Emory, Dominic  11
England, Evan  26
English, Megan  53
Ensinger, Mitchell  53
Enwright, Devon  53
Erickson, Grant  11
Erickson, Molly  53
Esposito, Eric  61
Estabrook, Abigail  59
Estes, Olivia  47
Evans, John  48
Evans, Mackenzie  21
Exton, Christian  43
Faddoul, Emma  53
Fagerson, Ladd-Patrick  58
Faiella, Daniel  6, 23
Falco, Isabella  40
Falvey, Jack  57
Farley, Jesus  42
Farmer, Olivia  59
Farman, Julianna  58
Farnham, Faith  28
Farrell, Jack  38
Farrelly, Thomas  58
Farrington, Kyle  61
Fay, Liam  58
Fay, Zachary  43
Fehr, Benjamin  16, 53
Ferreydooni, Kimia  17
Ferreydooni, Nadia  15
Fernandes Wilson, Sara  11
Ferrari, Jessica  58
Ferreira, Kyle  58
Ferrari, Madison  24
Ferretti, Domenic  60
Ferrier, Rowan  39
Ferris, Melissa  40
Ferrullio, Matthew  12
Ffrench, Ian  37
Fiala, Justin  10
Filion, Sarah  26, 53
Filipanic, Eliza  46
Finigan, McKenzie  16, 34, 52
Finnie, Patrick  59
Finton, Matthew  49
Fiore, Ashlee  53
Fischer, Katelyn  45
Fischer, Timothy  54
Fischer, Travis  54
Fishbaugh, Austin  13
Fitter, Noah  15
Fitzgerald, Nicholas  6
Flaherty, Amanda  46
Flanagan, Timothy  13
Flannery, Kelsey  31
Flath, Kathleen  59
Fleckenstein, Jordan  37
Flores, Rachael  10
Floyd, Tia  37, 40
Flynn, Lauren  33
Flynn, Sean Patrick  62
Fopiano, Ashley  42
Fortuna, Olivia  54
Fortune, Ashley  15
Foster, Christopher  23
Foster, Zachary  42
Foulks, Jonah  47
Fournier, Cameron  13
Fox, Claudia  58
Francis, Jameela  16, 27, 34
Francis, Nicholas  10
Franks, Victoria  37
Frechette, Jessi  17
Frechette, Katelyn  47
Freitas, Julie  62
Freitas, Matthew  61
French, Logan  62
Freund, Julissa  11
Friedman, Jeremiah  54
Friese, Crystina  28, 39
Froburg, Benjamin  18
Frost, Nathan  18
Frye, Logan  22
Furrow, Justin  54
Furtado, Conner  60
Fusco, Samantha  48
Gabor, Jacob  36
Gage, Garrison  13
Gagne, Lauren  15
Gagnon, Julie  60
Gagnon, Lucas  17
Gagnon, Natalie  57
Gagnon, Olivia  61
Gaidos, Ryan  18, 34
Gale, Julian  23
Gallagher, Jennifer  7, 23
Gallagher, Ryan  60
Gallagher, Ryen  30
Gallant, Matthew  21
Gallo, Olivia  59
Galvan, Ezequiel  12
Gamache, Jason  59
<table>
<thead>
<tr>
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<tbody>
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