Welcome to the UNH Undergraduate Research Conference

For 21 years, the URC has been UNH’s premier celebration of our students’ innovative research and academic excellence and our faculty’s dedication as mentors and scholars. This year’s virtual URC has certainly challenged them to be more creative and determined than ever.

The suspension of in-person classes and on-campus events came as more than 1,800 URC student participants were preparing their final projects and presentations, many of which represented years of hard work, inquiry and experimentation. The rapid response of our faculty and staff to create a virtual URC experience reflects the remarkable character that defines our Wildcat community at its best.

The research projects that you will see online are the result of a shared, unwavering commitment to excellence at UNH, even in the face of a daunting global crisis, and will prepare our students for lifetime success in a dynamic world. As you view the URC virtually, we think you will be as impressed and as proud as we are.

Thank you for visiting the virtual URC, and for supporting New Hampshire’s flagship public university.

Best regards,

James W. Dean Jr.
President

Wayne Jones
Provost and Vice President for Academic Affairs
Welcome to the 21st 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. 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 and showcasing all stages of the research process — including the final stage of communicating research findings to the wider public. For many UNH students, the URC is their first opportunity to present their work to a broad audience. The URC is thus vital in giving students practice in public speaking, communicating complex ideas to a general audience, 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.

This year, of course, has brought extraordinary challenges — to our world, and to our University. By the March 4th URC registration deadline, 1,861 students — mentored by over 420 faculty members and other research advisers — had registered to present their research and scholarship at more than 20 in-person URC events on the Durham and Manchester campuses. Just one week later, COVID-19 was declared a global pandemic, and one week after that, UNH shifted to remote operations. With the help of UNH’s Academic Technology, Hamel Center staff and individual URC event coordinators University-wide made quick work of shifting the URC to a virtual event. Due to such an abrupt shift in planning, not all unique events were able to go forward virtually; and, for a variety of reasons, not all students were able to participate in the virtual URC.

But, thanks to the resourcefulness, creativity, and spirit of our UNH community, the virtual URC was a resounding success, with 1,374 students — a full 74% of those who registered for in-person events — presenting their research, scholarship, and creative work.

In the pages that follow, we want to acknowledge all of the in-person events that had been planned for URC 2020, as well as all of the students who intended to present at one or more of those events, before the disruptions of COVID-19. The students who were able to present at the virtual URC are noted with an asterisk (*).

This year more than ever, we also 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 Leger, M.A.
URC Coordinator, Hamel Center for Undergraduate Research
URC 2020 Contents

Thursday, April 16 Events
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition (Charles & Miriam Nelson Poster Competition)

Friday, April 17 Events
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Paul J. Holloway Prize Innovation to Market Competition (Bud Albin Challenge Round)
Senior B.A. & B.F.A. Exhibition
Student Composers’ Concert

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UNH Manchester URC Oral Presentations

Wednesday, April 22 Events
Interdisciplinary Science and Engineering (ISE) Symposium
The Naked Arts—Creativity Exposed! (Act I)
UNH Manchester URC Poster Presentations

Thursday, April 23 Events
UNH Manchester URC Cinema Arts Day
History Department URC
The Naked Arts—Creativity Exposed! (Act II)
Philosophy Department URC

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Poster Presentations, Session A
Oral Presentations, Session B
Poster Presentations, Session B
Oral Presentations, Session C

Paul College of Business and Economics URC
Poster Session I
Poster Session II
Poster Session III
Oral Session

UNH Manchester URC Engineering Technology Day
Senior Project Presentations
The Naked Arts—Creativity Exposed! (Act III)
College of Health and Human Services (CHHS) Grimes Award Competition
Psychology Department George M. Haslerud URC
Honors English URC
Languages, Literatures, & Cultures (LLC) Department URC

Saturday, April 25 Events
College of Life Sciences and Agriculture (COLSA) URC
Oral Presentations
Poster Presentations
Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC

Wednesday, April 29 Events
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Wednesday, May 6 Events
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition (Championship Round)

Additional Features
Acknowledgments
Student Index
**Peter T. Paul College of Business and Economics**  
**Paul J. Holloway Prize Innovation to Market Competition**

**Charles & Miriam Nelson Poster Competition**

**Thursday, April 16**  
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 17**  
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.

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**Senior B.A. & B.F.A. Exhibition**

**Friday, April 17**  
This annual show celebrates the achievements of graduating art students from the UNH Department of Art and Art History.

Adviser: Sachiko Akiyama

**Kristina Czoschke**  
Fine Arts  
*Narrative through Time*

**Sage Gould**  
Fine Arts  
*Identity and Representation through Creative Expression*

**Allison Hoey**  
Art: Art History, Fine Arts  
*Figurative Painting: Exploration and Discovery*

**Madison Madore**  
Fine Arts  
*Cyanotype in Motion*

**Tejas Moses**  
Fine Arts  
*Wild Clay*

**Lansing Ward**  
Fine Arts  
*A Study of Photographic Presentation: The Act of Looking*

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**Student Composers’ Concert**

**Friday, April 17**  
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  
*Duo for Saxophones*  
Advisers: Michael Annicchiarico, Christopher Kies

**Henry Amery**  
Music  
*The Farm Is Quiet Now*  
Adviser: Alex Favazza

**Ethan Giles**  
Music Education  
*Four Dances for Woodwind Trio: I. Waltz of Beginnings II. Distorted Rhumba III. Dark Serenade IV. Awakening/Finale*  
Adviser: Michael Annicchiarico

**Kylie Smith**  
Music Education  
*Sundown*  
Adviser: Michael Annicchiarico

**Kylie Smith**  
Music Education  
*The Loon*  
Adviser: Michael Annicchiarico

**Bryan Whittier**  
Music  
*John Greenleaf Whittier Composition 3*  
Adviser: Michael Annicchiarico

**Spencer Wiles**  
Music  
*I Think of You* from a Yet-to-Be-Named Musical  
Adviser: Michael Annicchiarico
UNH Manchester  
Undergraduate Research  
Conference

Oral Presentations

**TUESDAY, APRIL 21**
The UNHM URC Oral Presentations  
feature formal scholarly presentations and/or multimedia presentations reflecting the students’ research interests.

Rachel Avery*
English, History  
Social Dissent and New England Folk Music in the Mid-Twentieth Century  
Adviser: Kristen Woytonik

Danielle Johnson*
History  
“America Preaches Integration and Practices Segregation”: Integration in American Public Schools 1950-1990  
Adviser: Kristen Woytonik

Brian Lundgren*
History  
Last Refuge: The Jewish Refugee Experience in Shanghai  
Adviser: Kristen Woytonik

Mekalia Mason-Rollins
American Sign Language (ASL)/English Interpreting  
RA Survival Guide: Supporting the Next Wave of UNHM Res Life Leaders  
Adviser: Lisa Enright

Nicole Reed  
Neuropsychology  
Effects of Multiple Concussive and Subconcussive Impacts on Driving Function under Cognitive Load  
Adviser: Daniel Seichepine

Vishnu Soni*
Neuropsychology  
A Special Case in Motion-Induced Blindness  
Adviser: John Sparrow

Daniel St. Cyr*
History  
The Imagery of Memorialization in the Northern Irish Troubles  
Adviser: Kristen Woytonik

Interdisciplinary Science & Engineering (ISE)  
Symposium

Poster Presentations

**WEDNESDAY, APRIL 22**
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.

**Chemical Engineering**

Group Leader: Young Jo Kim

Jacob Andrzejczyk
Chemical Engineering  
Comparison of Machine Learning Techniques to Improve Free-Energy Landscape Reconstruction  
Adviser: Harish Vashisth

Kirk Badger  
Chemical Engineering  
Metal Organic Frameworks’ Potential as Biosensors  
Adviser: Craig Chapman

Ryann Boudreau  
Bioengineering

Rachel Yee
Biochemistry, Molecular and Cellular Biology  
Injectable Gelatin-Silk Fibroin Composite Hydrogels for In Situ Cell Encapsulation  
Adviser: Kyung Jae Jeong

Jason Brown
Bioengineering

Vishnu Soni*
Neuropsychology  
A Special Case in Motion-Induced Blindness  
Adviser: John Sparrow

Daniel St. Cyr*
History  
The Imagery of Memorialization in the Northern Irish Troubles  
Adviser: Kristen Woytonik

Noah Fioravante  
Chemical Engineering  
Biodiesel Production from Edible Oil Using Heteropoly Acid Catalysts at Room Temperature  
Adviser: Nan Yi

Mrinal Ganash  
Bioengineering  
Spore Surface Display of Plastic Degrading Enzymes  
Adviser: Kang Wu

Griffin Kane
Bioengineering  
Intein-Mediated Approach to Protein Purification on Spores of Bacillus Subtilus  
Adviser: Kang Wu

Daniel Kennedy
Bioengineering

Ian Root
Bioengineering  
Free Oligosaccharide LC-MS/MS Analysis for Prebiotic Glycan Assessment  
Adviser: David Ashline

Jason Lam
Bioengineering  
The Role of STAT3 in Ovarian Cancer Sphere Formers  
Adviser: Sarah Walker

Patrick Lawton
Bioengineering  
Molecular Simulation Studies of Kinase Enzymes for Potential Cancer Therapeutics  
Adviser: Harish Vashisth

Gabriela Misiewicz
Bioengineering

Valerie Mores
Chemical Engineering  
Copper Crystal Growth  
Adviser: Dale Barkey

John Moynihan
Bioengineering  
Molecular Dynamics Simulations of Proteins  
Adviser: Harish Vashisth

Mrinal Ganash
Bioengineering  
Spore Surface Display of Plastic Degrading Enzymes  
Adviser: Kang Wu

Griffin Kane
Bioengineering  
Intein-Mediated Approach to Protein Purification on Spores of Bacillus Subtilus  
Adviser: Kang Wu

Daniel Kennedy
Bioengineering

Ian Root
Bioengineering  
Free Oligosaccharide LC-MS/MS Analysis for Prebiotic Glycan Assessment  
Adviser: David Ashline

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The Role of STAT3 in Ovarian Cancer Sphere Formers  
Adviser: Sarah Walker

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Bioengineering  
Molecular Simulation Studies of Kinase Enzymes for Potential Cancer Therapeutics  
Adviser: Harish Vashisth

Gabriela Misiewicz
Bioengineering

Valerie Mores
Chemical Engineering  
Copper Crystal Growth  
Adviser: Dale Barkey

John Moynihan
Bioengineering  
Molecular Dynamics Simulations of Proteins  
Adviser: Harish Vashisth

Mrinal Ganash
Bioengineering  
Spore Surface Display of Plastic Degrading Enzymes  
Adviser: Kang Wu

Griffin Kane
Bioengineering  
Intein-Mediated Approach to Protein Purification on Spores of Bacillus Subtilus  
Adviser: Kang Wu

Daniel Kennedy
Bioengineering

Ian Root
Bioengineering  
Free Oligosaccharide LC-MS/MS Analysis for Prebiotic Glycan Assessment  
Adviser: David Ashline

Jason Lam
Bioengineering  
The Role of STAT3 in Ovarian Cancer Sphere Formers  
Adviser: Sarah Walker

Patrick Lawton
Bioengineering  
Molecular Simulation Studies of Kinase Enzymes for Potential Cancer Therapeutics  
Adviser: Harish Vashisth

Gabriela Misiewicz
Bioengineering

Valerie Mores
Chemical Engineering  
Copper Crystal Growth  
Adviser: Dale Barkey

John Moynihan
Bioengineering  
Molecular Dynamics Simulations of Proteins  
Adviser: Harish Vashisth
Nathaniel Nichols  
Chemical Engineering  
Mechanistic Studies of the Decomposition of Various Copper Salts  
Adviser: Nan Yi

Gregory Novotny  
Chemical Engineering  
Mechanistic Studies of the Anatase-to-Rutile Transition of Titanium Dioxide (MS-ART-TiO2)  
Adviser: Nan Yi

Emma Roberge  
Bioengineering  
Quantifying Mass Changes at a PEG Surface Complexed with aCyclodextrin  
Adviser: Jeffrey Halpern

Adam Rosenbaum  
Bioengineering  
Engineering Bacteria for the Cost-Effective Production of Antimicrobial Peptides (AMPs)  
Adviser: Kang Wu

Chemistry

Group Leader: Richard Johnson

Benjamin Adams  
Chemistry  
Quantitative Determination of Hydroxyl Surface Coverage on Waterborne Polymers  
Adviser: John Tsavalas

Sawyer Cawthern  
Chemistry  
Investigation of Controlled on Demand Self-Assembly/Disassembly of Polymer Nanostructures  
Adviser: Erik Berda

Amanda Gaudreault  
Chemistry  
Exploring Student Ideas of Evaporative Cooling with Liquid-Crystal Paper  
Adviser: Christopher Bauer

Amina Gusic  
Chemistry  
Evaluating the Quantitative Accuracy and Precision of Mass Spectrometer Analyzers Using Metal Isotopes  
Adviser: Anyin Li

Nicholas Heath  
Chemistry  
An Online Monitoring Fluidics System with Automated Data Collection for the Quantitative Analysis of Hypochlorite  
Adviser: Anyin Li

Julia Leary  
Chemistry  
The Synthesis and Electrochemical Analysis of Co-Complexes  
Adviser: Christine Caputo

Michael Moheban  
Chemistry  
Synthesis of a Novel Class of Compounds: Intramolecular N-heterocyclic Borole Frustrated Lewis Acid/Base Pair  
Adviser: Christine Caputo

Stephen Orlych  
Chemistry  
Singlet Fission in Polycanes for Photovoltaic Solar Cells  
Adviser: Craig Chapman

James Wilkes  
Chemistry  
Synthesis of Co- and Ni-Cyclam Complexes for CO2 Reduction  
Adviser: Christine Caputo

Ruotong Zhong  
Chemistry  
A Comparison of Different Precursors of Graphitic Carbon Nitride, Synthesis, and Application in Real Life  
Adviser: Gonghu Li

Civil & Environmental Engineering—Design

Group Leaders: Dave Eshan, Anthony Puntin

Alan Bauman*  
Matthew Golden*  
Wei He*  
Matthew Spurr*  
Connor Thompson*  
Civil Engineering  
Proposed Pedestrian Bridge over the Oyster River  
Adviser: Erin Bell

Ryan Boyle*  
Brian Duignan*  
Gabriel Faster*  
Nicole Sanborn*  
Civil Engineering  
Egmont Channel Range Rebuild  
Advisers: Jean Benoit, Raymond Cook, Anthony Puntin

Jordan Brock*  
Joseph Giaimichele*  
Kelsey Glidden*  
Chloe Loukes*  
Melanie Martell*  
Jacob Woodard*  
Civil Engineering  
Robert J Prowse Bridge Rehabilitation  
Advisers: Erin Bell, Donald Lussier, Anthony Puntin, Brett Rusnock

Nicholas Buonanno*  
Kyle Hamel*  
Benjamin Higgins*  
Connor Littlefield*  
Civil Engineering  
Bodwell Road Bank Stabilization Project  
Adviser: Eshan Dave

Chloe Carter*  
Nicole Haggerty*  
John Nader*  
Environmental Engineering  
Sawyer Hall*  
Environmental Engineering, Sustainability  
C-Lot Drainage and BMP Design Project  
Adviser: James Houle

Liam Cullinane*  
Melissa Lyford*  
Michael Menary*  
Bill Nguyen*  
Civil Engineering  
NH111 and NH151 Intersection Redesign Project  
Advisers: Kyle Kwiatkowski, Jo Sias

Griffin Curley*  
Jamie Fitzpatrick*  
Jared Grondin*  
Oliver Roy*  
John Sargent*  
Michelle Thibault*  
Civil Engineering  
Riverwalk Pavilion  
Adviser: Anthony Puntin
Margaret Fillion*
Matthew Hall*
Robert Joscelyn*
Spencer McKinnon*
Thomas Simoncelli*
Civil Engineering
Tuscan Village Development
Adviser: Kenneth Flesher

Tyler Gleason*
Daniel Martineau*
Robert Moon*
Elanor Clare Frances Price*
Civil Engineering
*Columbia Pacific Bio-Refinery Pipeline Trestle
Advisers: Robert Henry, Zack Jenkins

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**Civil & Environmental Engineering—Investigation & Assessment**

Group Leaders: Dave Eshan, Anthony Puntin

Ian Avery*
Bennett Newlove*
Civil Engineering

Ian Bentley*
Zachary Chamberlin*
Joseph Towle*
Environmental Engineering
Newmarket Waterfront Improvement Project
Adviser: Anthony Puntin

Matthew Bean*
Alessandro Caruccio*
Evan Shamim*
Ethan Snitker*
Civil Engineering
Feasibility Study of Recreation Trail Connecting Durham and Newmarket
Advisers: Kyle Kwiatkowski, Jo Sias

Matthew Carter*
Adam Minkema*
Leland Qua*
Environmental Engineering

Kyle Ruprecht*
Civil Engineering
Downtown Stormwater Improvement: Concord, NH
Advisers: Thomas Ballestero, Michael Collins

Jirias Charabati*
Civil Engineering, International Affairs

Jacob Simpson*
Samuel Wojtichowski*
Environmental Engineering

Zachary Sullivan*
Civil Engineering
Dover, NH MS4: Investigation Procedure and Sampling Kit Design
Adviser: James Malley

Alexander Croteau*
Marco Gioioso*
Sarah Moriarty*
Civil Engineering
Investigation of Metal Warehouse Roof Collapse
Advisers: Zach Chabot, Raymond Cook, Duncan McGeehan, Anthony Puntin

Nicola Elardo*
Meghan Otis*
Lana Pillsbury*
Environmental Engineering
UNH Water for Zamkutu
Adviser: James Malley

Patrick Hamill*
Zachary Harvell*
James Murphy*
Lucas Theoharis*
Environmental Engineering
Joshua Thibeault*
Civil Engineering
Hanover, NH 1,4 Dioxane Groundwater Remediation
Adviser: Paula Mouser

Madison Hastie*
Jacob Veronneau*
Civil Engineering
Albacore Museum Project
Advisers: Jean Benoit, Felix Devito

Keanon Peterson*
Civil Engineering
Zero-Waste in Whitefield, NH
Adviser: Anthony Puntin

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**Civil & Environmental Engineering—Research**

Group Leaders: Dave Eshan, Anthony Puntin

Nicholas Bouchard*
Evan Gwynne Davies*
Brenna Heinley*
Edward Mahoney*
Civil Engineering
NH DOT Bridge Model
Adviser: Robert Henry

Sian Davis
Civil Engineering
Global Opportunity for Tidal Turbines at Bridge Crossings
Advisers: Erin Bell, Martin Wosnik

Jacob DeLashmutt*
Brinton Dekreon*
Daniel Marek*
Civil Engineering
Drone Assessment of Potential Roof Top Failure from Snow Loads: A Business Model
Adviser: Jennifer Jacobs

Cal Govoni*
Jastine Tendi*
Mechanical Engineering

Sean Hopkins
Daniel Qua*
Alexa Trautz*
Environmental Engineering

Clara Miller*
Civil Engineering, Sustainability
Brayden Reichenbach*

Giovanni Guglielmi*
Environmental Engineering
Environmental and Economic Life Cycle Assessments of Water Droplet Processing and Traditional Waterjet Cutting
Advisers: Brad Kinsey, Weiwei Mo

Anna Lampman*
Jordan Meaney*
Environmental Engineering

Ross O’Neal*
Kyle Szewczyk*
Civil Engineering
Georgetown, ME Culvert Analysis Project
Adviser: Nancy Kinner
Hannah Miller*  
Civil Engineering  
The Spatial Distribution of Sediment Characteristics and Mercury Content within Local Impoundments  
Advisers: Julie Bryce, Anne Lightbody

Elijah Sorensen*  
Emma Thibodeau*  
Environmental Engineering  
Cassidy Yates*  
Environmental Engineering, Sustainability  
Meta-Analysis of PFAS in New Hampshire Groundwater  
Adviser: James Malley

**COLSA—Biology**

Group Leader: Krisztina Varga

Caitlin Borges  
Sustainability, Zoology  
Jessica Tremblay  
Zoology  
Impacts of Cyanotoxins on the Death of Seabirds: Cyanotoxins in By-Caught Red-Throated Loons, Common Loons, and Greater Shearwaters  
Adviser: James Haney

Gianna DeMarco  
Zoology  
The Effect of Predator Cues on Carpenter Ants’ Worker Task Efficiency  
Adviser: Leslie Curren

Samantha Dionne*  
Biomedical Science  
Cognitive Abilities of Caribbean Hermit Crabs in Navigating a Known Location  
Adviser: Leslie Curren

Emily Dunlop*  
Zoology  
A Comparison of Welfare Considerations among Captive Animals  
Adviser: Jessica Bolker

Ryan Dussault*  
Biomedical Science  
Synthesis of a Hexadentate Chelator Linker for Attachment to a Mitochondria-Seeking Peptide  
Adviser: Roy Planalp

Anika Frink  
Zoology  
Impacts of Inappropriate Human Possession of Wildlife on the Animal’s Well-Being  
Adviser: Janet Anderson

Jessica Hodgkins*  
Biomedical Science  
Identification of the Virulence Factors of Serratia sp. SCBI  
Adviser: Louis Tisa

Troy LaPolice*  
Biology  
The Effect of Transcriptome Assembly Quality on Phylogenetic Relationships  
Adviser: Matthew MacManes

Yuri Makar*  
David Walker*  
Biomedical Science  
Identification of STAT3 Target Genes that Promote Ovarian Cancer Metastasis  
Adviser: Sarah Walker

Johanna Pastoriza*  
Neuroscience and Behavior  
Computational and Synthetic Exploration of Radiometal Chelators for Nuclear Imaging Applications  
Adviser: Roy Planalp

Ryan Puterbaugh*  
Biochemistry, Molecular and Cellular Biology  
Effects of Mutation on Structure and Binding of the Intrinsically Disordered Protein PopZ  
Adviser: Krisztina Varga

**Computer Science**

Group Leaders: David Benedetto, Matthew Plumlee

Vitali Baranov*  
Samuel Hemond*  
Bing Yi Liu*  
Computer Science  
User Physical Activity Identification  
Adviser: Jonathan Andree

Antonio Barboza*  
Tyler Currier*  
Brandon Rose*  
Computer Science  
Brandon Cammett*  
Ke Chen*  
Dane Hoover*  
Information Technology  
Strafford County Payroll System  
Advisers: David Benedetto, Tracy Hayes, Matthew Plumlee

Parker Berberian*  
Nicholas Kahn*  
Gregory Wojtas*  
Computer Science  
Industrial Application of Time-Sensitive Networking  
Adviser: Bob Noseworthy

Mallorie Biron*  
Sarah Hall*  
Mitchell Hersey*  
Computer Science  
Quantifying DNA-Protein Matches  
Advisers: David Benedetto, Anthony Westbrook

Chaitanya Bista*  
Brian Landolt*  
Anthony Rocchio*  
Information Technology  
The Living Bridge Project: Database and Data Visualization Study  
Advisers: Erin Bell, Martin Wosnik

David Bitman*  
William Clark*  
Maxwell Sullivan*  
Johnson Trinh*  
Information Technology  
Development of a Collaborative Environment for a New Hampshire Agency  
Adviser: Scott Valcourt

Nicholas Boyd*  
Jacob Hawkins*  
Thomas Yang*  
Computer Science  
Augmented Reality Telehealth Demonstration Application  
Adviser: Scott Valcourt
Benjamin Chamberlain*
Shane Chinburg*
Robert Chisholm*
Computer Science
Preemptive Involvement and Tracking by Teachers (PITT)
Advisers: David Benedetto, Daniel Shepard

Honey Choksi*
Nicholas Dessanti*
Irene Robb
Information Technology

Dillon Dow*
Computer Science
NextStep HealthTech App Development
Adviser: David Benedetto

Cameron Claiborne*
Computer Science
Jake Cooper
Davis Osarczuk
Information Technology
Liberty Mutual Image Analytics
Adviser: David Benedetto

Maximiliano DelRio*
Benjamin Patton*
Information Technology

Dylan Wheeler*
Information Technology, Philosophy
REDSWARMS: Cyber Security Training System
Adviser: David Benedetto

Hannah Dukeman*
Noah Perron*
Taylor Roy*
Information Technology

Christopher Schwartz*
Computer Science
Seabed 2030 Affiliate Project
Adviser: Matthew Plumlee

Benjamin Gildersleeve*
Analytics and Data Science

Haiyao Ni*
Computer Science, Management

Andrew Porter*
Computer Science
Data Science for Storm Events
Adviser: Laura Dietz

Joshua Guarnieri*
Computer Science
Nicholas Harrigan*
Joshua Mawuntu*
Taylor Merrifield*
Marko Novcic*
Information Technology
Automated Attendance
Adviser: Scott Valcourt

Sarah Hall
Computer Science
Building a Better Symptom Checker
Adviser: Laura Dietz

Jack Hamilton*
Matthew Hartman*
Jeffrey Johansen*
Computer Science
Barrett Morse*
Information Technology
Cloud-Native Streamline Computation
Adviser: Matthew Plumlee

Ryan Lefebvre*
Computer Science
Estimating Energy Expenditure with Machine Learning
Adviser: Radim Bartos

Noah Levin*
Efras Soputan*
Information Technology

Francesco Alessandro Mikulis-Borsoi*
Computer Science
Landing Throttleable Hybrid Rockets with Reinforcement Learning in a 3D Simulated Environment
Adviser: Marek Petrik

Adam Moynihan*
Ryan Stuart*
Information Technology
Partly Cloudy
Advisers: David Benedetto, Martin Ledoux

Leah Rubinstein*
Ivan Tran*
Information Technology
The Living Bridge Project:
Website Usability
Advisers: Erin Bell, David Benedetto

Earth Sciences

Group Leader: Thomas Lippmann

Cynthia Bova*
Environmental Sciences
The Effect of a Land-Use Gradient and Sediment Characteristics on Methane Ebullition in Four Headwater Streams
Advisers: Andrew Robison, Ruth Varner, Wilfred Wollheim

Mackenzie Boyle
Environmental Conservation and Sustainability

Quinton Hill
Earth Sciences
Relationships between Soil Chemistry and Particle Size in the Great Bay Estuary, NH
Advisers: Julia Bryce, Thomas Lippmann

Diane DeVries*
Environmental Sciences
Comparison of Methane and Nitrous Oxide Emissions along a Nitrate Gradient in the Ipswich River, Massachusetts
Adviser: Ruth Varner

Brendan Garvey*
Earth Sciences
Reconstruction of the Terceira Magma Plumbung System
Adviser: Julia Bryce

Peter Haber*
Earth Sciences
Using Magnetostratigraphy to Find the Cretaceous-Paleogene Boundary in La Colonia Formation, Patagonia, Argentina
Adviser: William Clyde

Peter Kondek
Grant Magee
Environmental Sciences
Chemical Proxies of Oyster Shells in Great Bay
Advisers: Julia Bryce, Maria Fahnestock

Bonnie Turek*
Environmental Conservation and Sustainability
Assessing Topographic Mapping Accuracy
Using Aerial Drone with Terrestrial and Submerged Aquatic Ground Control Points
Adviser: Kevin Gardner
**Electrical & Computer Engineering**

**Group Leader: Wayne Smith**

**Russell Anderson***
Electrical Engineering  
Radio Frequency Amplifier for Cellular Signal Application  
Adviser: Michael Carter

**Jacob Baker***
Computer Engineering  
UNH-IOL Automated Interoperability Board (Firmware)  
Adviser: Qiaoyan Yu

**Thor Bartlett***  
**Patrick Chang***  
**Kai Chatfield-Kinjo***
Electrical Engineering  
Appledore Island Power Grid  
Adviser: Michael Carter

**Matthew Beliveau***
Electrical Engineering  
IOT - RFID Security  
Adviser: Qiaoyan Yu

**Trevor Blampied***  
**Megan Johnson***  
**Thomas Pham***
Electrical Engineering  
Hybrid Engine Rocket Ignition and Control  
Adviser: Michael Carter

**Darien Blow***  
**Christopher Flannery***
Electrical Engineering  
M4 Automatic Targeting and Stabilization System  
Advisers: Richard Messner, Se Young Yoon

**Spencer Couture**
Computer Science

**Elijah Missildine***  
**Timothy Ryan***
Electrical Engineering  
Automated Foosball Table  
Adviser: Richard Messner

**Ioan Diaconu***  
**Mariem Hassan***  
**Samantha Perez***
Electrical Engineering

**Ryan Reynolds***
Computer Engineering  
UNH ECE LunaCats  
Advisers: John LaCourse, MD Shaad Mahmud, May-Win Thein

**Ryan Dunn**
Electrical Engineering Technology  
Current Sensor Bandwidth Tester System Upgrade  
Adviser: Christopher LeBlanc

**Olivia Edson***  
**Nha Huynh***
Electrical Engineering  
Fangzhou Xu**
Computer Engineering  
ET Nav Swarm  
Advisers: Michael Carter, MD Shaad Mahmud, May-Win Thein

**Gaddi Fils Aime***  
**Alvin Lagu***
Electrical Engineering  
Improving Autonomous Mapping Algorithms  
Adviser: Se Young Yoon

**Christopher Foster***
Electrical Engineering, Philosophy

**Catherine Sullivan***
Electrical Engineering  
UNH Tidal Energy Cats (TEC): Tidal Energy Conversion Co-Located with Estuarine Bridges for Coastal Infrastructure Resiliency Electrical Research and Design Team  
Advisers: Erin Bell, Michael Carter, Martin Wosnik

**Alexander Girard***  
**Lane Krug***
Electrical Engineering  
Development of a Next Generation Laser Range Finder  
Advisers: Amy Keesee, Wayne Smith

**Perry Hayes***  
**Madelyn Widger***
Electrical Engineering  
Proof of Concept of Polyimide Film Flexible Antennas  
Adviser: Nicholas Kirsch

**Jonathan LaFrance**
Electrical Engineering  
UNH-IOL Automated Interoperability Board (Hardware)  
Adviser: Nicholas Kirsch

**Ashnav Lal***
Computer Engineering  
How to Make Data Centers Cooler and Reduce the Thermal Heat  
Adviser: Kent Chamberlin

**Kaitlyn Laliberte***  
**Stephanie Lo***
Electrical Engineering  
Developing a Communications Platform Using Software-Defined Radio  
Advisers: Nicholas Kirsch, May-Win Thein

**Jessica Lemere**
Computer Science  
Automation of Ethernet Interoperability  
Adviser: Matthew Plumlee

**Benjamin Letourneau***
Electrical Engineering  
Hybrid Rocket Engine Flow Regulation Control  
Adviser: Kent Chamberlin
Ryan Morrison*
Electrical Engineering
Radio Frequency Direction Finding Using Ship-to-Ship Communication
Adviser: Kent Chamberlin

Andrew O’Neil
Information Technology

Ronald Rees*
Computer Engineering
Tutoring App
Adviser: Richard Messner

Devanshu Prasad*
Electrical Engineering
Wearable Ring Sensor for Continuous Measurement of Heart Beat
Adviser: MD Shaad Mahmud

Joshua Rush*
Computer Engineering
Validating the OCP NIC 3.0 PCIe Bifurcation Mechanism
Adviser: Qiaoyan Yu

Nicolas Sevilla Connelly*
Electrical Engineering
Environmental Control of a Single-Plant Growth Chamber
Adviser: Michael Carter

* Denotes students who presented at the virtual URC

### Innovation Scholars

**Group Leader:** Timothy Carlin

Phoebe Adame*
Environmental Engineering
Elena Chan*
Mechanical Engineering
Jordan Labossiere*
Chemical Engineering
Levitation and Its Practical Applications
Adviser: Michael Locke

Hassan Al-Jewad*
Eric Smith*
Electrical Engineering
Nathanael Frisch*
Computer Engineering
Bryan McKenney*
Computer Science
Responsive Feedback with a Robotic Arm
Adviser: Jeffrey Lapak

Kendall Boniecki*
Luke Conroy*
Annie Duong*
Ian Lindberg*
Joseph Prescott*
Mechanical Engineering
Lucas Guerrette*
Computer Science
Developing a Low-Cost Thermal Actuator for Space Applications
Adviser: Michael Locke

Ian Bresnahan*
Chemistry, Mathematics
Alice Wade*
Mechanical Engineering
Water Electrolysis
Adviser: Young Jo Kim

Benjamin Brockway*
Matthew Eaton*
Mechanical Engineering
Benjamin Hodsdon*
Civil Engineering
Sunjay Sood*
Environmental Engineering
Drifting Along: Freshwater Drifter and Salinity Reader
Adviser: Josh Humberston

Charles Clark*
Thomas Oliver*
Mechanical Engineering
Emilie Leavitt*
Computer Engineering
Kathleen Terwilliger*
Computer Science
CoBots: Machine Learning
Adviser: Michael Locke

Riley Drew*
Nathaniel McCarvill*
Mechanical Engineering
James Wirth*
Engineering Physics
Olson Center Giveaway
Adviser: Michael Locke

Eli Duggan*
Undeclared
Samuel Mercer*
Chemical Engineering
Tinh Phuong*
Applied Mathematics
OriAnne Sinclair*
Computer Science
Distributed Data Processing System for Arduino-Compatible Devices
Adviser: Timothy Carlin

Margaret Enderle*
Ocean Engineering
Design of Instrumentation Port for UNH Oscillating Flume
Adviser: Savannah Devoe

Matthew Furletti*
Ocean Engineering
Emma Tobbe*
Bioengineering
Building a CTD to Correct Refraction Errors in Sonar Mapping
Adviser: Val Schmidt

Anna Gombas*
Isabel Medeiros*
Civil Engineering
Garrett Mallard*
Environmental Engineering
Katherine Metzger*
Chemical Engineering
Surging Water in Durham: Measuring Springtime Water Level Changes in the Oyster River Watershed
Advisers: Anne Lightbody, Angela Sarni

Jeremy Larkin*
Madeline Strange*
Environmental Engineering
Matthew Libby*
Chemical Engineering
Sarah Young*
Bioengineering
Using a Tethered Balloon to Measure Air Quality and Atmospheric Structure in Urban and Rural New Hampshire
Advisers: Allison Bickford, Anne Lightbody, Charles Smith

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### Wednesday 4/22

- **Ryan Morrison**: Electrical Engineering
  - Radio Frequency Direction Finding Using Ship-to-Ship Communication
  - Adviser: Kent Chamberlin

- **Andrew O’Neil**: Information Technology

- **Ronald Rees**: Computer Engineering
  - Tutoring App
  - Adviser: Richard Messner

- **Devanshu Prasad**: Electrical Engineering
  - Wearable Ring Sensor for Continuous Measurement of Heart Beat
  - Adviser: MD Shaad Mahmud

- **Joshua Rush**: Computer Engineering
  - Validating the OCP NIC 3.0 PCIe Bifurcation Mechanism
  - Adviser: Qiaoyan Yu

- **Nicolas Sevilla Connelly**: Electrical Engineering
  - Environmental Control of a Single-Plant Growth Chamber
  - Adviser: Michael Carter

#### Innovation Scholars

**Group Leader**: Timothy Carlin

- **Phoebe Adame**: Environmental Engineering
- **Elena Chan**: Mechanical Engineering
- **Jordan Labossiere**: Chemical Engineering
  - Levitation and Its Practical Applications
  - Adviser: Michael Locke

- **Hassan Al-Jewad**: Electrical Engineering
- **Eric Smith**: Electrical Engineering
- **Nathanael Frisch**: Computer Engineering
- **Bryan McKenney**: Computer Science
  - Responsive Feedback with a Robotic Arm
  - Adviser: Jeffrey Lapak

- **Kendall Boniecki**: Electrical Engineering
  - Radio Frequency Direction Finding Using Ship-to-Ship Communication
  - Adviser: Kent Chamberlin

- **Andrew O’Neil**: Information Technology

- **Ronald Rees**: Computer Engineering
  - Tutoring App
  - Adviser: Richard Messner

- **Devanshu Prasad**: Electrical Engineering
  - Wearable Ring Sensor for Continuous Measurement of Heart Beat
  - Adviser: MD Shaad Mahmud

- **Joshua Rush**: Computer Engineering
  - Validating the OCP NIC 3.0 PCIe Bifurcation Mechanism
  - Adviser: Qiaoyan Yu

- **Nicolas Sevilla Connelly**: Electrical Engineering
  - Environmental Control of a Single-Plant Growth Chamber
  - Adviser: Michael Carter
**Mathematics & Statistics**

Group Leader: Orly Buchbinder

Rebekah Alpert*
Statistics

Julissa Freund*
Aaron Kearnan*
Catherine Murphy*
Environmental Engineering

Oil Snare
Adviser: Nancy Kinner

Molly Boodey*
Mathematics

An Examination of Fibonacci Numbers across Various Mathematical Disciplines
Adviser: Edward Hinson

Alyson Caruso*
Statistics

Patient Decisions Regarding Cancer Gene Panel Testing: An Exploratory Study
Advisers: Michelle Capozzoli, Margaret Emmet, Kristen Mahoney Shannon

**Mechanical Engineering—Competition**

Group Leaders: Alireza Ebad, Ivaylo Nedyalkov

Matthew Adams
Kyle Adrien
Jacob Downing
Kyle Faucher
Joshua Furgeson
Timothy Johnston
William Maniatis

Mechanical Engineering

UNH Precision Racing: Formula SAE
Collegiate Design Series
Adviser: Todd Gross

Tyler Aversano
Anthony Bedard
Ryan Deschenes
Oliver Fetter
Joshua Gomes
Tanner Hyslop
Samuel Koskela
Cody Letendre
Davis Storey

Tyler Aversano
Anthony Bedard
Ryan Deschenes
Oliver Fetter
Joshua Gomes
Tanner Hyslop
Samuel Koskela
Cody Letendre

Liam Taylor
Jacob Weiss

Mechanical Engineering

UNH SAE Baja
Adviser: Todd Gross

Carly Benik
Nathan Gunter
Silas Johnson
Charlie Nitschelm
Darren Otten
Zachary Raboin
Lucas Simmonds

Mechanical Engineering

Thomas Collins*

Engineering Physics

Jacob Harrison

Computer Engineering

UNH SEDS Undergraduate Hybrid Rocketry Project
Adviser: Todd Gross

Cody Best*

Debarpan Bhowmick*

Courtney Conway*

Mechanical Engineering

ET-NAVSWAR

Adviser: May-Win Thein

Tyler Blish*

Andrew Masters*

Brian McNally*

Zachary Shelby*

Austin Snell*

Mechanical Engineering

Jason Bortolussi*

Computer Engineering

Ryan Contois*

Luke McIntire*

Justin Moore*

Timothy Strauss*

Computer Science

Thomas Hall*

Engineering Physics

Kaitlyn Laliberte*

Stephanie Lo*

Electrical Engineering

QuadSat Swarm
Adviser: May-Win Thein

Xuchu Chen

Mechanical Engineering Technology

Evan Conners

Matthew Desilets

David Temeng

Jacob Verneris

Yujing Zhang

Mechanical Engineering

UNH Aerocats
Adviser: Alireza Ebad

Michael Cote*

Andres Giraldo*

Nicholas Matte

Nhut Nguyen*

Samuel Vitale*

Mechanical Engineering

Ioan Diaconu*

Mariem Hassan*

Samantha Perez*

Electrical Engineering

Ziyu Liu*

Ryan Reynolds*

Computer Engineering

Catherine Sandstrom*

Rui Sun*

Noah Vogler*

Shiqian Xi*

Mechanical Engineering

UNH SEDS Undergraduate Hybrid Rocketry Project

Adviser: Todd Gross

Cody Best*

Debarpan Bhowmick*

Courtney Conway*

Mechanical Engineering

ET-NAVSWAR

Adviser: May-Win Thein

Tyler Blish*

Andrew Masters*

Brian McNally*

Zachary Shelby*

Austin Snell*

Mechanical Engineering

Jason Bortolussi*

Computer Engineering

Ryan Contois*

Luke McIntire*

Justin Moore*

Timothy Strauss*

Computer Science

Thomas Hall*

Engineering Physics

Kaitlyn Laliberte*

Stephanie Lo*

Electrical Engineering

QuadSat Swarm
Adviser: May-Win Thein

**Mechanical Engineering—Design/Research**

Group Leaders: Alireza Ebad, Ivaylo Nedyalkov

Jonathon Amrein*

Mechanical Engineering

Jessie Greenhalgh*

Engineering Physics

Joseph Lazzaro*

Electrical Engineering

Development of a Rogowski Coil to Measure Auroral Currents
Advisers: Matthew Argall, Wayne Smith

Roger Balcom*

Joseph Crotty*

Nicholas Muise*

Ziran Xu*

Mechanical Engineering

Virtual Reality in a Manufacturing Setting
Adviser: Brad Kinsey
William Bodewes  
Nathan Dablain  
Mechanical Engineering  
One-Handed Bicycle Pump  
Adviser: Todd Gross  

Kelsey Buck*  
Kirk Kaunang*  
Thomas Kilgore*  
Christian Langendoen-Hannabury*  
Andrew Leclair*  
Michelle Paradise*  
Mechanical Engineering  
UNH First Responder Training Tools  
Adviser: Anthony Puntin  

Isaiah De Leon*  
Rautha Jones*  
Mechanical Engineering  
Power-Assisted Hand Cycle  
Adviser: Ivaylo Nedyalkov  

Sean Donohue*  
Daniel Dorci*  
Mykola Matukhno*  
Mechanical Engineering  
Racket Sports with a Humanoid Robot  
Advisers: Momotaz Begum, Paul Gesel, Igor Tsukrov  

Michael Hastings*  
Hunter Miller*  
Mechanical Engineering  
Reach High: Modular Volleyball Exercise Equipment  
Adviser: Ivaylo Nedyalkov  

Francesco Lapitino  
Mechanical Engineering  
Multi-Material Clay 3D Printing  
Adviser: Nikhil Padhye  

Curtis Linton*  
Mechanical Engineering  
Developing a Device to Countermeasure the Negative Effects of Microgravity on the Body  
Adviser: May-Win Thein  

Andrew Masters*  
Mechanical Engineering  
Model Predictive Position Control of a Quadrotor UAV  
Adviser: May-Win Thein  

**Denotes students who presented at the virtual URC**

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**Mechanical Engineering—Industry**

**Group Leaders: Alireza Ebadi, Ivaylo Nedyalkov**

Tyler Albano  
Marshall Halpin  
Mechanical Engineering  
Truck Bridge Collision Prevention System  
Adviser: Todd Gross  

Azhar Ali*  
Roffiel Farhat*  
Mechanical Engineering  
Auto-Change Unit for Plasma Cutting  
Adviser: Brad Kinsey  

Derick Boisvert*  
Daniel Coburn*  
Mechanical Engineering  
Pratt and Whitney Grinding Cell Automation  
Adviser: James Weishheit  

Devon Bryson*  
Matthew Reggio*  
Meghan Stickney*  
Zachary Wright*  
Mechanical Engineering  
Automated Mixing System to Create Syntactic Foam for Durham Boat Company  
Adviser: Todd Gross  

Travis Drewing*  
Colby LaChance*  
Jacob Mancini*  
Jeffrey Street*  
Mechanical Engineering  
Mobile IV Manufacturing  
Advisers: Glenn Shwaery, Christopher White  

Christen Gallant*  
Mechanical Engineering  
Cyclotron Particle Accelerator Electrode Cooling Test  
Adviser: Ivaylo Nedyalkov  

Haocheng Han*  
Qiwei Wang*  
Mechanical Engineering  
Automated Transportation Robots Designed for Industrial Machine  
Adviser: Brad Kinsey  

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**Ocean Engineering**

**Group Leader: Thomas Weber**

Megan Barrett*  
Cory Barrett*  
Timothy Kammerer*  
Yongjin Lu*  
Computer Engineering  
Autonomous Surface Vehicle (ASV)  
Advisers: Michael Carter, May-Win Thein  

Megan Barrett*  
Cory Barrett*  
Timothy Kammerer*  
Yongjin Lu*  
Computer Engineering  
Travis Calley*  
Matthew Lemire*  
Computer Science  
Meghan Cincotta*  
Shane Harvey  
David Miner*  
John Ross*  
Kristen Simoneau*  
Mechanical Engineering  
Ian Lander*  
Ocean Engineering  
Autonomous Surface Vehicle (ASV)  
Advisers: Yuri Rzhanov, May-Win Thein  

Jacob Bradshaw  
Travis Hall  
Sarah Zecha  
Mechanical Engineering  
Model Wind Turbine  
Adviser: Martin Wosnik  

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Todd Melanson  
Mechanical Engineering  
Centrifugal Compressor Analysis and Design  
Adviser: Ivaylo Nedyalkov  

Joseph Williams*  
Mechanical Engineering  
Rotator Cuff Exercise Machine  
Adviser: Ivaylo Nedyalkov
Travis Calley*
Matthew Lemire*
Computer Science
Timothy Holt*
Kevin Johnson*
Logan Yotnakparian*
Mechanical Engineering
Remotely Operated Vehicle (ROV)
Advisers: Yuri Rzhanov, May-Win Thein

Cameron Carbone
Austin Hall
James Kelley
Brandon Mello
Amelia Smith
Mechanical Engineering
Lauren Ritter
Mechanical Engineering, Sustainability
UNH Tidal Energy Cats (TEC): Tidal Energy Conservation Co-Located with Estuarine Bridges for Coastal Infrastructure Resiliency
Advisers: Erin Bell, Michael Carter, Martin Wosnik

Olivia Dube
Kate O’Donnell
Ocean Engineering
Nourishment-Driven Drone Survey and Volumetric Analysis of Seabrook Beach
Advisers: Diane Foster, Larry Ward

Stephen Ell
William Leibundgut
Maxwell Ulrich
Ocean Engineering
Adrienne Harris
Savannah Passaretti-Fina
Kyle Sanders
Mechanical Engineering
Wave-Powered Water Pump
Advisers: Aaron Russell, M Swift

Corina Gudinas
Ocean Engineering
Harrison Sneck
Mechanical Engineering
Portable Sensors for Observing the Response of Underwater Piles to Waves and Tides
Adviser: Diane Foster

**Physics & Astronomy**

Group Leader: Ningyu Liu

Tristan Anderson*
Physics
Dynamic Nuclear Polarization and Nuclear Magnetic Resonance with Applications in Medical Physics
Adviser: Karl Slifer

LiHy Buchbinder
Physics
Electrochemical Etching of Atomically Sharp Scanning Tunneling Microscope (STM) Tips
Adviser: Shawna Hollen

Landon Buell*
Physics
Examining Attacks on Neural Networks
Adviser: Qiaoyan Yu

Ben Campbell*
Physics, Mathematics
Machine Learning in the String Landscape
Adviser: Per Berglund

Audrey Coleman*
Physics
Obtaining the GBM Untargeted Search Confirmation Rate of GRBs
Adviser: Mark McConnell

Reed Dannar*
Cameron Lamarre
Robert Wells
Engineering Physics
UNH CubeSat
Adviser: Amy Keesee

Payson Dunn*
Physics, Classics
Development of Ion Optics for a Spaceflight Ion Mass Spectrograph
Adviser: James Clemmons

Andrew Griglun*
Engineering Physics
Curved Microchannel Plates for Time-of-Flight Mass Spectrometers
Adviser: Harald Kucharek

Isabella Householder*
Physics
Observations of Van Allen Radiation Belt Electron Precipitation during Satellite Conjunctions of FIREBIRD-II and POES
Adviser: Katharine Duderstadt

Savannah Labounty*
Engineering Physics
Designing a Gamma Ray Collimator
Adviser: Fabian Kislat

Asher Merrill*
Physics
Searching for the E-3/2 Suprathermal Ion Tail with Parker Solar Probe’s ISIS Instrument
Advisers: Jonathan Niehof, Nathan Schwadron

Max Miller*
Physics
Estimating Errors from Extrapolating Finite-Radii Gravitational Wave Merger Simulations to Infinite Radii
Adviser: Francois Foucart

Timothy Raeder*
Physics
MCX Upper Function and Proofing Fixture for Sig Sauer
Adviser: Marc Lessard

Nathan Richard*
Physics
Automated Classification of Narrow Bipolar Pulses
Adviser: Ningyu Liu

Nicholas Richards
Physics
IBEX-Lo Energy Response to Interstellar H Wind
Advisers: Eberhard Moebius, Fatemeh Rahmainfar

Morgan Saidel*
Physics
Exploring Earth-Analog Atmospheres with the James Webb Space Telescope
Adviser: Mark McConnell

Tornike Shubitidze*
Physics
Simulating Radio Images of Lightning Events
Adviser: Ningyu Liu
Phiona Vall*
Physics
*The Effect of the Stellar Wind on X-ray Polarization in High Mass Binary Systems
Adviser: Fabian Kislat

Ryan Williams*
Physics
*Decreasing Uncertainty in Nuclear Magnetic Resonance Measurements through the Application of Pappus Chains
Adviser: Elena Long

The Naked Arts—Creativity Exposed!

Act I

Wednesday, April 22
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.

Rachel Bergeron*
Fine Arts
*Creative Process of Spring Awakening
Advisers: Szu-Feng Chen, David Richman

Kristina Czoschke*
Fine Arts
*Narrative through Time
Adviser: Sachiko Akiyama

Alison Hoey*
Art: Art History, Fine Arts
*Figurative Painting: Exploration and Discovery
Adviser: Sachiko Akiyama

Howard Lewis*
English
*The Falstaff: An American Epic
Adviser: Thomas Payne

Madison Madore*
Fine Arts
*Cyanotype in Motion
Adviser: Sachiko Akiyama

UNH Manchester Undergraduate Research Conference

Poster Presentations

Wednesday, April 22
The UNHM 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.

Maryam Abdi*
Politics and Society
*Children and Poverty
Adviser: Stephen Pimpare

Maryam Ahmad*
Biological Sciences, Neuropsychology
*Synapse: Bridging the Gap between Music and Technology
Adviser: Aubrie Dionne

Rachel Anastasi
Thomas Gerton
Biotechnology
*Bacteriophage SilentRX-Brother Genome Annotation
Adviser: Kyle Mac Lea

Michelle Crowley
Biology
*Food Microbiology of Iceland
Adviser: Kyle Mac Lea

Maxx Anderson*
David Merchant*
Roy Velez*
Homeland Security
Zachery Pelletier*
Homeland Security, Justice Studies
Chinburg Properties Inc: The Cocheco Mills Risk Assessment
Adviser: James Ramsay

Monique Archambault*
Emily Reed
Neuropsychology
*Service-Learning at Birch Hill Terrace
Adviser: Alison Paglia

Rachel Avery*
English, History
*Silence and Memorialization: Erasure of Individuals Subjected to Persecution for Homosexuality during the Holocaust
Adviser: Kristen Woytonik

Bernard Brown*
Computer Science and Entrepreneurship
*Python Business Analyzer
Adviser: Hong Jin

Tina Byrd*
Biotechnology
*Investigation of the Circadian Rhythms of Life in Polar Regions
Adviser: Kyle Mac Lea

Vanessa Cleary*
Psychology
*Assessment of Perspectives on the Current Mental Health Field
Adviser: Nicholas Mian

Dylan Conroy
Joshua Reynolds
Biotechnology
*Deconvolution of Brother-of-SilentRX and Other Genome Fragments
Adviser: Kyle Mac Lea
Jacob DiGiovanni*  
Ethan Faxon*  
Benjamin Pinard*  
Marie Rouleau*  
Homeland Security  
Live and Let Live Farm and Sanctuary  
Capstone Project  
Adviser: James Ramsay

Erin Docko*  
Biological Sciences  
Cardiothoracic Surgical Shadow  
Adviser: Suzanne Cooke

James Driscoll*  
Jaime Ellerman*  
Chantal Jennings*  
Homeland Security  
School Administrative Unit (SAU) 8  
Emergency Operations Analysis and Threat Assessment  
Adviser: James Ramsay

Kelsie Duggan*  
Biotechnology  
RNA Knockdown of Circadian Rhythm Gene ARNTL2 Effects in Pancreatic Cancer Cells  
Adviser: Kristen Johnson

Ethan Edwards  
Isabelle Laizure  
Biotechnology  
Genome Annotation of Bacteriophage: SilentRX  
Adviser: Kyle Mac Lea

Ashlyn Farwell*  
Biology  
Genome Sequencing of Halococcus dombrowskii  
Adviser: Kyle Mac Lea

Eugenia Fedorov*  
Medina Omeragic*  
Kristina Shalygina  
Biological Sciences  
Genome Sequencing of Kibdelosporangium philippine, Saccharolobus shibatae, and Cellulomonas hominis  
Adviser: Kyle Mac Lea

Justin Feenstra*  
Michael Gray*  
Nicholas Tiso*  
Homeland Security  
Town of Newfields Emergency Operation Plan Recommendations and Threat Assessment  
Adviser: James Ramsay

Ethan Ferraiuolo*  
Biotechnology  
CRISPR-Cas9 Knock-In: Endogenous Tagging of the FOXN2 Gene Locus in Pancreatic Cancer Cells  
Adviser: Kristen Johnson

Christopher Fifty*  
Tommy Huynh*  
Kaylie Knowlton*  
Vishnu Soni*  
Neuropsychology  
Adviser: John Sparrow

Heather Finnigan*  
Biological Sciences  
A Day in the Shoes of an Emergency Room Physician  
Adviser: Suzanne Cooke

Maryssa Flynn*  
Biological Sciences  
Culture Characterization as a Tissue Engineering Intern  
Adviser: Stephen Pugh

Kyle Foden*  
Politics and Society  
Community Rights Movements in New Hampshire  
Adviser: Stephen Pimpare

Lillian Frechette  
Biological Sciences  
Aging Adults Living in Nursing Homes  
Adviser: Alison Paglia

Jordan Garron  
Psychology  
Technology in Old Age  
Adviser: Alison Paglia

Kevin Hurley*  
Biological Sciences  
Identification of Novel Antibiotic Production from the Microbial Community in a Freshwater-Adjacent Sediment Sample  
Adviser: Suzanne Cooke

Tommy Huynh*  
Neuropsychology  
Do We See Eye to Eye? A Study of the Effects on the Visual Perceptual Phenomena of Binocular Rivalry and Continuous Flash Suppression on Motion-Induced Blindness  
Adviser: John Sparrow

Corey Jakway*  
Biological Sciences  
Internship at Manchester Water Works  
Adviser: Kristen Johnson

Kaylie Knowlton*  
Neuropsychology  
Is Seeing Really Believing? A Deeper Look into Motion-Induced Blindness, Continuous Flash Suppression, and Binocular Rivalry  
Adviser: John Sparrow

Christine LaPierre*  
Biological Sciences  
Let It Grow: Cultivating STEM Cognition through Community Outreach  
Advisers: Patricia Halpin, Stephen Pugh

James Larocque  
Computer Science, Information Technology  
Here’s Lookin’ at You, Kid...  
Adviser: Howard Eglowstein

Makayla Lembo  
Biological Sciences  
Comparison of Women’s Health in Iceland and in America  
Adviser: Kyle Mac Lea

Kate Lu*  
Biological Sciences  
Investigation of Downstream Targets of ARNTL2 in Human Pancreatic Cancer Cells  
Adviser: Kristen Johnson

Steven MacLeod  
Computer Science  
Voice Commands with Google AIY Voice Kit and Raspberry Pi  
Adviser: Howard Eglowstein
Johnny Marin Cedeno*
Neuropsychology
Parental Substance Use Disorder: Affect on Adolescent Behavioral and Academic Performance
Adviser: Nicholas Mian

Margaret Martin*
Biotechnology
Pharmacy Certification
Adviser: Sarah Prescott

Meriah Metzger*
Politics and Society
Nutrition Incentive Programs
Adviser: Stephen Pimpare

Dennis Miller
Biotechnology
Microbial Diversity of the White Mountains of New Hampshire
Adviser: Suzanne Cooke

Erica Ogert*
Biological Sciences
An Investigation of SARS-CoV-2 and the COVID-19 Pandemic
Adviser: Kyle Mac Lea

Sabrina Oliveira*
Biotechnology
AKT2 and ROCK2 Molecular Pathways in Pancreatic Cancer Cell Lines
Adviser: Kristen Johnson

Abbey Olsen*
Brianna Sullivan*
Biotechnology
The Effect of Geothermal Heating on Soil Microbes in Iceland
Adviser: Kyle Mac Lea

Natalie Parker*
Biological Sciences, Neuropsychology
Unwinding the Mysteries behind Brown-Sequard Syndrome
Adviser: Daniel Seichepine

Robert Patnaude*
Biotechnology
Full Genome Sequencing of Novel Bacterium Dactylosporangium fulvum
Adviser: Kyle Mac Lea

Jamila Peguero
Psychology
Golden Brook Elementary School Case Study Report
Adviser: Nicholas Mian

Christopher Puzzo
Computer Science
An Escape Room House Built out of a Dollhouse
Adviser: Howard Eglowstein

Amir Rahimov*
Computer Information Systems
Smart Trashcan
Adviser: Howard Eglowstein

Nicole Reed
Neuropsychology
Effects of Multiple Concussive and Subconcussive Impacts on Driving Function under Cognitive Load
Adviser: Daniel Seichepine

Sarah Reny
Biological Sciences
The Acidity of Icelandic Water
Adviser: Kyle Mac Lea

David Reynolds*
Computer Information Systems
System Fundamentals Final Project
Adviser: Howard Eglowstein

Cody Rodriguez*
Computer Science and Entrepreneurship Systems
Adviser: Howard Eglowstein

Sydney Rollins
Biology
Searching for Novel Antibiotic Chemical Metabolite Production in Soil Bacteria
Adviser: Suzanne Cooke

Katie Salvagno*
Biological Sciences
Exploring Nursing
Adviser: Patricia Halpin

Mamady Sankoh
Biological Sciences, Neuropsychology
Icelandic Gene That Protects Elderly from Late-Onset Alzheimer's Disease
Adviser: Kyle Mac Lea

Blanca Santibanex Ocampo*
Biotechnology
Knockdown Expression of FOXN2 in 3D Pancreatic Cancer Spheroids
Adviser: Kristen Johnson

Emily Siel
Psychology
Psychotropic Drug Use for Older Adults in Care Facilities
Adviser: Daniel Seichepine

Nicholas Spinosa
Biotechnology
Cytotoxicity of Gemcitabine on FoxN2-Deficient Pancreatic Cancer Cells
Adviser: Kristen Johnson

Alexander Tenczar*
Computer Information Systems
Computing Capstone: An Undergraduate Speech Research Group
Adviser: Michael Jonas

Alexander Tenczar*
Computer Information Systems
Mimir: A Wiki-Based Online Textbook for Programming Languages
Adviser: Michael Jonas

Raphaelle Vrana*
Biotechnology
Growth and Whole-Genome Sequencing of Okadaella gastrococcus
Adviser: Kyle Mac Lea
UNH Manchester URC
Cinema Arts Day

Thursday, April 23
The UNHM 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.

Adviser: Anthony Tenczar

Ross Damon*
Kinesiology
Riding for a Cause

Ethan Drew
Communication Arts
(ab)Normal Documentary Film Trailer

Logan Frye*
Communication Arts
Mystery Morning

Alyssa Henderson*
Communication Arts
Where Are My Keys?

Alyssa Henderson*
Communication Arts
Why Should Children Ride Horses?

Elizabeth Langfeld*
Communication Arts
Emanate

Elizabeth Langfeld*
Communication Arts
Northeastern Ballet Theatre: The Art and Discipline of Ballet

Elizabeth Langfeld*
Communication Arts
Winifred: Meet Nathan Wells

Cameron Schuyler*
Communication Arts
Little Red Right Hook - Roller Derby

Cameron Schuyler*
Communication Arts
Stray Film Short

Robert Skaff
Communication Arts
A Story with No Name

Robert Skaff
Communication Arts
Lenard the Alien and the Accidental Vegan Movement

Robert Skaff*
Communication Arts
Slippery Slopes

Robert Skaff*
Communication Arts
The Sun Rises & The Sun Sets

History Department
Undergraduate Research Conference

Thursday, April 23
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.

Civil Rights and Race
Moderator: Jason Sokol

Benjamin Bernier*
History
Black, White, and Read All Over: Tracing Journalistic Perspectives of the Civil Rights Movement
Adviser: Janet Polasky

Austin Hyatt*
History
Violence and the Black Panther Party
Adviser: Janet Polasky

Astrid Kipka
History, Political Science
I Pledge Allegiance to the Flag of the United States of AmeriKa: An Analysis of the 1920s Ku Klux Klan
Adviser: Marion Dorsey

Abigeal Wright*
History
The Resistance: Student Protest and the University of New Hampshire in May 1970
Adviser: Jason Sokol
**Colonial Relations and Their Discontents**

Moderator: Janet Polasky

Abigail Colby*
History
*Physical and Political Geography as a Protagonist of Revolution in French Colonial Vietnam*
Adviser: Janet Polasky

Daniel Frehner*
Economics, History
*Former Friends: The Franco-American Relationship 1789-1794*
Adviser: Janet Polasky

Peter Murray*
History
*At the Request of Our People: The March First Movement in Korea Under Japanese Colonial Rule*
Adviser: Yan Lu

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**The Naked Arts—Creativity Exposed!**

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**Act II**

**Thursday, April 23**

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.

Deus Boerner*
English
Stargazer
Adviser: Mekeel McBride

Sage Gould*
Fine Arts
*Identity and Representation through Creative Expression*
Adviser: Sachiko Akiyama

Kaitlyn Grant*
Art: Studio Art
*Modern Monsters: Warping Humanity*
Adviser: Liese Zahabi

Andrew Knight*
Theatre
Playwriting
Adviser: Nina Morrison

Lansing Ward*
Fine Arts
*A Study of Photographic Presentation: The Act of Looking*
Adviser: Sachiko Akiyama

Matthew Williams
Art: Studio Art, English/Journalism
*MicrobeMasterpiece*
Advisers: Cheryl Marie Andam, Julee Holcombe

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**Philosophy Department Undergraduate Research Conference**

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**Thursday, April 23**

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.

Andrew Bisbee
Economics, Philosophy
*Platonic Communism: A Comparison of the States of Marx and Plato*
Adviser: Nicholas Smith

Caroline Gibson*
Philosophy, Political Science
*An Evaluation of Punishment and the Utility Calculus*
Adviser: Nicholas Smith

Cameron Horack
Classics, Economics, Philosophy
*The Ethics of Higher Education Finance: Income Share Agreements*
Adviser: Nina Windgaetter

Ashley Larson
Neuroscience and Behavior
*Why It Is Difficult to Walk Away from the Omelas*
Adviser: Nina Windgaetter

Liliana Mangan*
Philosophy
*Value-Driven Science and Artificial Intelligence*
Adviser: Subrena Smith

Angelina Muller
Philosophy, Psychology
*Mental Illness as a Symptom of Capitalism*
Adviser: Nicholas Smith

Parker Stewart
Philosophy
*Marxism and Automation*
Adviser: Nicholas Smith
Gordon Unzen*
Justice Studies, Philosophy, Psychology
* Finding a Place for Contemporary Psychology in the Marxist Worldview
Adviser: Nicholas Smith

Clio Walsh
Philosophy
* Essentializing
Adviser: Charlotte Witt

Dylan Wheeler*
Information Technology, Philosophy
* Artificial Intelligence as a Disinformation Engine
Adviser: Nicholas Smith

Emma Wick*
Philosophy, Sustainability
* Women’s Reproductive Rights, Abortion, and Communism: A Complex Connection
Adviser: Nicholas Smith

**Anthropology at Work: A Cultural, Forensic, and Archaeological Approach**

Leena Aly
Michaela Morrill
Biomedical Science
* Caesarea Maritima: Analysis of Ancestry Utilizing Metric and Nonmetric Traits of Teeth
Adviser: Amy Michael

Jeffrey Baron
Anthropology
* A Looter’s Legacy: Lithic Analysis of an Unprovenienced Stone Tool Collection
Adviser: Meghan Howey

Emily Bethune
Anthropology, Italian Studies
* Arianna Coletti
Anthropology
* Border Connections
Adviser: Sara Withers

Emily Dolloff-Holt*
Anthropology, Spanish
* Kailey Parker*
Anthropology
* Haley Rinfret
Anthropology
* Biases in Murder Investigations
Adviser: Amy Michael

Sarah Marie Jarrar*
Anthropology, History
* The Gift That Keeps Giving: Investment of Conservative Forces in Renewable Energy Technology
Adviser: Robin Sheriff

Shannon McKelvey
Audrey Waterman
Anthropology
* Victoria Slight
Anthropology, Justice Studies
* Caesarea Maritima Biological Profiles
Adviser: Amy Michael

**Defending the Homeland: Military and Economic Security**

Adviser: Lawrence Reardon

Devin Ciampi
Political Science
* For Eternity: China’s Support for the North Korean Terrorist Regime

Kevin Condict
Political Science
* Why States Lease Overseas Territory

Abrita Kuthumi
International Affairs, Political Science
* Ball’s in Your Court: Japan, South Korea, and the Liancourt Rocks

Lauren MacLachlan
International Affairs, Political Science
* China’s Expanding Influence in Central Asia: The Case of Kazakhstan

Yongyao Peng
International Affairs, Political Science
* Towards a Blue-Water Navy: The Development of China’s Navy

Tiivo Ruutopold
Political Science
* The Kuril Islands: The Organization Void

**Education, Identity, and Discrimination in Europe**

Caroline Edwards
French, International Affairs, Political Science
* Comparison between Higher Education Systems in the U.S. and France
Adviser: Thomas Safford

Hannah Machado*
International Affairs, Italian Studies, Political Science
* Are Italians Happier Than Their American Counterparts?
Adviser: Thomas Safford

Joseph Margareci
International Affairs, Political Science
* To What Extent Does Racism in Italian Media Affect Public Opinion?
Adviser: Thomas Safford
Alexander McKenna*
International Business and Economics, Marketing
*An Uneven Pitch: Where Italian Soccer’s Racism Epidemic Comes from and Where It’s Headed
Adviser: Smita Lahiri

Gender and Women’s Status around the Globe

Simfora Bangasimbo*
International Affairs, Political Science
Sexual Violence and Abuse in Armed Conflicts
Adviser: Thomas Safford

Grace Goodwin
Anthropology, International Affairs
A Cross-Cultural Comparison of Women’s Movements between Spain and the U.S.
Adviser: Thomas Safford

Darby O’Neil*
International Affairs, Political Science
Constructing a Kazakh National Identity: The Role of Gender Dynamics in Kazakhstan’s Urban Landscape and Mediascape
Adviser: Smita Lahiri

Brooke Seigars*
International Affairs, Spanish
The Hidden Cost: Femicide and Free Trade in Ciudad Juárez
Adviser: Thomas Safford

Jessica Shah*
Analytical Economics, International Affairs
A Cross-Cultural Comparison of Gender Equality Policies between the United States and Norway
Adviser: Thomas Safford

Multidisciplinary Session I: From Leadership to Literature

Alayna Blodgett*
Sociology, Women’s Studies
Social Media’s Impact on Mental Health
Adviser: Rebecca Glauber

Evan England*
Sociology, Women’s Studies
Gender and Sexual Orientation Minority Healthcare: Experiences from Both Sides of the Exam Table, a Pilot Study
Adviser: Melissa Day

Julian Maduro*
English, Justice Studies
The Relationship between Multicultural Representation in Children’s Literature and Reading Practices of Young Adults
Adviser: Laura Smith

Kayla Sliz*
Psychology
More Than Just a Captain’s Band: An Investigation into the Role of Leadership for Women in Collegiate Sport
Adviser: Karen Collins

Samantha Sullivan
Spanish
La Frontera
Adviser: Lori Hopkins

Multidisciplinary Session II: Kinesiology Connections

Francis Gesel*
Kinesiology
Supplementation of a Leucine-Enriched Dairy Protein Blend: Effects on Plasma Amino Acids in Older Adults
Advisers: Dain LaRoche, Stuart Phillips, Dan Traylor

Carlton Robie*
Kinesiology, Marketing
Marketing College Football’s 150-Year Anniversary
Adviser: Zachary Scola

Jesse Smith
Kinesiology
The Relationship between Anaerobic Power, Blood Lactate Concentration, and Position in Division I Collegiate Ice Hockey Players
Adviser: Summer Cook

Multidisciplinary Session III: Topics in Psychology and Life Sciences

Shanna Argyros
Psychology

Soﬁa Lombardo
Justice Studies, Psychology
Using Adaptive Psychophysical Methods to Measure Spatial Frequency Effects in Stereacuity
Advisers: Andrew Kitt, Joseph LaBarre, John Sparrow, William Stine, Dan Swift, Erika Wells, Rebecca White

Alexis Efriamson*
Equine Studies
The Prevalence of Cryptosporidium and Giardia amongst New Hampshire Dairy Calves
Adviser: Andrew Conroy

Yuri Makar
David Walker
Biomedical Science
Identification of STAT3 Target Genes That Promote Ovarian Cancer Metastasis
Adviser: Sarah Walker

Religion and Human Rights in Asian Authoritarian Regimes

Adviser: Lawrence Reardon

Nicholas Beall
Political Science
The Growth of AI in China

Benjamin Buesser
Political Science
The Muslim Misfortune in China

Gabryella Corricelli
Justice Studies, Political Science
North Korea: Human Rights Violations and International Countries’ Influences
<table>
<thead>
<tr>
<th>Name</th>
<th>College(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonas Marrello</td>
<td>Political Science</td>
<td>Catholic and Protestant Acculturation in China</td>
</tr>
<tr>
<td>Timothy Rice*</td>
<td>Political Science, Spanish</td>
<td>Buddhism in China: The Model Religion</td>
</tr>
<tr>
<td>Elin Warwick</td>
<td>Political Science</td>
<td>Violation of Ethnic Minority Rights in Xinjiang China</td>
</tr>
</tbody>
</table>

**Selected Papers from Commentary: A Journal for Research in Communication Studies**

<table>
<thead>
<tr>
<th>Name</th>
<th>College(s)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Emma Barresi</td>
<td>Communication</td>
<td>Instagram on Paper: Journaling, Photography, and Mindfulness</td>
</tr>
<tr>
<td>Hannah Baum*</td>
<td>Communication</td>
<td>A Royal Pain: Tensions of Womanhood in Padmaavat</td>
</tr>
<tr>
<td>Rebecca Link</td>
<td>Communication</td>
<td>Revlon Analysis</td>
</tr>
<tr>
<td>Kyra Nelson*</td>
<td>Communication, Italian Studies</td>
<td>A Narrative of Antiquity: An Analysis of the Shift in Ecclesiastical-Secular Power in Late Medieval and Early Renaissance Italy</td>
</tr>
<tr>
<td>Monique Ricard</td>
<td>Communication</td>
<td>DNA Databases: Problematic on Grounds of Constitutionality, Fallibility, and as a Discriminatory Practice</td>
</tr>
</tbody>
</table>

**Sexual Violence Prevention and Response: The Role of Prevention Innovations Research Center Interns**

<table>
<thead>
<tr>
<th>Name</th>
<th>College(s)</th>
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</thead>
<tbody>
<tr>
<td>Julia Bobeck</td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Emma Bonacci</td>
<td>Art: Studio Art, Women's Studies</td>
<td></td>
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<tr>
<td>Allison Cross</td>
<td>Justice Studies, Psychology</td>
<td></td>
</tr>
<tr>
<td>Tony Nguyen</td>
<td>Communication, Psychology</td>
<td></td>
</tr>
<tr>
<td>Mari Tarantino</td>
<td>Human Development and Family Studies</td>
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</tbody>
</table>

**Shifting Trends in Politics, Migration, and Education**

<table>
<thead>
<tr>
<th>Name</th>
<th>College(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noah Burn</td>
<td>Political Science</td>
<td>An Evaluation and Assessment on Whether English or a Desired Native Language is Most Effective for Elementary-Aged South African Students to Be Taught in</td>
</tr>
<tr>
<td>Kimberly Gravlin*</td>
<td>Political Science</td>
<td>The Partisan Impact of Hispanic Migration</td>
</tr>
<tr>
<td>Tyler Vareski</td>
<td>Justice Studies, Political Science</td>
<td>Trends in World Politics: The Rise of the Multipolar World</td>
</tr>
<tr>
<td>Sarah Wydra</td>
<td>Justice Studies, Political Science</td>
<td>The Effects of Crime, Corruption, and Climate Change on Gendered Migration from Central America's Northern Triangle</td>
</tr>
</tbody>
</table>

**Social and Political Change in China**

<table>
<thead>
<tr>
<th>Name</th>
<th>College(s)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Olivia Bernier</td>
<td>International Affairs, Political Science</td>
<td>The Human Cost of China's Struggle for Sovereignty: Xinjiang and Tibet</td>
</tr>
<tr>
<td>Gwenyth Fifield</td>
<td>Genetics, International Affairs</td>
<td>Coronavirus: Were We Prepared or Not?</td>
</tr>
<tr>
<td>Jordan Hairme*</td>
<td>English/Journalism, International Affairs</td>
<td>Chinese Philo-Semitism: Why China Admires the Jewish People</td>
</tr>
<tr>
<td>Cenyue Wang</td>
<td>Communication, International Affairs</td>
<td>China's Basic Education System and the Worsening Problem of Inequality</td>
</tr>
</tbody>
</table>
Ruichan Zhang
Communication, International Affairs
The Social Origins of SARS and Wuhan Coronavirus: A Case Study of Chinese Eating Culture
Adviser: Thomas Safford

Social and Political Change in Europe and Asia

Stephannie Adorno-Martinez
International Affairs, Management, Psychology
Social Pressures and Mental Health in South Korea
Adviser: Thomas Safford

Alyssa Dean
Italian Studies
Hydropower Dams in Laos: The Pros and Cons of Energy Development
Adviser: Smita Lahiri

Cailee Griffin*
International Affairs, Political Science
Nation in Suspension: Could Seeking EU Membership Be Bosnia’s Road Map — or Its Ruin?
Adviser: Smita Lahiri

Rushali Kapoor
French, International Affairs
India: A Beacon of Democracy
Adviser: Thomas Safford

Cynthia Liu
International Affairs, Political Science
K-Pop Idols as Products: The Dark Side of South Korea’s Entertainment Industry
Adviser: Smita Lahiri

Morgan Chabot*
Communication Sciences and Disorders
How Does Listener Familiarity with a Story Affect the Content Storytellers Include?
Adviser: Kathryn Greenslade

William Chiang
Political Science
Anti-Corruption Practices in the Form of Anti-Doping Measures in the MLB, NFL, and FIFA
Adviser: Melvin Dubnick

Suzanne Courter
Nursing
Sleep Quality of Caregivers for Children with Mitochondrial Disease
Adviser: Pamela Dinapoli

Cierra Cowan*
English, Neuroscience and Behavior
Mind over Matter: Exploring How Mindset Affects Mind Wandering
Advisers: Caitlin Mills, Shelby Smith

Tan Dao
Engineering Physics
Electronic Properties in Strained and Suspended Sheet of MoS2 on Anodized Aluminum Oxide
Adviser: Shawna Hollen

Briannah DeLorme*
Tiana DiBenedetto*
Sophie Kenny*
Madeline Quigley*
Nutrition
Comparison of Relative Fat Mass Equation and Body Mass Index (BMI) in Predicting Body Composition of Male Collegiate Athletes
Adviser: Kevin Pietro

Audrey Eastman
Biomedical Science, Theatre
Alice: A Story of Drug Addiction
Advisers: Assaf Benchetrit, Gay Nardone
Faith Farnham  
**Mercedes McCoy**  
Nursing  
*Reflecting on How People Who Inject Drugs Describe Their Familial Relationships in Relation to Healthcare Experiences*  
Adviser: Kerry Nolte

Devon Fortier  
Nursing  
*Predictors of Naloxone Co-Prescription in Palliative Care Patients Receiving Opioids*  
Adviser: Kerry Nolte

Amy Frechette*  
Psychology  
*The Benefits of Service Dogs for Adults with Autism Spectrum Disorder*  
Adviser: Jan Tornick

Anika Frink  
Zoology  
*Impacts of Inappropriate Human Possession of Wildlife on the Animal’s Well-Being*  
Adviser: Janet Anderson

Tayla George  
Justice Studies, Political Science  
*The Changing Landscape of Immigration Policy in the United States*  
Adviser: Melvin Dubnick

Katherine Hunt*  
Communication Sciences and Disorders  
*Acceptance and Commitment Therapy: A Mindfulness-Based Approach for Treatment of Communication Disorders*  
Adviser: Donald Robin

Meaghahn Kalinowski  
Nursing  
*Nursing Student Experiences with Patients with Opioid Use Disorder*  
Adviser: Kerry Nolte

Daniel Kashulines*  
Nursing  
*Nurses’ Perspectives on the Effectiveness of Chest Splinting after Sternotomy Procedures*  
Adviser: Eileen Hollis

Abigail Laverriere  
**Tara Willette**  
Nutrition  
*Relationship between Perception of Diet Quality, Exercise, and Performance on Variability of Body Composition among Male College Athletes*  
Adviser: Kevin Pietro

Benjamin MacKillop  
Political Science  
*Causes of Federal Spending Preferences among Americans*  
Adviser: Dante Scala

**Danielle McGrath**  
Nursing  
*Professional Nurse-Led Unjani Clinics: Empowering the Nurse Entrepreneur as a Primary Care Provider*  
Adviser: Gene Harkless

Gabriela Misiewicz  
Bioengineering  
*Analyzing the Roles of STAT3 and STAT5 in Breast Cancer*  
Adviser: Sarah Walker

**Paxton Morley**  
**Molly O’Shea**  
Justice Studies, Psychology  
*How Mental Health Plays a Role in the Victims of Domestic Violence*  
Adviser: Ellen Cohn

**Serena Mueller**  
Communication Sciences and Disorders  
*The Role of Socio-Economic Status on the Language Output of 3-6 Year Olds during a Naturalistic Museum Study*  
Adviser: Jill Thorson

Grace O’Connell  
Political Science  
*Legalization of Marijuana*  
Adviser: Dante Scala

**Stephen Orlych**  
Chemistry  
*Singlet Fission in Polyacenes for Photovoltaic Solar Cells*  
Adviser: Craig Chapman

Vincent Pagano*  
Environmental Conservation and Sustainability  
*Determining Viability of Unmanned Aerial Systems (UAS) to Map Forest Edge Influence in New England Forest Communities*  
Adviser: Russell Congalton

Trey Patno*  
Biochemistry, Molecular and Cellular Biology  
*Does Treatment with Angiogenic Factors (VEGFA and FGF2) Increase Expression of Hypoxia-Inducible 1 alpha (HIF1a) in Bovine Steroidogenic Luteal Cells?*  
Adviser: Paul Tsang

James Peters  
Psychology  
*Understanding the Personality of a Coworker*  
Advisers: Hannah Lightcap, John Mayer

Elizabeth Preble*  
Occupational Therapy  
*Understanding the Caregiver Experience: Examining the Transition Out of the Educational System for Children with Cognitive Disabilities*  
Adviser: Sarah Smith

**Erin Robert**  
Philosophy  
*Disability Ethics and Democratic Rights: An Ethical Analysis of the 1990 Americans with Disabilities Act, as Amended*  
Adviser: Andrew Christie

Barbara Silva  
Political Science  
*America’s Feelings on a Woman Being President of the United States*  
Adviser: Dante Scala

**Anna Stockman**  
Community and Environmental Planning  
*Monetary Involvement in Politics and Interest in Environmental Issues*  
Adviser: Dante Scala

Shannon Thomas  
Finance, Marketing  
*UNH Addiction Campaign*  
Adviser: Michael Leese
Caroline Thuma*
Recreation Management and Policy
*Denotes students who presented at the virtual URC
The Economic Impact of a Youth Softball Tournament in Conway, NH
Adviser: Robert Barcelona

Jessica Tremblay*
Zoology
Assessing How the Diversity of Groups Affects the Frequency of Vigilant Displays in Birds
Adviser: Leslie Curren

Sustainability Dual Majors

Christina Delyani
Marketing, Sustainability
Theresa MacDowell
Marketing, Sustainability

Bosibori Mosongo
Analytical Economics, Sustainability
Michael Slagle
Community and Environmental Planning, Sustainability
Marketing and Promoting Sustainability Education at UNH
Adviser: Vanessa Levesque

Luke Doverspike
Marketing, Sustainability
Ariane Faro
English, Sustainability

Sawyer Hall
Environmental Engineering, Sustainability
Catherine Micinilio
Community and Environmental Planning, Sustainability

Carbon Net Zero by 2050: Approach to a More Sustainable UNH
Advisers: Vanessa Levesque, Cameron Wake

Alison Eagan
English/Journalism, Sustainability

Jordan Garrett
Geography, Sustainability

Ethan Letourneau
Finance, Sustainability

Kate Morrissey
Environmental and Resource Economics, Sustainability
Southern Maine Coastal Resilience: Natural Capital
Advisers: Vanessa Levesque, Cameron Wake

Erin Fabian
Marine, Estuarine and Freshwater Biology, Sustainability

Lauren Ritter
Mechanical Engineering, Sustainability

Lani Stevens
Analytical Economics, Sustainability
Andrea Tutuny
Political Science, Sustainability

Southern Maine Coastal Resilience: Manufactured Capital
Advisers: Vanessa Levesque, Cameron Wake

Clara Miller
Civil Engineering, Sustainability
Localized Onsite Algae Power
Advisers: Felix Devito, Vanessa Levesque

Lauren Pitkanen
Environmental Sciences, Sustainability

Hannah Purcell
Sustainability

Andrea Scarfo
Economics, Sustainability

B Corp Impact Assessment
Advisers: Vanessa Levesque, Fiona Wilson

All Colleges Undergraduate Research Symposium

Oral Presentations, Session B

Friday, April 24
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.

Anthropology at Work:
Indigenous Culture

Adviser: Svetlana Peshkova

Caitlin Burnett
Anthropology, Sustainability
Indigenous New Hampshire Rising: Stories in Regalia’s Flowers and Curls

Rebecca Holland*
Anthropology, Philosophy
A History of Traditional Palestinian Dress

Mark Marasca
Anthropology
Tribal Identity/Affiliation

Emily Olivier
Educational Studies, French Studies
Indigenous Female Power: Are We in Reverse?
Elizabeth Schwaner  
Anthropology, French  

Ruichan Zhang  
Communication, International Affairs  
TikTok: A Chinese Media Platform  
Going Global

Economics, Inequality, and Crime around the World

Evelyn Bollinger*  
English, International Affairs  
Fixing Fast Fashion: Solutions to Social and Environmental Injustice in Latin America’s Largest Counterfeit Market  
Adviser: Smita Lahiri

Noah Burn  
Political Science  
How Should South Africa Address Its Wealth Inequality Crisis? A Comparison of Major Reform Strategies  
Adviser: Smita Lahiri

Rachael Corsi  
International Affairs, Psychology  
Sicilian Mafia and Its Effect on Italian Society  
Adviser: Thomas Safford

John McGinness  
International Affairs, Spanish  
How Have Spain’s Labor Laws and Culture Led to Unemployment over the Last Few Decades?  
Adviser: Thomas Safford

Sierra Riedel  
International Affairs, International Business and Economics  
Russian Money Laundering in the United Kingdom during the 2000’s  
Adviser: Thomas Safford

Environmental Politics in Asia

Adviser: Jeannie Sowers

Darcy Drago  
Political Science  
Ocean Acidification in the Bay of Bengal

Raneen Nassar  
Political Science  
The Economic Impact of Global Warming on the United Arab Emirates

Darby O’Neil*  
International Affairs, Political Science  
China’s Use of Subsidies in the Solar Energy Industry

Devin Paquette  
Justice Studies, Political Science  
River of Trash Flows through Lebanon

Tyler Vareski  
Justice Studies, Political Science  
Ganges River Environmental Impacts

Honors Papers in Communication Studies

Emily Bourne  
Communication  
Analysis of Social Hierarchies in the Music Industry  
Adviser: Joseph Terry

Jillian Cataldo  
Communication  
Just Post It: How Nike Has Branded Itself as a Lifestyle through Social Media  
Adviser: Nora Draper

Elena Gregory  
Communication  
President Trump’s Manipulation of Digital Rhetoric during His Presidency and the 2020 Election  
Adviser: Michelle Gibbons

Brooke Marston  
Communication  
Emancipation and Exploitation: Contextualizing the Contraceptive Pill  
Adviser: Nora Draper

Multidisciplinary Session IV: Investigations of the Brain

Kennis Barker*  
Classics, Psychology  
Catarina Santos*  
Psychology  
Investigating Individuals’ Experiences of Visualization While Reading Narratives  
Advisers: Laura Allen, Sarah Creer, Puren Oncel
Sarah Meier*  
Neuroscience and Behavior  
*Denotes students who presented at the virtual URC  
Graph Theory Analysis of fMRI for Chronic Pain Patients Pre- and Post-Acceptance and Commitment Therapy  
Adviser: Donald Robin  

Noah Waller*  
Neuroscience and Behavior  
Regional Brain Activation in Chronic Pain: A Meta-Analysis for Therapeutic Protocol  
Adviser: Donald Robin  

**Multidisciplinary Session V: Ideas and Injustices**

Christopher Ciolfi  
Psychology  
The Impact of Individual Differences on the Phenomenological Experience While Reading  
Adviser: Laura Allen  

Lauren Flynn*  
Human Development and Family Studies, Psychology  
Boring Ideas: Exploring the Effects of Constraints on Creative Idea Generation  
Adviser: Caitlin Mills  

Anika Frink  
Zoology  
Impacts of Inappropriate Human Possession of Wildlife on the Animal’s Well-Being  
Adviser: Janet Anderson  

Devon Guyer*  
Environmental Conservation and Sustainability, Justice Studies  
Creating a Policy Framework to Address Environmental Injustice in the United States  
Adviser: Benjamin Brown  

**Political Ideology and the Rise and Fall of Authoritarianism**

Logan Breton  
International Affairs, Political Science  
Populism and Illiberal Backsliding in Central Europe: A Case Study of Hungary and the Czech Republic  
Adviser: Thomas Safford  

Jirias Charabati  
Civil Engineering, International Affairs  
Understanding Lebanon’s Waste Management Crisis: The Role of Sectarian Governance and Politics  
Adviser: Smita Lahiri  

Tyler Gross  
Homeland Security, International Affairs  
The Ukrainian Crisis and the Possible Ways It Can Be Resolved  
Adviser: Smita Lahiri  

Sophia Henkels  
International Affairs, Political Science  
The New Cold War in the Age of Information  
Adviser: Thomas Safford  

Monica Hughes  
International Affairs, Psychology  
Yazidi Ethnic Culture and Their Recovery from ISIS Persecution  
Adviser: Thomas Safford  

**Public Opinion and Identity Politics in Europe**

Audrey Bradley  
International Affairs, Spanish  
The Role of Bilingual Education in Preserving Regional Languages in Spain  
Adviser: Thomas Safford  

Olivia Brigagliano  
Economics, International Affairs  
Enabling Discrimination? Race-Neutral Policies in France  
Adviser: Smita Lahiri  

Gordon Guilmette  
International Affairs, Political Science  
The Growth of AFD in Germany and How to Combat It  
Adviser: Thomas Safford  

Delana Lane  
International Affairs, Political Science  
Connections between Germany’s Diet Shift and Environmental Sustainability  
Adviser: Thomas Safford  

Timothy Morris  
German, International Affairs  
The Origins of Euroscepticism amongst the German Public  
Adviser: Smita Lahiri  

**The Environmental Politics of Food and Water**

Adviser: Jeannie Sowers  
Olivia Bernier  
International Affairs, Political Science  
Unbottling: The Dark Side of Nestle’s Bottled Water Industry  

Brooke Bernier  
Political Science  
Veganism of the Rich  

Thomas Hawkins  
Political Science  
Environmental and Public Health Impacts of Perfluorinated Chemicals in Southern New Hampshire  

Alana MacDonald  
Political Science  
The Beneficial Environmental Impacts of Veganism  

Emily Thompson  
Environmental Conservation and Sustainability  
How the U.S. Federal Government Addresses Factory Farming  

**War and Peace in Germany: An International Experience in Diplomacy**

Adviser: Alynna Lyon  
Kelsey Crowley  
Elizabeth McCarthy  
Political Science  

Cailee Griffin  
Avery Judd  
International Affairs, Political Science  

Russell Miles  
Applied Mathematics  
War and Peace in Germany: An International Experience in Diplomacy
### World Politics and Human Security in a Changing World

**Simfora Bangasimbo**  
International Affairs, Political Science  
*The United Nations’ Unsolved Problem: Investigating the Relationship between Female Peacekeepers and Sexual Abuse Allegations in Peacekeeping Missions*  
Adviser: Alynna Lyon

**Melinda Hamilton***  
Political Science  
*A Study of Cameroon and South Sudan: How Neoliberal Efforts Shaped Two Countries and a Continent*  
Adviser: Alynna Lyon

**Hannah Machado**  
International Affairs, Italian Studies, Political Science  
*Global Impacts of Brexit*  
Adviser: Alynna Lyon

**Vincent Petracca**  
Political Science  
*Naval Shipbuilding and Maintenance*  
Advisers: Alynna Lyon, Susan Siggelakis

**Brian Wilson***  
Political Science  
*International Organizations and Global Homelessness*  
Adviser: Alynna Lyon

**Sarah Wydra**  
Justice Studies, Political Science  
*A Comparison of Jordan and Lebanon on Their Response to the Syrian Refugee Crisis*  
Adviser: Jeannie Sowers

### All Colleges Undergraduate Research Symposium

#### Poster Presentations, Session B

**Friday, April 24**  
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.

**Maryam Ahmad***  
Biological Sciences, Neuropsychology  
*Synapse: Bridging the Gap between Music and Technology*  
Adviser: Aubrie Dionne

**Taylor Alcorn***  
English, Justice Studies  
*The Effect of Inadmissible Evidence on Jury Decisions*  
Advisers: Donovan Kelley, Kirk Trombley

**Shanna Argyros**  
Psychology  
*Are You Sabotaging Your Own Relationship? A Dyadic Analysis of Emotion Regulation and Satisfaction in Romantic Relationships*  
Adviser: Katherine Lee

**Bridget Baker***  
Genetics  
*Current Dog Breeding Practices’ Impacts on Health and Preservation of Purebred Dogs*  
Adviser: Jessica Bolker

**John Ball**  
Jennifer Mydosh  
Biomedical Science  
*Species Diversity of Methicillin-Resistant Staphylococcus from Domestic and Wildlife Animals*  
Advisers: Cheryl Marie Andam, Robert Gibson, David Needle

**Keirra Bartley***  
Raegan Lynch***  
Isabelle Todd***  
Nutrition  
*Assessing Nutrient Adequacy among Food-Insecure Students at the University of New Hampshire*  
Adviser: Jesse Morrell

**Ava Boutilier**  
Biomedical Science  
*Drug-Dependent Decrease in Waldenstrom macroglobulemia Cell Proliferation and Viability by JAK2/STAT Inhibitor Pacritinib*  
Adviser: Sherine Elsawa

**Mia Brikiatis***  
Educational Studies, English Teaching  
*Literature in the Classroom and Its Effect on Women’s Representation*  
Adviser: Judith Sharkey

**Benjamin Buesser**  
Political Science  
*Religion and Political Conservatism*  
Adviser: Dante Scala

**Carissa Charbonneau***  
Wildlife and Conservation Biology  
*Does Dimorphism Predict Life History Characteristics in Australian Passeriformes?*  
Adviser: Leslie Curren

**Nick Charron**  
Zoology  
*The Catbird’s Meow: An Acoustic Analysis of Gray Catbird (Dumetella carolinensis) Vocalizations*  
Adviser: James Taylor
Isabella Craig*
Psychology
Examination of Individual Differences in Source-Based Writing
Advisers: Laura Allen, Sarah Creer, Puren Oncel

Emily D’Antonio
Nutrition
Social Media Engagement and Psychological Well-Being in Students at University of New Hampshire
Adviser: Kevin Pietro

Kyle Deegan
Neuroscience and Behavior
The Role of Ventral Midline Thalamic Nuclei in Goal-Directed Behaviors
Adviser: Robert Mair

Benjamin Desrochers
Political Science
Public Perceptions of Homeland Security and Surveillance
Adviser: Dante Scala

Ciara Devereaux
Biology
Sonthaya Lacy
Neuroscience and Behavior, Spanish
Elizabeth Rebuck
Psychology
Clio Walsh
Philosophy
“Is That What She’s Wearing?: How Internalized Misogyny Affects the Judgement of Outfits in Different Social Contexts
Advisers: Ewa Kochanowska, Jolie Wormwood, Jaime Young

Ciara Devereaux*
Biology
Sonthaya Lacy*
Neuroscience and Behavior, Spanish
Elizabeth Rebuck*
Psychology
Clio Walsh
Philosophy
“They Said It, Not Me!”: Effects of Internalized Misogyny on Endorsement of Social Media Judgements
Advisers: Ewa Kochanowska, Jolie Wormwood, Jaime Young

Samantha Dionne
Biomedical Science
Cognitive Abilities of Caribbean Hermit Crabs in Navigating a Known Location
Adviser: Leslie Curren

Nikolaos Dishaw
History
The Effects of Age on Party Affiliation
Adviser: Dante Scala

Erica Domeier
Nursing
Nursing Students’ Experiences of Incivility in Undergraduate Nursing Programs and the Perceived Effects on Well-Being
Adviser: Alyssa O’Brien

Elizabeth Dukas
Political Science
Social Connectedness’ Relation to General Happiness
Adviser: Dante Scala

Hannah Duperry*
Neuroscience and Behavior
The Importance of Proactive Control in the Targeted Retrieval of Content-Specific Memory
Adviser: Robert Ross

Alexandra Ecker*
Tyler Stetson*
Neuroscience and Behavior
Using Language to Predict Mind Wandering
Adviser: Caitlin Mills

Travis Fischer
Biochemistry, Molecular and Cellular Biology
GLI3 as a Mediator of Inflammation
Adviser: Sherine Elsawa

Mrinal Ganash*
Bioengineering
Spore Surface Display of Plastic-Degrading Enzymes
Adviser: Kang Wu

Ian Gliser*
Neuroscience and Behavior
The Sound of Inattention: Predicting Mind Wandering with Automatically Derived Features of Instructor Speech
Adviser: Caitlin Mills

Alicia Guzman*
Justice Studies, Psychology
The Statistical Analysis of National Drug Court Data
Adviser: Ellen Cohn

Emma Hancock
Educational Studies, Political Science
How Confidence in the Federal Government Affects Voter Turnout
Adviser: Dante Scala

Emily Handy*
Psychology
What Happens When the Coherence Threshold Is Shifted?
Advisers: Edward O’Brien, Allison Sonia-Bolduc

Michael Harris
Geography
Demographic Regression Analysis of the 2019 Canadian Federal Election Results in GIS
Adviser: Tu Lan

Eric Hilton
English/Journalism, Political Science
How Individual Traits Affect Confidence in Government Institutions
Adviser: Dante Scala

Jessica Hosea*
Neuroscience and Behavior
Effective Connectivity during Cognitive Flexibility
Adviser: Robert Ross

Allison Hurley*
Neuroscience and Behavior
Computational Analyses of Musical Mood Inductions
Advisers: Laura Allen, Sarah Creer, Puren Oncel

Angela Hurley*
Justice Studies, Sociology
UNH Students’ Attitudes about Campus Police
Adviser: Cesar Rebellon

Mikayla Jerominek
Community and Environmental Planning
The “Conservative Democrat”: Analyzing the Elusive Existence of a Leftist Party in America
Adviser: Dante Scala
Philip Kaifer  
Political Science  
*Opinion on Climate Change, Age, Education*  
Adviser: Dante Scala

Katherine King*  
Isabella Thompson*  
Psychology  
*The Relations between Dimensions of Reading Comprehension and Prior Knowledge*  
Advisers: Laura Allen, Sarah Creer, Puren Oncel

Sean Kohlbrenner*  
Computer Science  
*Assessing the Need for Task-Specific Algorithms for Automated Essay Scoring*  
Adviser: Laura Allen

Nicholas LaCourse*  
Political Science  
*Religiosity in Presidential Elections: The Faithful as a Cohesive Political Bloc in the 21st Century*  
Adviser: Dante Scala

Jason Lam*  
Bioengineering  
*The Role of STAT3 in Ovarian Cancer Sphere Formers*  
Adviser: Sarah Walker

Danielle Lamontagne  
Psychology  
*Risk Perception in a Sexual Assault Vignette Depicting LGB or Heterosexual Relationships*  
Adviser: Jolie Wormwood

John Levasseur  
Information Systems and Business Analytics  
*Causes of Public Perception of the Media*  
Adviser: Dante Scala

Yuri Makar  
David Walker  
Biomedical Science  
*Identification of STAT3 Target Genes That Promote Ovarian Cancer Metastasis*  
Adviser: Sarah Walker

Riana Malik*  
Health Management and Policy  
*Health Associations of Health Behavior Indicators and Adverse Childhood Experiences among New Hampshire High School Students*  
Adviser: Semra Aytur

Catherine Micinilio  
Community and Environmental Planning, Sustainability  
*Climate Change Deniers: Why Is There Lack of Trust in Science?*  
Adviser: Dante Scala

Max Miller  
Physics  
*Estimating Errors from Extrapolating Finite-Radii Gravitational Wave Merger Simulations to Infinite Radii*  
Adviser: Francois Foucart

Dennis Miller  
Biotechnology  
*Microbial Diversity of the White Mountains of New Hampshire*  
Adviser: Suzanne Cooke

Angela Monahan  
Neuroscience and Behavior  
*In Situ Hybridization to Determine If Alternatively Spliced N-Type Calcium Channel, CaV2.2 e18a, Is Found in Dopaminergic Cells*  
Adviser: Arturo Andrade

Glenn Morris  
Economics  
*Government Spending*  
Adviser: Dante Scala

Michael Newell*  
Nursing  
*Evaluating the Outcomes of Incorporating LGBTQ+ Panels in Undergraduate Nursing Education*  
Adviser: Alyssa O’Brien

Brenna Niziak*  
Justice Studies, Psychology  
*Meegan O’Connell*  
*Kathleen Tortorella*  
Psychology  
*Depression as a Mediator between Parental Monitoring and Substance Abuse*  
Adviser: Ellen Cohn

Griffin Nye*  
Michael Pellitteri*  
Biomedical Science  
*Multilocus Sequence Analysis of Global Streptococcus canis and Staphylococcus pseudointermedius Reveals Genetically Diverse and Frequently Recombining Lineages*  
Adviser: Cheryl Marie Andam

Abigail Palin*  
Biochemistry, Molecular and Cellular Biology  
*Effect of Fetal Bovine Serum (FBS) on Expression of Cellular Communication Network Factor 1 (CCN1) in Bovine Granulosa Cells*  
Adviser: Paul Tsang

Isabella Pantano  
Nursing  
*Perceptions of Vaping by Adolescents*  
Adviser: Gene Harkless

Siobhan Pelletier  
Nursing  
*Nursing Students’ Self-Reported Responses towards Evidence-Based Vaccine Recommendations*  
Adviser: Gene Harkless

Savannah Pirello-Spraggins  
Sarah Rebillard  
Wildlife and Conservation Biology  
*Fear and Social Learning in the Land Snail Bulimulus guadalupensis*  
Adviser: Leslie Curren

Sarah Pogany*  
Nutrition  
*Changes in Bone Health of Female College Students*  
Adviser: Gretchen Arnold

Griffin Poutre  
Political Science  
*Do Self-Identified Democrats Participate in More Protest Marches Than Self-Identified Republicans?*  
Adviser: Dante Scala

Erin Robert  
Philosophy  
*Disability Ethics and Democratic Rights: An Ethical Analysis of the 1990 Americans with Disabilities Act, as Amended*  
Adviser: Andrew Christie
Mitchell Scacchi  
Political Science  
Political Tolerance  
Adviser: Dante Scala

Logan Slattery  
Economics, Political Science  
Causes of Political Party Alliance in College Students  
Adviser: Dante Scala

Raymond Staples  
Political Science  
Tax Expenditure within the Government  
Adviser: Dante Scala

David Temeng  
Mechanical Engineering  
Optimizing the Die Geometry of B-Pillar to Accommodate for Springback  
Adviser: Marko Knezevic

Katherine Titus  
Anthropology, History  
Preserving the Past for a More Ethical Future: Photogrammetry and Re-Analysis of a Bioarchaeological Sample from Çadır Höyük in Central Turkey  
Adviser: Amy Michael

Gordon Unzen*  
Justice Studies, Philosophy, Psychology  
Introspection as a Moderator of the Relationship between Religiousness and Moral Reasoning  
Adviser: Ellen Cohn

Tyler Wade*  
Biomedical Science  
“C1ORF150”: A Novel Regulator of JAK2 Kinase, and Candidate Tumor Suppressor in Human Blood Cell Progenitors  
Adviser: Don Wojchowski

Emmaline Willis*  
Zoology  
The Evolution and Development of Chiropteran Flight  
Adviser: Jessica Bolker

Zeek Witt  
Political Science  
Public Opinion on Whether Global Warming Is Happening or Not  
Adviser: Dante Scala

Rachel Young*  
Justice Studies, Psychology, Women’s Studies  
What Mattered Most: The Effect of Gender Identity and Mattering on Rule-Violating Behavior  
Adviser: Ellen Cohn

Rachel Zampini*  
Nutrition  
Mindful Eating and Metabolic Syndrome among UNH College Students  
Adviser: Maggie Begis

Advanced Technical Writing  
Adviser: Molly Campbell

Matthew Cohen  
Finance  
Economics: Indicators That Influence Us

Jacob Garner  
Communication  
Looking into Access to Higher Education

Bryce Libbey  
Management  
Career Exploration in the Legal Field

Ashley Martin  
Information Technology  
Technology’s Impact on the Environment: Data Centers

Emily Murphy  
Finance  
Effect of Social Media on Fitness: A Website

Lilian Pudo  
English  
The Art of Creating Children’s Picture Books: A Website

Gabrielle Scott  
English Literature  
College Writing Readiness Gap: A Website

Mason Sweet  
English  
Effective Use of Social Media as a Marketing Platform

Cassandra Townsend  
Biomedical Science  
Exploring the Impact of Culture on Outbreak Containment

Andrew Weaver  
Environmental Engineering  
Downhill Cartography: Mapping Mountain Bike Trails with GPS Data in ArcMap

All Colleges Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 24  
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.

Educational Studies  
Adviser: Judith Sharkey

Olivia Doulames*  
Margaret Potvin*  
Educational Studies, Human Development and Family Studies  
Can We Expand the Playing-Learning Field? Perspectives from UNH Education Field Experience Coordinators and Directors

Lauren Eramo*  
Educational Studies, Human Development and Family Studies

Zachary Kelly*  
Educational Studies, History

Educational Studies Faculty Perspectives on the Role of Field Experiences in Developing Educators
Colleen Keyes*
Educational Studies, History

Brittany Missert*
Educational Studies, English Teaching

Ashley Storey*
Educational Studies, Human Development and Family Studies
Building Our Field of Dreams: UNH Education Students’ Perspectives on Expanding Field Experiences in Their Program

Hannah Touzos
Political Science
Coral Reef Decay in the Bahamas

Philip Trajkovski
Environmental Conservation and Sustainability
The Politics of Nuclear Waste

Multidisciplinary Session VI:
Culture and Behaviors

Adrian Cea Cruz
Neuroscience and Behavior
People's Understanding of Personality and Their Everyday Behavior
Adviser: John Mayer

Nicole Cooper*
Kinesiology
Native Americans and Climate Change through Feminism
Adviser: Tamsin Whitehead

Hayleigh Hildebrand
Environmental Sciences, Russian
Russian Youth, Politics, and Pop Songs
Adviser: Ekaterina Burvikova

Gordon Unzen*
Justice Studies, Philosophy, Psychology

Rachel Young*
Justice Studies, Psychology, Women's Studies
Justice Attitudes, Adolescent Bullying Behavior/Victimhood, and the Effects of Masculinity, Femininity, and Androgyny
Adviser: Ellen Cohn

Multidisciplinary Session VII:
History and Politics

Benjamin Bernier*
History
Black, White, and Read All Over: Tracing Journalistic Perspectives of the Civil Rights Movement
Adviser: Janet Polasky

Cameryn Boland
Linguistics
Globalicious: Global Trends of the Suffix -licious in the 2010s
Adviser: Rochelle Lieber

Samuel Mercer*
Chemical Engineering
Comparing the History of the State Police between Maine and New Hampshire
Adviser: Alex Holznienkemper

Erin Robert
Philosophy
Disability Ethics and Democratic Rights: An Ethical Analysis of the 1990 Americans with Disabilities Act, as Amended
Adviser: Andrew Christie

Multidisciplinary Session VIII:
Topics in the Sciences

Tristan Anderson
Physics
Dynamic Nuclear Polarization and Nuclear Magnetic Resonance with Applications in Medical Physics
Adviser: Karl Slifer

Jonathan Cooper*
Bioengineering
Selective Detection of Dopamine Utilizing a Graphene-Based Field Effect Transistor with a Microfluidic Channel
Adviser: Edward Song

Emily Dunlop*
Zoology
A Comparison of Welfare Considerations among Captive Animals
Adviser: Jessica Bolker

Taylor Gagne*
Neuroscience and Behavior
Comorbid Effects of Nicotine and Alcohol on Demand in Rats
Adviser: Sergios Charntikov

Michael Moheban
Chemistry
Synthesis of a Novel Class of Compounds: Intramolecular N-heterocyclic Borole Frustrated Lewis Acid/Base Pair
Adviser: Christine Caputo

Vincent Pagano
Environmental Conservation and Sustainability
Offshore Wind in Northern New England: An Examination of Political, Environmental, and Economic Factors
Adviser: Clayton Mitchell
Remembrance of Things Past: The Asian Legacy
Adviser: Lawrence Reardon
Isabella Arms
Italian Studies, Political Science
The Human Cost of Chinese Investment

Jokaira German
Political Science
Japan and South Korea: An Inconsolable History

Kimberly Gravlin*
Political Science
Japan's Declining Population and Its Integration of Outward-Focused Policies

Benjamin Kelley*
Political Science
Taiwan: Japan's Only Asian Ally

Thomas McDonough*
Political Science
Effects of Korean Policy on International Soft Power

Selected Papers in Conversation Analysis
Adviser: Edward Reynolds

Zachary Astle
Communication
Membership and the Creation of Hierarchies in the Sport of Throwing

Riley Nadeau*
Communication
The Practice “I Mean” Being Used for Initiating Self-Repair

Stephanie Rodriguez
Communication
The Practice of Swearing in Conversation Analysis

Abdulaziz Zarandah
Business Administration, Communication “I Guess” in Conversation Analysis

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

Poster Session I

Friday, April 24
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.

B.S. & B.A. Economics

Mariam Abougareeb
Ellen Goulding
Grace Monahan
Economics
The Effects of Immigration on Wages of Native Workers
Adviser: Reagan Baughman

Hazel Alvarez
Nicholas Nilsen
Mary Shotton
Economics
Andrea Scarfo
Economics, Sustainability
Strategies for Poverty Reduction in Brazil
Adviser: Reagan Baughman

Zhehan Bao
Owen Graham
Economics
Andrew Merchant
Business Administration, Economics
How the Move toward Automation Will Affect U.S. Workers
Adviser: Reagan Baughman

Olivia Brigagiano*
Economics, International Affairs
The Labor Market Effects of Immigration
Adviser: Aziz Saglam

Bryce Currier
Connor Holman
Economics
Andrew Merchant
Business Administration, Economics
A Tax That Does Good: The Case of Cigarettes
Adviser: Reagan Baughman

Shaun DeJong
Economics, Wildlife and Conservation Biology
Ivana Korusiakova
Accounting, Economics, Finance
Kevin Murphy
Economics, Finance
What Caused Greece’s Economic Crisis?
Adviser: Reagan Baughman

Hayden Foley*
Economics, Sociology
Wages and Prices: Are Workers Fully Compensated for Cost of Living Differences?
Adviser: Aziz Saglam

Daniel Frehner
Economics, History
Cameron MacDonald
Economics, Political Science
Amanda Sullivan
Economics
The Economics of the Gender Wage Gap
Adviser: Reagan Baughman

Andrew Graff*
Economics
Economic Benefits of Renewable Energy
Adviser: Aziz Saglam

Aurora Braswell
Robert Shannon
Economics
Kevin Teng
Business Administration, Finance
How the Move toward Automation Will Affect U.S. Workers
Adviser: Reagan Baughman

* Denotes students who presented at the virtual URC
Sarah Hobbs*
Economics, Finance
Central Bank Independence and Economic Growth
Adviser: Aziz Saglam

Joseph Hook*
Economics
Social Security: Crisis and Solutions
Adviser: Aziz Saglam

Caroline Kageleiry*
Economics
A Socioeconomic Model of National Olympic Performance
Adviser: Aziz Saglam

Ali Mara*
Applied Mathematics
The Role of Socioeconomic Status in SAT Scores
Adviser: Aziz Saglam

Patrick Morse
Economics
Gaming Industry: Stock Market Performance
Adviser: Aziz Saglam

Richard Planchet*
Economics
Planned Parenthood and Economy
Adviser: Aziz Saglam

Christian Reardon*
Economics
Economic Impacts of Artificial Intelligence
Adviser: Aziz Saglam

Lea Iuliano*
Italian Studies, Sociology
What You Say vs. What You Do: The Disparities between UNH Students’ Beliefs vs. Actions towards Environmental Awareness
Advisers: Della Burke, Daniel Winans

Kristine Keller-Miller*
Accounting, Ecogastronomy, Information Systems and Business Analytics
Assessing Market Viability of Heirloom Vegetables through Farmer and Chef Collaboration
Advisers: Alison Magill, Daniel Winans

Jennifer Howes*
Ecogastronomy, Nutrition
Cream, Sugar, or Black: Coffee Intake Patterns in Relationship to Body Mass Index of University of New Hampshire Students
Advisers: Sherman Bigornia, Daniel Winans

Lea Iuliano*
Italian Studies, Sociology
What You Say vs. What You Do: The Disparities between UNH Students’ Beliefs vs. Actions towards Environmental Awareness
Advisers: Della Burke, Daniel Winans

Kristine Keller-Miller*
Accounting, Ecogastronomy, Information Systems and Business Analytics
Assessing Market Viability of Heirloom Vegetables through Farmer and Chef Collaboration
Advisers: Alison Magill, Daniel Winans

Jessica Letellier*
Taylor Zupo*
Economics
Development of Indigenous Foods Education Program for New Hampshire Elementary Schools
Advisers: Stacey Purslow, Daniel Winans

Merideth Parvin*
Ecogastronomy, Nutrition
Isabella and the Habichuelas con Dulce: Exploring Latin American Food and Culture through Development of a Children’s Book
Advisers: Ruth Wharton-McDonald, Daniel Winans

Grace Stott*
Ecogastronomy, Nutrition
Design and Implementation of a Nutrition Education Program at the Strafford County Department of Corrections
Advisers: Rochelle L’Italien, Daniel Winans

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

Friday, April 24
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.

Economics of Sports
Adviser: James Wible

Zhehan Bao
Economics
Golden State Firm Perspective

Geoffrey Bearden
Finance
An Economic Analysis of the New England 2007 Roster

Bretton Belden
Economics
An Economic Analysis of the St. Louis Cardinals Roster and Salary Management

Micheal Curley
Information Systems and Business Analytics
An Economic Analysis of the San Francisco 49ers Labor

Matthew Erb
Finance
An Economic Analysis of the Milwaukee Bucks Roster

Bryson Herring
Information Systems and Business Analytics
Economics of Dallas Cowboys Roster Value
Paige Hughes  
Economics, Finance, Marketing  
Economic Analysis of the Pittsburgh Steelers  

Trevor Hunt  
Finance  
An Economic Analysis of the San Antonio Spurs  

Jack Larche  
Economics  
The Roster Economics of the Philadelphia 76ers  

Eric Lugli  
Analytical Economics  
An Economic Analysis of the Los Angeles Clippers  

Sadie Mazzola  
Analytical Economics  
An Economic Analysis of the Los Angeles Dodgers Roster  

Christopher Mead  
Economics  
Vegas Golden Knights as a Monopoly  

David Michel  
Information Systems and Business Analytics  
Labor Economics of the Minnesota Vikings  

Ian Moscaritolo  
Business Administration  
Economics of the New Orleans Saints Roster  

Christopher Mudrick  
Economics  
Do the Cincinnati Reds Have a Monopoly on Labor in Their Market?  

Brendan Nichols  
Information Systems and Business Analytics  
Labor Economics of the New York Giants Roster  

Nicholas O’Neil  
Finance  
A Look at the New York Knicks Organization  

Connor O’Neil  
Management  
Red Sox Roster Sports Economics Project  

Jonathan Olson  
Information Systems and Business Analytics  
Labor Economics of the New York Yankees  

Dennis Panneton  
Political Science  
Toronto Raptors: Labor and Roster  

Bronson Paradis  
Management  
An Economic Analysis of the Pittsburgh Steelers Roster  

Aaron Rancourt  
Economics  
An Economic Analysis of the Labor and Roster of the Tampa Bay Buccaneers  

Cameron Richall  
Finance  
Economics of the Pittsburgh Penguins Roster  

Jared Silkman  
Finance, Management  
Boston Celtics: Labor/Roster  

Anthony Sturzo  
Management  
Golden State Warriors Roster: Sports Economics Project  

Jakob Walker  
Economics  
The Economics of the Boston Bruins  

Matthew Wilson  
Business Administration  
Economic Analysis of the Tampa Bay Rays Roster Structure  

Alexei Baranov  
Joseph Suriner  
Samantha Woodward  
Information Systems and Business Analytics  

Kristine Keller-Miller  
Accounting, Ecogastronomy, Information Systems and Business Analytics  

Justin Thomas  
Information Systems and Business Analytics, Marketing  
DecSecOps  
Adviser: Peter Zaimes  

Jack Barnes  
Chunyang Li  
Nicholas Rocchio  
Information Systems and Business Analytics  

Corey Mills  
Business Administration, Finance, Information Systems and Business Analytics  
Red River Communications Tools Analysis  
Adviser: Peter Zaimes  

Cassidy Bartlett  
Skyler Tarcazi  
Information Systems and Business Analytics  

Brendan Boyle  
Brendan O’Connor  
Information Systems and Business Analytics  

Ian Moscaritolo  
Business Administration  
New Balance: Global Merchandising  
Adviser: Roger Grinde  

Brianna Becotte  
Thomas Simo  
Business Administration  

Anthony Costalas  
Information Systems and Business Analytics, Management  

Corey Gallagher  
Information Systems and Business Analytics, Marketing  
PMAC: Data Management (Blue Team)  
Adviser: Roger Grinde  

Alexa Ardolino  
Business Administration, Information Systems and Business Analytics  

Liam Costello  
Information Systems and Business Analytics, Management  

Brooke Dacy  
Laura Shea  
Information Systems and Business Analytics  

Ethan Zarak-Croke  
Undeclared  
New Balance Roadmap (Blue Team)  
Adviser: Roger Grinde
Collin Belt  
Nicholas LaCreta  
Xinping Yu  
Finance, Information Systems and Business Analytics  
**Lauren Lumbra**  
Accounting, Information Systems and Business Analytics  
*Communication Tools at Red River Technologies*  
Adviser: Peter Zaimes

Bridget Burkett  
James Walsh  
Information Systems and Business Analytics  
**Kirsten LaFleur**  
Business Administration  
**Skyla Mrosk**  
Finance, Information Systems and Business Analytics  
*Portsmouth Music and Arts Community Center: Data Management and Analytics*  
Adviser: Peter Zaimes

Nicholas Cambra  
Catherine Mathews  
Zyan Prestridge  
Finance, Information Systems and Business Analytics  
**Carter Mercer**  
Information Systems and Business Analytics  
*Savvy Management: Agile Assessment Tool*  
Adviser: Russell Miles

Shuai Chen  
Elliot Ferland  
Information Systems and Business Analytics  
**Charles Gates**  
Taffarel Putra  
Finance, Information Systems and Business Analytics  
**Laci Hanington**  
Information Systems and Business Analytics, Marketing  
*DevSecOps: Red River*  
Adviser: Peter Zaimes

Cameron Chrystal  
Information Systems and Business Analytics, Marketing  
**Thomas Matthews**  
Olivia Patrick  
Arielle Seavey  
Information Systems and Business Analytics  
*Lindt Supply Chain (Red Team)*  
Adviser: Peter Zaimes

Micheal Curley  
Bailey Cestau  
Jiamin Zhang  
Information Systems and Business Analytics  
**Connor Goff**  
Finance, Information Systems and Business Analytics  
*Lindt Chocolate Customer Supply Chain*  
Adviser: Russell Miles

Danielle Doonan  
Information Systems and Business Analytics, Marketing  
**Connor Finucan**  
Finance, Information Systems and Business Analytics  
**Taylor White**  
Information Systems and Business Analytics  
**Lauren Reissfelder**  
Accounting, Information Systems and Business Analytics  
*New Balance Global Merchandising (Red Team)*  
Adviser: Russell Miles

Mengsijing Gao  
Riley Gardner  
Jonathan Olson  
Information Systems and Business Analytics  
**Page Laurendeau**  
Finance, Information Systems and Business Analytics  
*Lindt Chocolate Risk Assessment System*  
Adviser: Russell Miles

Althea Gere  
Erick MacCormack  
Emma Nofske  
Max Polay  
Information Systems and Business Analytics  
**Hailey Studley**  
Information Systems and Business Analytics, Marketing  
*New Balance OGSP*  
Adviser: Roger Grinde

Kyle Gourley  
Accounting, Information Systems and Business Analytics  
**Zachary Kidd**  
Information Systems and Business Analytics  
**Brian Letourneau**  
**Cara Small**  
Finance, Information Systems and Business Analytics  
*Agile Assessment Tool for Savvy Management*  
Adviser: Russell Miles

Thomas Licence  
Business Administration  
**Kyle Lorenz**  
Zhuying Yang  
Information Systems and Business Analytics  
**Christine Tringali**  
Accounting, Information Systems and Business Analytics  
*Lindt Risk Assessment*  
Adviser: Russell Miles
Brandon McNeil
Sara Sherburne
Finance, Information Systems and Business Analytics
David Michel
Xinmiao Zhao
Information Systems and Business Analytics
TBR: Corporate Project Experience (Blue Team)
Adviser: Peter Zaimes

* Denotes students who presented at the virtual URC

**Denotes students who presented at the virtual URC

**FRIDAY 4/24

**Brandon McNeil**
**Sara Sherburne**
Finance, Information Systems and Business Analytics
David Michel
Xinmiao Zhao
Information Systems and Business Analytics
TBR: Corporate Project Experience (Blue Team)
Adviser: Peter Zaimes

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

**Poster Session III**

**Friday, April 24**

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.

**Economics of Climate Change**

Adviser: Robert Mohr

Aurora Braswell*
Christopher Sheikhabdou*
Economics
Alexander Bunnell*
Marketing
Climate Policy in Massachusetts

Owen Gagnon*
Applied Mathematics
Sebastian Hart-Meyer*
Economics
Zachary Kay*
Environmental and Resource Economics
Andrea Scarfo*
Economics, Sustainability
The Regional Greenhouse Gas Initiative: 15-Year Overview and Analysis

Benjamin Gallahue*
Environmental and Resource Economics
Ryan Leonard
Nicholas Nilsen*
Economics
Matthew Quirk*
Political Science
Climate Mitigation in Australia

Ellen Goulding*
Robert Iannarilli*
Daniel Pinheiro*
Economics
Climate Change Policy of California

Andrew Meyer*
Analytical Economics
Sean Orr*
Mary Shotton*
Economics
Climate Policies in New Zealand

Ryan Rose*
Michael Sullivan*
Environmental and Resource Economics
Climate Policy in the Commonwealth

**Multidisciplinary/Honors Thesis**

Parker Armstrong*
Economics, Mathematics
Airline Fare Competition in the Post-Merger Era
Adviser: Aziz Saglam

Jack Barnes*
Information Systems and Business Analytics
IT Security Policy Compliance: A University Perspective
Adviser: Kholekile Gwebu

Oliver Botthof*
Finance
The Future of Actively Managed U.S. Equity Funds
Adviser: Huimin Li

Nicholas Brown*
Economics
Using Daily Market Reports to Determine Whether the Efficient Market Hypothesis or the Behavioral Finance View Has More Support
Adviser: Michael Goldberg

Abigail Chapman*
Entrepreneurial Studies, Finance
Analysis of Jamie Dimon: Impact of Leadership and Culture at JPMorgan Chase & Co.
Adviser: Richard Kilbride

Attilio CrimiVaroli*
International Business and Economics
The Relationship between Spending Money and On-Field Success in World Soccer
Adviser: Kevin McLaughlin

Colin Daly*
Finance, Marketing
Future of Netflix
Adviser: Kevin McLaughlin

Margaret Daumphain*
Marketing
CSR Communication Techniques: How to Steer Away from Consumer Skepticism
Adviser: Lin Guo

Megan Elwell*
Accounting, Finance
Understanding the Importance and Impact of Technology in an Accounting Setting: Work Outcomes and Relationships with Clients
Adviser: Le Xu

Ilya Feldman*
Economics, Marketing
The Effect of University Sales Education on That Career Success after a Year from Graduation
Adviser: Thomas Gruen

Sean Fontaine*
Finance, Marketing
Analyzing the Effectiveness of Nike Balance's Efforts to Differentiate from Nike
Adviser: Matthew O’Hern

Catherine Francis*
Accounting, Information Systems and Business Analytics
Understanding the Importance and Impact of Technology in an Accounting Setting
Adviser: Linda Ragland

Kyle Gourley*
Accounting, Information Systems and Business Analytics
The Effect of Taxation on Earned Income
Adviser: David Hasseldine
Annie Henry*  
International Business and Economics  
Exploring the Gender-Based Funding Gap in the International Angel Investment Sector  
adviser: Jeffrey Sohl

Delaney Housley*  
Finance  
The Effect of Gender on Ethical Investing  
adviser: Stephen Ciccone

Katelyn Howe*  
Information Systems and Business Analytics, Marketing  
The Mortgage Industry: Has It Changed Since the Great Recession?  
adviser: Michael Goldberg

Madeline Karlberg*  
Accounting, Finance  
The Effect of CSR and Female Presence in Corporate Governance on a Firm's Tax Avoidance  
adviser: Viktoriya Staneva

Ivana Korusiakova*  
Accounting, Economics, Finance  
The Effects of Pensions Changes on Fortune 500 Companies and the Stock Market  
adviser: Stephen Ciccone

Timothy Larkin*  
Accounting, Finance  
The Transformation of Accounting Information Systems Curriculum in the Last Decade  
adviser: Linda Ragland

Amanda Lee*  
Accounting  
Data Analytics in Top Accounting Programs in the U.S.  
adviser: Le Xu

Kara MacDonald*  
Marketing  
Listening in: Investigating Social Media Activity in the Streaming Services Industry  
adviser: Matthew O’Hern

Amber Man*  
Management, Marketing  
Global Marketing Strategy of Uber and Lyft  
adviser: Goksel Yalcinkaya

Andrew McCarthy*  
Finance  
Negative Interest Rates and Their Effect on Asset Prices in the European Economy  
adviser: Jaroslav Horvath

Sinead McDonagh*  
Finance, International Business and Economics  
What Drives Prices within Financial Markets?  
adviser: Michael Goldberg

Porter McManus*  
Entrepreneurial Studies, Finance  
How Efficient Is Market Pricing: IsAlpha Generation about Luck or Can There Be an Exploited Skill? Further, Is It Possible That Alpha Is Only about Exploiting the Mistakes of Others?  
adviser: Richard Kilbride

Brandon McNeil*  
Finance, Information Systems and Business Analytics  
UNH Honors Thesis: Airbnb  
adviser: Christopher Glynn

Carter Mercer*  
Information Systems and Business Analytics  
Estimating the Housing Market Response to Sea Level Rise  
adviser: Christopher Glynn

Kevin Murphy*  
Economics, Finance  
Causes of Chaos: Financial Crisis in Latin America  
adviser: Ahmad Etebari

Dante Povinelli*  
Analytical Economics  
Addressing the Social Costs of Aquaculture Pollution: Aquap�osis vs. a Pollution Tax  
adviser: Shadi Atallah

Ryan Quinn*  
Accounting, Finance  
Tax in the 2020 Presidential Election  
adviser: David Hasseldine

Bryan Richardson*  
Accounting, Business Administration, Management  
Can Fundamental Accounting Analyses Be Used to Predict Macroeconomic Conditions?  
adviser: Le Xu

Brian Rivet*  
Finance  
Valuation of Professional Sports Franchises  
adviser: Stephen Ciccone

Anupreet Saini*  
Accounting, Business Administration, Finance  
Risky Business: Investigating the Relationship between Background and Risk-Taking in CEOs  
adviser: Stephen Ciccone

William Saunders*  
Accounting, Finance  
An Analysis of Excise Taxes on Wine in the United States  
adviser: David Hasseldine

Jessica Shah*  
Analytical Economics, International Affairs  
The Impact of Paid Leave on Employment of Women: The Case of Family Leave in California  
adviser: Reagan Baughman

Cara Small*  
Finance, Information Systems and Business Analytics  
Predicting Gross Revenue Using Online Movie Reviews  
adviser: Seyed Ali Hojjat

Chad Supranowicz*  
Business Administration, Finance, Management  
The Impact of Tax Breaks and Incentives for Corporations on Local Economies  
adviser: Peter Zaimes

Enoska Ventura*  
International Business and Economics  
The Fading American Dream: Upward Mobility and the Effect on Personal Income  
adviser: Loris Rubini

Biyu Wang  
Finance, Marketing  
A Case Study on Citizen Schools  
adviser: Michael Swack

Jake Yennaco*  
Business Administration, Economics  
Effect of Elections on Healthcare Returns  
adviser: Ahmad Etebari
Peter T. Paul College of Business and Economics Undergraduate Research Conference

Oral Session

Friday, April 24
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.

Marketing Workshop Presentations

Adviser: Peter Masucci

Nicolas Agostini*
Kara MacDonald*
Marketing
Kelsey Girard*
Finance, Marketing
Jillian Sellers*
Marketing, Psychology
Paul College Executive Education: Design and Develop Marketing Programs to Increase Awareness of and Registrations to These Post-Graduate Programs

Connor Allwood*
Ethan Floyd*
Xiangxiang Huang*
Emily Morris*
Marketing
Theresa MacDowell*
Marketing, Sustainability
Hampton Police Department: Design and Develop Marketing Programs Aimed at Increasing Applications for Part-Time, Seasonal Police Officers in This Seacoast Resort Town

Robert Anderson*
Margaret Dauphinais*
Connor Finnegan*
Campbell Quinn*
Marketing
Hunter Lambroff*
Sarah MacEachern*
Management, Marketing
Maine Beer Cafe: Research and Development of Marketing Programs to Increase Awareness of and Business at This Kittery, Maine, Small Family-Run Restaurant

Brianna Arsenault*
Kalie Dougherty*
Alex Hiltz*
Marketing
Katharina Barta*
International Business and Economics, Marketing
Justin Thomas*
Information Systems and Business Analytics, Marketing
Paul College MBA Program: Research and Design Marketing Programs to Better Position Online versus In-Person Courses to Prospective Graduate Students

Tyler Babst
Anthony DeBeer
Isabella Zampieri
Marketing
Danielle Doonan
Information Systems and Business Analytics, Marketing
Madison Murdick
Finance, Marketing
Kimberly Tsui
International Business and Economics, Marketing
Edvance Life Skills: Research and Develop Marketing Programs to Increase Awareness of and Drive Sales for This NH-Based Life Skills Educational Tools Company

Taylor Barbagallo*
Dana Levine*
Justin Maguire*
Management, Marketing
Luke Gouldsbrough*
Christina Sears*
Tanner Williams*
Marketing
Ames Farm Inn: Research and Develop Marketing Programs to Increase Bookings at This Family-Owned Inn on Lake Winnipesaukee

Cassidy Bartlett*
Information Systems and Business Analytics, Marketing
Cortlynn Danby*
Alexa Guerrieri*
Management, Marketing
Michael Dateo*
Shivani Sudan*
Marketing
Patriot Resilient Leader Institute: Design and Develop Marketing for This Non-Profit Which Provides Support Services and Programs for Military Veterans and First Responders at Camp Resilience in Gilford, NH

William Berberich
Paige Duffy
Madison Jackson
Christina Pescatore
Marketing
Sean Fontaine
Finance, Marketing
Marissa Massaro
Marketing, Psychology
Paul College Hospitality Management, Part 1: Design and Development of Marketing Programs to Encourage Intra-University Transfers into the Program

Eric Berkemeier*
Alison Vee*
Entrepreneurial Studies, Marketing
Sarah Mahon*
Alvin Nathaniel*
Conor O’regan*
Abigail Stearns*
Marketing
UNH Advance, Part 2: Design and Develop Marketing Tools and Campaigns to Prepare for the Launch of This New Online Training Tool

Shae Berry*
Claire Durfee*
Taylor Nottebart*
Finance, Marketing
Ri Gulotta*
Jarrett Torriere*
Marketing
Max Porrazzo*
Management, Marketing
Mola Foods: Research and Develop Marketing Programs to Expand Awareness of and Product Sales for This Authentic African Food Products Company
Jacquelyn Boucher  
Hospitality Management, Marketing  
Eric Perry  
Bryce Wydra  
Marketing  
Ingela Shannahan  
Finance, Marketing  
Clare Wetmore  
Management, Marketing  
* Denotes students who presented at the virtual URC  

White Birch Armory: Research and Develop Marketing Programs to Raise Awareness of and Increase Sales for This Dover, NH, Supplier of Firearms and Ammunition  

Elizabeth Brandt*  
Evan Carpinella*  
Colin Daly*  
Finance, Marketing  
Joseph Capodagli*  
Marketing  
Devin Cowhig*  
Management, Marketing  
Paige Hughes*  
Economics, Finance, Marketing  
Margaritas Mexican Restaurants: Research and Design Marketing Program to Attract More Millennials to This Authentic Mexican Cuisine Restaurant  

Ciara Brooks  
Jonathan Dryja  
Nola Hesby  
Kaley Patterson  
Marketing  
Madeline Ragno  
Management, Marketing  
Biyu Wang  
Finance, Marketing  
Albacore Submarine Museum: Research and Develop Marketing Programs to Support a Planned Capital Campaign for a New Maritime Museum Building  

Ryan Brooks*  
Benjamin Factor*  
Tyler Swarthout*  
Marketing  
Grace Gendron*  
Management, Marketing  
Cassandra Lee*  
Finance, Marketing  
Jordan Ross*  
Hospitality Management, Marketing  
Paul College Hospitality Management, Part 2: Research and Design Marketing Programs to Attract Students from Community Colleges to Come to UNH to Complete Their Bachelor's Degree  

Alexander Bunnell*  
Lily Pabo*  
Ashley Twombly*  
Ponmani Vongsay*  
Marketing  
Taylor Spica*  
Management, Marketing  
Palette Pavilion: Research and Design Marketing Programs to Increase Awareness of and Ticket Sales for This Arts and Entertainment Venue  

Scott Callahan*  
Travis Hurley*  
Kalyani Pearson*  
Emma Riley*  
Marketing  
Ilya Feldman*  
Economics, Marketing  
Elizabeth Lane*  
Entrepreneurial Studies, Marketing  
Paul College Sales Program, Part 2: Design and Develop Marketing Materials and Videos to Increase Awareness of and Recruitment of Students to the Program  

Jeffrey Campanile  
Timothy Collins  
Qixin Yang  
Marketing  
Luke Doverspike  
Marketing, Sustainability  
Heather Hill  
Marketing, Social Work  
Emily Vien  
Finance, Marketing  
NH Veterinary Diagnostic Lab: Design and Develop Marketing Programs to Increase Awareness of the Lab through Social Media Marketing  

Marissa Capone*  
Nicholas Fay*  
Caroline Tucker*  
Marketing  
Samantha Galvin*  
Accounting, Marketing  
Liam Smith*  
Finance, Marketing  
Bear-Paw Regional Greenways: Design and Develop Marketing to Help Increase Awareness and Support for This Non-Profit Organization Dedicated to Preserving Wildlife Habitat  

Kayley Cedrone  
Allison Fasold  
Laura McArdle  
Marketing  
Corey Gallagher  
Information Systems and Business Analytics, Marketing  
Julianna Rinaldi  
Hospitality Management, Marketing  
Lauren Silver  
Management, Marketing  
A House for ME: Research and Develop Marketing Programs to Increase Awareness of This Residential Facility for Young Adults Living with Autism or Other Developmental Problems  

Nicholas Celentano*  
Jeffrey Foster*  
Finance, Marketing  
Haley Flynn*  
Madelyn McAteer*  
Marketing  
Peter Grande*  
Management, Marketing  
UNH Housing: Research and Develop Marketing Programs to Expand Awareness of and Bookings for Housing Facilities during the Summer  

Cameron Chrystal  
Skyler Tarczali  
Information Systems and Business Analytics, Marketing  
Julia Dushane  
Alexander Haslam  
Andrew Peick  
Emily Tennis  
Marketing  
UNH Hamel Recreation Center: Design and Develop Marketing Programs to Encourage Use of the Center by Current Non-Users
Michael Ciardiello  
Jordan Murray  
Kevin Shields  
Zoe Fitzgerald  
Daphne Jordan  
Youngmin Kim  
Marketing  
* Measured Air Performance: Design Marketing Programs to Increase Awareness of and Generate Sales Leads for This NH-Based Technology Start-Up Company

Emma Conner*  
Kathleen McDermott*  
Thomas Roark*  
Gavin Tierney*  
Marketing  
* Hunter Letendre*  
Entrepreneurial Studies, Marketing  
* NextStep HealthTech: Research and Development of Marketing Programs to Increase Awareness and Sales of Online Health Management Tools

Benjamin Couture  
Cassandra Jennell  
Jiayuan Lin  
Max Ravenelle  
Marketing  
Nicholas Karas  
Communication, Marketing  
Erika Sillon  
Management, Marketing  
UNH Memorial Union Building: Research and Develop Marketing Programs to Raise Awareness and Use of Facilities and Programs Offered at the MUB

Connor Czerepuszko  
Robert Girardin  
Marketing  
Alexandra Fogarty  
International Business and Economics, Marketing  
Justin O’Donnell  
Amy Stanieich  
Bridget Stockwell  
Management, Marketing  
UNH Advance, Part 1: Research and Develop Marketing Programs for a New Faculty and Staff Training Tool

Tiger DeStefano*  
Vincent LoBuono*  
Hannah Saulnier*  
Finance, Marketing  
Philip Hughes*  
Catherine Riley*  
Neve Thompson*  
Marketing  
Wild Valentine: Design and Develop Marketing for This NH-Based Florist and Gift Boutique Start-Up Company

Erin DeWolfe*  
Mary Farley*  
Alexander Kosheff*  
Marketing  
Laci Hanington*  
Information Systems and Business Analytics, Marketing  
Carlton Robie*  
Kinesiology, Marketing  
Emma Woodhouse*  
Management, Marketing  
Community Loan Fund of NH: Develop Marketing Programs and Materials for This Provider of Loans to the Traditionally Underserved

Matthew Freda  
Nguyen Phuong Khanh Huynh  
Amber Man  
Management, Marketing  
Katherine Goodrich  
Finance, Marketing  
Colin MacDonald  
Nathan Sheeler  
Marketing  
UNH Graduate School: Research and Develop Marketing Activities to Increase Awareness of and Applications to the Accelerated Master’s Degree Program

Jaimee Hersch*  
Communication, Marketing  
Hanna Lawler*  
Hospitality Management, Marketing  
Alexander McKenna*  
International Business and Economics, Marketing  
Connor McNamara*  
Di Sun*  
Marketing  
UNH Olson Manufacturing Center: Research and Develop Marketing Programs to Increase Awareness and Promotion of This Advanced Manufacturing Center in the College of Engineering and Physical Sciences

Charles Lamplough  
Jennifer Luetters  
Tara Marand  
Marketing  
Hailey Studley  
Information Systems and Business Analytics, Marketing  
Payton Taylor  
Communication, Marketing  
Logan Welti  
Entrepreneurial Studies, Marketing  
Paul College Sales Program, Part 1: Research and Development of Marketing Materials Aimed at Increasing Registration and Participation
FRIDAY 4/24

**UNH Manchester**

**URC Engineering Technology Day**

**Senior Project Presentations**

**Friday, April 24**
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.

**Owen Armricht**
Mechanical Engineering Technology  
VEX Robotics Activities for ET Labs  
Adviser: Robert Arredondo

**Denys Bowen**
Mechanical Engineering Technology  
Pneumatic Educational Training  
Equipment Implementation in a University ET Program  
Adviser: Theodore Tavares

**Branden Chandonnet**
Mechanical Engineering Technology  
Fixture Redesign for Pull Tester  
Adviser: Robert Arredondo

**Alexis Condon**
Electrical Engineering Technology  
Design of a Robotic Cell for the UNH Manchester Machine Shop  
Adviser: Robert Arredondo

**Alexander Desmarais**
Mechanical Engineering Technology  
**Devan Piper**
Electrical Engineering Technology  
Mobile I.V. Systems Process Improvement  
Advisers: Christopher LeBlanc, Glenn Shwaery

**Peter Do**
Electrical Engineering Technology  
**Matthew Larochelle**  
**Kyle Lyndes**  
**Tyler Slock**
Mechanical Engineering Technology  
Research and Development for Coordinating Small Autonomous Braintenberg Vehicles  
Adviser: Theodore Tavares

**Ryan Dunn**
Electrical Engineering Technology  
Current Sensor Bandwidth Tester System Upgrade  
Adviser: Christopher LeBlanc

**Cameron Ferry**
Mechanical Engineering Technology  
Defect Reduction: Fabric Dip Coating  
Advisers: Robert Arredondo, Theodore Tavares

**Devin Ferry**
Mechanical Engineering Technology  
Geneva Indexing Device and Walking Beam Conveyor  
Adviser: Robert Arredondo

**Tyler Gee**
Mechanical Engineering Technology  
Defect Reduction: Fabric Dip Coating  
Advisers: Robert Arredondo, Theodore Tavares

**Alish Gurung**
Mechanical Engineering Technology  
Movable Guitar Pick-Up Project Phase II (2019-2020)  
Adviser: Robert Arredondo

**Christopher Hill**
Mechanical Engineering Technology  
**Thomas Kelly**
Electrical Engineering Technology  
NHTT’s Robotic Soldering System Redesigned for Automated Assembly  
Advisers: Robert Arredondo, Joseph Cunningham

**Kyle Johnson**
Mechanical Engineering Technology  
Manufacturing Process Improvement through Automated Workholding for Future Robotic Automation  
Adviser: Theodore Tavares

**Travis Lantry**
Electrical Engineering Technology  
**Ting-Yi Yang**
Mechanical Engineering Technology  
Design and Implementation of a Data Logger for a Cell Growth Incubator  
Advisers: Christopher LeBlanc, Theodore Tavares

**Nicholas Larochelle**
Mechanical Engineering Technology  
Design and Fabrication of a Universal Photogrammetry Reference Frame  
Adviser: Robert Arredondo

**Alexander Leger**
Mechanical Engineering Technology  
Turntable for Modeling Constantly Varying Wind Conditions  
Adviser: Theodore Tavares

**Benjamin Mason**
Electrical Engineering Technology  
Modification of Ultra-Wideband Ranging Demo  
Adviser: Christopher LeBlanc

**Jared Harbour**
Electrical Engineering Technology  
Design and Implementation of a Support Portal for Legacy Software  
Adviser: Christopher LeBlanc

**Michael Hazen**
Electrical Engineering Technology  
Controller Connector Redesign  
Adviser: Christopher LeBlanc

**Zachary Maynard**
Mechanical Engineering Technology  
**Joshua Walsh**
Mechanical Engineering Technology  
Precision CNC Contour Solution  
Adviser: Theodore Tavares

**Phillip Thai**
Electrical Engineering Technology  
Integration of Automated Environmental Data Loggers  
Adviser: Christopher LeBlanc

**Brennan Vermette**
Electrical Engineering Technology  
Automated Gas Exchange System Design to Measure Tree Stem Respiration  
Adviser: Andrew Ouimette

* Denotes students who presented at the virtual URC
The Naked Arts—Creativity Exposed!

Act III

Friday, April 24
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.

Audrey Eastman*
Biomedical Science, Theatre
Alice: A Story of Drug Addiction
Advisers: Assaf Benchetrit, Gay Nardone

Madison Marshall
English
Mill Town Poetry
Adviser: David Rivard

Nicholas Pichierri
English
Godspeed
Adviser: Lily Greenberg

Courtney Clairmont*
Human Development and Family Studies
Exploring Single Adults’ Relationship Histories: Past Experiences and Current Ideals
Adviser: Tyler Jamison

Erica Domeier*
Nursing
Nursing Students’ Experiences of Incivility in Undergraduate Nursing Programs and the Perceived Effects on Well-Being
Adviser: Alyssa O’Brien

Kacey Dutton*
Occupational Therapy
Patterns of Senior Social Connection
Adviser: Lou Ann Griswold

Faith Farnham
Mercedes McCoy
Nursing
Reflecting on How People Who Inject Drugs Describe Their Familial Relationships in Relation to Healthcare Experiences
Adviser: Kerry Nolte

Francis Gesel*
Kinesiology
Supplementation of a Leucine-Enriched Dairy Protein Blend: Effects on Plasma Amino Acids in Older Adults
Advisers: Dain LaRoche, Stuart Phillips, Dan Traylor

Brianna McGrath*
Nursing
Professional Nurse-Led Unjani Clinics: Empowering the Nurse Entrepreneur as a Primary Care Provider
Adviser: Gene Harkless

Serena Mueller*
Communication Sciences and Disorders
The Role of Socio-Economic Status on the Language Output of 3-6 Year Olds during a Naturalistic Museum Study
Adviser: Jill Thorson

Michael Newell*
Nursing
Evaluating the Outcomes of Incorporating LGBTQ+ Panels in Undergraduate Nursing Education
Adviser: Alyssa O’Brien

Jesse Smith
Kinesiology
The Relationship between Anaerobic Power, Blood Lactate Concentration, and Position in Division I Collegiate Ice Hockey Players
Adviser: Summer Cook

Benjamin Surman
Kinesiology
Kinematic Analysis of Patient and Therapist Agreement in Demonstrated Shoulder Exercises
Adviser: Dain LaRoche

Psychology Department
George M. Haslerud Undergraduate Research Conference

Friday, April 24
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.

Allison Cross*
Justice Studies, Psychology
Violent Video Game Playing and Aggression: Addressing Issues in the Research
Adviser: Ellen Cohn

Margaret Devlin*
Psychology
Autobiographical Memories of Work Transitions in Older Adults
Adviser: David Pillemer

Spencer Drakeunderkoffler
Ecogastronomy, Psychology
Ecotherapy: A Not-So-New Approach to Therapy
Adviser: Robert Eckstein
### Honors English Undergraduate Research Conference

**Friday, April 24**

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.

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<td>Lauren Kreinces*</td>
<td>Psychology</td>
<td>Exploring Memories within the Reminiscence Bump</td>
<td>Michelle Leichtman, David Pillemer</td>
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<td>Catherine McGrath*</td>
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<td>Boring Ideas: Exploring the Effects of Constraints on Creative Idea Generation</td>
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<td>Taylor Alcorn*</td>
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<td>Chronicing a Chronic Illness: What I Actually Learned in College</td>
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<td>Luisa Bomfim*</td>
<td>Communication Sciences and Disorders</td>
<td>What Did We Learn from Natural Disasters Like Hurricane Maria Which Allow Us to Improve Communication Systems for Deaf Individuals and Communities in Natural Disasters?</td>
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<td>Cameryn Boland</td>
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<td>Civil Unions (Pactes civiles de solidarité) in France</td>
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<td>Reproductive Rights in Latin America</td>
<td>Jairo Pulecio-Pulgarin</td>
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<td>Kyra D’entremont</td>
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<td>How Can We Make U.S. Schools Culturally Inclusive: A Puerto Rico Lab Exploration</td>
<td>Scott Weintraub</td>
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<td>Caitlin Durnbaugh</td>
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<td>Adolescents’ Experience of Hurricane Maria: A Humanities-Informed Participatory Youth Advocacy Project</td>
<td>Erin Sharp</td>
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* Denotes students who presented at the virtual URC
William Fraser
Management, Spanish
El Mar de Plastico: La Frontera de Tensiones Raciales
Adviser: Lori Hopkins

Alicia Marx
Communication Sciences and Disorders, Spanish
Chile
Adviser: Lori Hopkins

Sierra Mullin
Management, Spanish
Those Left Behind
Adviser: Lucia Montas

Rhea Neal
French, Spanish
The Power of Josephine Baker
Adviser: Amena Moinfar

Molly O’Shea*
Justice Studies, Psychology
Seeking Asylum in Spanish Territories: What is Fair and Just?
Adviser: Jairo Pulecio-Pulgarin

Christina Restrepo
Biomedical Science
Analyzing the Progression of Higher Education in Colombia
Adviser: Jairo Pulecio-Pulgarin

Carly Schewe
Kinesiology, Spanish
Spreading Security and Keeping Youth Safe in Central America through Activism
Adviser: Lori Hopkins

Gabrielle Scott*
English Literature
The Gnostic Milton: Tracing the Descent of the Son in Paradise Lost
Adviser: Paul Robertson

Brooke Seigars*
International Affairs, Spanish
Las Líderes en las Calles: Una investigación de Las Madres de Plaza de Mayo y #NiUnaMenos en Argentina
Adviser: Scott Weintraub

Hayden Stinson*
Linguistics, Spanish
Borges, Remediation, and the Dangers of New Media
Adviser: Scott Weintraub

Lindsey Wood
Justice Studies, Spanish
The Winnipeg: Collective Memory and the Importance of Collaboration
Adviser: Lori Hopkins

Cassandra Collimore
Biomedical Science
Milk Production and Methane Emissions in Jersey Cows Grazing Forage Canola
Adviser: Andre Brito

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

Emily Dunlop
Zoology
A Comparison of Welfare Considerations among Captive Animals
Adviser: Jessica Bolker

Anika Frink
Zoology
Impacts of Inappropriate Human Possession of Wildlife on the Animal’s Well-Being
Adviser: Janet Anderson

Lily Gilbert
Environmental Sciences
Small Mammal Reproductive Patterns during Masting Years in Northeastern Forests
Adviser: Rebecca Rowe

Ellen Gonzalez Rossi*
Zoology
Roost Site Preference of Long-Tailed Bats (Chalinolobus tuberculatus) in the Hūnua Ranges
Adviser: Carrie Hall

Ryan Landon*
Biology
Spatial and Temporal Feeding of Juvenile Alewife (Alosa pseudoharangus)
Advisers: James Haney, Nancy Leland

Yuri Makar*
Biomedical Science
Identification of STAT3 Target Genes That Promote Ovarian Cancer Metastasis
Adviser: Sarah Walker

* Denotes students who presented at the virtual URC
Saturdays, April 25

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.

**COLSA Undergraduate Research Conference**

**Poster Presentations**

**Mary Munley***
Marine, Estuarine and Freshwater Biology
*The Tolerance of Sublegal Florida Stone Crabs (Menippe mercenaria) during Prolonged Exposure to Hypoxia and Red Tide (Karenia brevis)*
Adviser: Philip Gravinese

**Griffin Nye**
**Michael Pellitteri**
Biomedical Science
*Multilocus Sequence Analysis of Global Streptococcus canis and Staphylococcus pseudintermedius Reveals Genetically Diverse and Frequently Recombining Lineages*
Adviser: Cheryl Marie Andam

**Ryan Puterbaugh**
Biochemistry, Molecular and Cellular Biology
*Effects of Mutation on Structure and Binding of the Intrinsically Disordered Protein PopZ*
Adviser: Krisztina Varga

**Adriana Radosavljevic***
**Tyler Silverwood***
Biochemistry, Molecular and Cellular Biology
*Global Examination of the Effects of Methamphetamine on Histone Post-Translational Modifications in the Rat Striatum*
Adviser: Feixia Chu

**Kaylan Williams**
Neuroscience and Behavior
*The Effect of Acute Bouts of Aerobic Exercise on Recognition Memory*
Advisers: Ronald Croce, Robert Ross

**Alexandra Awad**
Animal Science
*Histomorphology Approaches to Track Human Erythroid Cell Development Ex Vivo and Discovery of “C1ORF186” as an Essential Factor for RBC Production*
Adviser: Don Wojchowski

**John Ball***
**Jennifer Mydosh***
Biomedical Science
*Species Diversity of Methicillin-Resistant Staphylococcus from Domestic and Wildlife Animals*
Advisers: Cheryl Marie Andam, Robert Gibson, David Needle

**Daniel Banas***
Biomedical Science
*Effects of Two Diabetic Conditions on Inflammation Molecules Related to Atherogenesis*
Adviser: Thomas Foxall

**Keira Bartley***
**Raegan Lynch***
**Isabelle Todd***
Nutrition
*Assessing Nutrient Adequacy among Food-Insecure Students at the University of New Hampshire*
Adviser: Jesse Morrell

**Helene Bartsch***
Environmental Conservation and Sustainability
*How Does Coral Morphology Change along Ningaloo Reef, Western Australia?*
Adviser: Thomas Lee

**Draven Bishop***
Biomedical Science
*The Role of Phosphoprotein C1ORF150 during EPO-Dependent Erythroid Progenitor Cell Formation*
Adviser: Don Wojchowski

**Alexis Blanchard***
Wildlife and Conservation Biology

**Jenna Randall***
Biomedical Science
*Determining Plasma Methionine Concentrations for Lactating Holsteins Supplemented with 24g/d of Methionine from Smartamine M, AminoShure M, MetiPearl, or Timet*
Adviser: Nancy Whitehouse
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<td>Marissa Cartee*</td>
<td>Marine, Estuarine and Freshwater Biology</td>
<td>Linking Sponge Morphological Characteristics with Phylogeny</td>
<td>Adviser: David Plachetzki</td>
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<tr>
<td>Marissa Cartee*</td>
<td>Marine, Estuarine and Freshwater Biology</td>
<td>Microplastics in Carcinus maenas and Mytilus edulis within the Gulf of Maine</td>
<td>Adviser: Bonnie Brown</td>
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<td>Alyson Caruso*</td>
<td>Statistics</td>
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<td>Jeanne Cassidy*</td>
<td>Biomedical Science</td>
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<tr>
<td>Carissa Charbonneau*</td>
<td>Wildlife and Conservation Biology</td>
<td>Does Dimorphism Predict Life History Characteristics in Australian Passeriformes?</td>
<td>Adviser: Leslie Curren</td>
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<tr>
<td>Nick Charron*</td>
<td>Zoology</td>
<td>The Catbird’s Meow: An Acoustic Analysis of Gray Catbird (Dumetella carolinensis) Vocalizations</td>
<td>Adviser: James Taylor</td>
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<td>Sara Connell*</td>
<td>Biomedical Science</td>
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<td>Alexus Day*</td>
<td>Marine, Estuarine and Freshwater Biology</td>
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<td>Maya-Grace Ginsberg*</td>
<td>Zoology</td>
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<td>Tamara Hathorn*</td>
<td>Biomedical Science</td>
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<td>Andrea Cote*</td>
<td>Biochemistry, Molecular and Cellular Biology</td>
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<td>Felicia Williams*</td>
<td>Biomedical Science</td>
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<td>Annie Cotter*</td>
<td>Genetics</td>
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<tr>
<td>Emily D’Antonio*</td>
<td>Nutrition</td>
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Briannah DeLorme*  
Tiana DiBenedetto*  
Sophie Kenny*  
Madeline Quigley*  
Nutrition  
Comparison of Relative Fat Mass  
Equation and Body Mass Index (BMI)  
in Predicting Body Composition of Male  
Collegiate Athletes  
Adviser: Kevin Pietro

Gianna DeMarco*  
Zoology  
The Effect of Predator Cues on Black  
Garden Ants’ Worker Task Efficiency  
Adviser: Leslie Curren

Alexa DeMember*  
Genetics  
The Effects of White-Nose Syndrome on  
Bat Wing Microbiome  
Adviser: Matthew MacManes

Diane DeVries*  
Environmental Sciences  
Comparison of Methane and Nitrous  
Oxide Emissions along a Nitrate Gradient  
in the Ipswich River, Massachusetts  
Adviser: Ruth Varner

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

Samantha Dionne*  
Biomedical Science  
Cognitive Abilities of Caribbean Hermit  
Crabs in Navigating a Known Location  
Adviser: Leslie Curren

Catherine Doheny  
Sustainable Agriculture and Food Systems  
Nutrient Uptake and Physiology of Lettuce  
in Aquaponic Systems, Determined by  
Sodium and Potassium Concentrations  
Adviser: Todd Guerdat

Devyn Enwright*  
Biomedical Science  
Microbiology Culture Results from 156  
Sheep and 204 Goats at the NHDVL  
from 2012-2019  
Adviser: David Needle

Molly Erickson  
Owen Hamel  
Zackary Vajda  
Tiffany Winter  
Marine, Estuarine and Freshwater Biology  
Exploration into Efficient and Inexpensive  
Methods of Aquaculture for the Green Sea  
Urchin, Strongylocentrotus droebachiensis  
Adviser: Larry Harris

Thomas Farrar*  
Biomedical Science  
Species-Specific Patterns of Antibacterial  
Resistance and Genomic Diversity among  
Cryptic Escherichia Species  
Adviser: Cheryl Marie Andam

Travis Fischer  
Biochemistry, Molecular and  
Cellular Biology  
GLI3 as a Mediator of Inflammation  
Adviser: Sherine Elsawa

Anika Frink*  
Zoology  
Impacts of Inappropriate Human  
Possession of Wildlife on the Animal’s  
Well-Being  
Adviser: Janet Anderson

Grace Gaucher  
Marine, Estuarine and Freshwater Biology  
Ryan Landon*  
Biology  
Investigation of Extraction Techniques for  
Microcystins and BMAA in Muscle  
Tissue of Fish  
Advisers: James Haney, Nancy Leland

Grace Gaucher  
Marine, Estuarine and Freshwater Biology  
Ryan Landon*  
Biology  
Use of Stable Isotopes to Determine Shifts  
in the Feeding Habits of Juvenile Alewife  
(Alosa pseudoharangus)  
Advisers: James Haney, Nancy Leland

Alexia Gianoulis*  
Biomedical Science  
Dietary Energy Source and Rumen-  
Protected Amino Acids: Effects on  
Milk Production, Plasma Amino Acids  
Concentration, and Methane Emissions in  
Dairy Cows  
Advisers: Andre Brito, Yu Zang

Lily Gilbert  
Environmental Sciences  
Small Mammal Reproductive  
Patterns during Masting Years in  
Northeastern Forests  
Adviser: Rebecca Rowe

Ian Gliser*  
Victoria Madore*  
Neuroscience and Behavior  
The Effect of Stress on Individual Demand  
for Alcohol  
Adviser: Sergios Charntikov

Ellen Gonzalez Rossi*  
Zoology  
Roost Site Preference of Long-Tailed Bats  
(Chalinolobus tuberculatus) in the  
Hūnua Ranges  
Adviser: Carrie Hall

Kendall Gray  
Environmental Conservation and  
Sustainability  
Analyzing Waste Management Practices  
within New Hampshire Public Schools  
Adviser: Maggie Morrison

Grace Griffin  
Psychology  
Two Hearts Beating as One? Testing  
for Covariation in Horse-Rider  
Cardiac Rhythms  
Adviser: Daniel Howard

Jennifer Halloran*  
Biochemistry, Molecular and  
Cellular Biology  
Optimizing the Feeding Protocol for Hydra  
Adviser: David Plachetzki

Molly Hanlon*  
Biomedical Science  
Trellis Systems Modify Grape’s Health-  
Beneficial Properties  
Adviser: Marta Lima

Jackson Hastings*  
Genetics  
Analysis of a Morphological Clinal Zone  
of the Poison Frog Ranitomeya imitator to  
Identify Genome-Wide Differentiation  
Adviser: Matthew MacManes

Jessica Hodgkins*  
Biomedical Science  
Identification of the Virulence Factors of  
Serratia sp. SCBI  
Adviser: Louis Tisa
Owen Kanter*
Wildlife and Conservation Biology
The Influence of Road Density and Land Cover on Population Demographics of Common Snapping Turtles
Adviser: Peter Pekins

Benjamin Kaphan*
Biochemistry, Molecular and Cellular Biology
Using CRISPR to Generate Novel Mutants in Arabidopsis thaliana
Adviser: Estelle Hrabak

Patrick Kaplan*
Animal Science

Hannah Robertson*
Biomedical Science
Effects of Supplemental Mycotoxin Deactivator on Lactation Performance of Holstein Cows Fed Natural Mixed Mycotoxin Contaminated Feed
Adviser: Nancy Whitehouse

Benjamin Kerns*
Animal Science

Jacqueline Klombers*
Ciara McCarter*
Biological Science
How Group Work Impacts Students’ Quantitative Biology Self-Efficacy
Advisers: Melissa Aikens, Alexander Kulacki

Troy LaPolice*
Biological Science
The Effect of Transcriptome Assembly Quality on Phylogenetic Relationships
Adviser: Matthew MacManes

Jason Lam*
Bioengineering
The Role of STAT3 in Ovarian Cancer Sphere Formers
Adviser: Sarah Walker

Ryan Landon*
Biological Science
Spatial and Temporal Feeding of Juvenile Alewife (Alosa pseudoharangus)
Advisers: James Haney, Nancy Leland

Abigail Lemmon*
Marine, Estuarine and Freshwater Biology
Effects of the Biomedical Bleeding Process on the Mating Habits of the American Horseshoe Crab, Limulus polyphemus
Adviser: Winsor Watson

Rebecca Lisowski*
Biomedical Science
Assessing the Relationship between Salivary Cortisol, Perceived Levels of Test Anxiety, and Test Performance
Adviser: Adele Marone

Sarah Lunn*
Biology
Selection on Pollinator Efficiency and Attractiveness Traits in Impatiens capensis
Adviser: Melissa Aikens

Elizabeth Mackenzie*
Zoology
How Life-History Traits Predict Life Span and Post-Fledging Mortality in the Order Passeriformes
Adviser: Leslie Curren

Yuri Makar*
David Walker*
Biomedical Science
Identification of STAT3 Target Genes That Promote Ovarian Cancer Metastasis
Adviser: Sarah Walker

Elizabeth Martin*
Environmental Sciences
Using Estuarine Microbial Ecology to Mitigate Human Health Implications Concerning Oysters in Great Bay, NH
Adviser: Stephen Jones

Katherine Mehalek
Marine, Estuarine and Freshwater Biology
Tissue-Specific Bioaccumulation of the Neurotoxin BMAA in Fish and Amphibians
Advisers: James Haney, Katherine Low

Kelsey Mercurio*
Biochemistry, Molecular and Cellular Biology, Sustainable Agriculture and Food Systems
Frankia and Friends: Roles of Various Nodule Inhabitants in the Actinorhizal Symbiosis
Adviser: Louis Tisa

Gabriela Misiewicz
Bioengineering
Analyzing the Roles of STAT3 and STAT5 in Breast Cancer
Adviser: Sarah Walker

Acadia Momm-White*
McKenna Wells*
Environmental Sciences
Assessment of Recycling Behavior on UNH and ECSU Campuses
Adviser: Patricia Jarema

Mary Munley*
Marine, Estuarine and Freshwater Biology
The Tolerance of Sublegal Florida Stone Crabs (Menippe mercenaria) during Prolonged Exposure to Hypoxia and Red Tide (Karenia brevis)
Adviser: Philip Gravinese

Kayli Neil*
Biomedical Science
Inhibiting STAT 3 with Atovaquone in Ovarian Cancer
Adviser: Sarah Walker

Griffin Nye*
Michael Pellitteri*
Biomedical Science
Multilocus Sequence Analysis of Global Streptococcus canis and Staphylococcus pseudintermedius Reveals Genetically Diverse and Frequently Recombining Lineages
Adviser: Cheryl Marie Andam

Jenna O’del*
Wildlife and Conservation Biology
The Influence of Road Density and Land Cover on Population Demographics of Common Snapping Turtles
Adviser: Peter Pekins

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Biochemistry, Molecular and Cellular Biology, Sustainable Agriculture and Food Systems
Frankia and Friends: Roles of Various Nodule Inhabitants in the Actinorhizal Symbiosis
Adviser: Louis Tisa
Vincent Pagano*
- Environmental Conservation and Sustainability
- Determining Viability of Unmanned Aerial Systems (UAS) to Map Forest Edge Influence in New England Forest Communities
  Adviser: Russell Congalton

Abigail Palin*
- Biochemistry, Molecular and Cellular Biology
- Effect of Fetal Bovine Serum (FBS) on Expression of Cellular Communication Network Factor 1 (CCN1) in Bovine Granulosa Cells
  Adviser: Paul Tsang

Ji Yoon Park*
- Animal Science
- Diagnostic Findings of Wild Moose Submission to NHVDL from 2017-2019
  Advisers: Colleen Monahan, David Needle, Inga Sidor

Amanda Patev*
- Biomedical Science
- Comprehensive Diagnostic Results of Poultry Submissions to NHVDL from 2008–2019
  Advisers: Colleen Monahan, David Needle

Trey Patno*
- Biochemistry, Molecular and Cellular Biology
- Does Treatment with Angiogenic Factors (VEGFA and FGF2) Increase Expression of Hypoxia-Inducible 1 alpha (HIF1α) in Bovine Steroidogenic Luteal Cells?
  Adviser: Paul Tsang

Elizabeth Pederson*
- Environmental Sciences
- Using Leaf Chlorophyll and Nitrogen Concentrations of Mixed Species to Evaluate Forest Productivity in New Hampshire Temperate Forests
  Adviser: Andrew Ouimette

Savannah Pirello-Spraggress
- Wildlife and Conservation Biology
- Fear and Social Learning in the Land Snail Bulimulus guadalupensis
  Adviser: Leslie Curren

Sarah Pogany*
- Nutrition
- Changes in Bone Health of Female College Students
  Adviser: Gretchen Arnold

Alexandra Powers*
- Biology
- Immigrant Male Tenure as a Predictor of Spotted Hyena Reproductive Success
  Adviser: Leslie Curren

Audrey Prior*
- Community and Environmental Planning
- An Evaluation of Master Plan Topics at Three Scales of Planning in New Hampshire
  Adviser: Mary Friedman

Ryan Puterbaugh*
- Biochemistry, Molecular and Cellular Biology
- Effects of Mutation on Structure and Binding of the Intrinsically Disordered Protein PopZ
  Adviser: Krisztina Varga

Adriana Radosavljevic*
- Tyler Silverwood*
- Biochemistry, Molecular and Cellular Biology
- Global Examination of the Effects of Methamphetamine on Histone Post-Translational Modifications in the Rat Striatum
  Adviser: Feixia Chu

Emily Ray*
- Marine, Estuarine and Freshwater Biology
- Neuroscience and Behavior
- Novel Drug Decreases Activity of Wnt Signaling Pathway in Colon Cancer Cells
  Adviser: Bruce Zetter

Aleasha Reed
- Neuroscience and Behavior
- Novel Drug Decreases Activity of Wnt Signaling Pathway in Colon Cancer Cells
  Adviser: Bruce Zetter

Brittany Robinson*
- Environmental Sciences
- Identifying Spatial Distributions and Bat Species Richness in a Southern Plains Tallgrass Prairie Ecosystem
  Adviser: Daniel Howard

Caterina Roman*
- Sustainable Agriculture and Food Systems
- The Effects of Grafting Melon Crops to Interspecific Squash Rootstocks
  Adviser: J Brent Loy

Natalie Roth*
- Animal Science
- Determining Plasma Lysine Concentrations for Lactating Holsteins Supplemented with 60 g/d of Lysine from a RP-Lys Prototype Using the In Vivo Plasma Dose-Response Method
  Adviser: Nancy Whitehouse

Fern Schrader*
- Biochemistry, Molecular and Cellular Biology
- Differentiation of 3t3-L1 Cells into Adipocytes and the Associated Histone Modifications Analysed via Mass Spectrometry
  Adviser: Feixia Chu

Brennan Senecal*
- Genetics
- Expression Levels May Explain Phenotypic Differences between Arabidopsis Mutants
  Advisers: Estelle Hrabak, Megan Thompson

Alissa Shea*
- Environmental Sciences
- What Killed Luna? Biomagnification of BMAA and Microcystins as a Possible Cause of Common Loon Death in Province Lake, NH
  Adviser: James Haney

Michael Slagle*
- Community and Environmental Planning, Sustainability
- Innovative Tools to Bring Workforce Housing to Durham, NH
  Adviser: Mary Friedman

Olivia Smith*
- Marine, Estuarine and Freshwater Biology
- The Impact of Atlantic Butterfish (Pepirius triacanthus) in the Diet of Common Tern Chicks (Sterna hirundo) in the Gulf of Maine
  Advisers: Elizabeth Craig, Gregg Moore
Carter Snay*
Environmental Sciences
Sampling Ebullitive Methane Flux from Freshwater Streams: What Worked and What Needs Adjustments
Advisers: Andrew Robison, Wilfred Wollheim

Ryan Spelman*
Biology
Evaluating the Potential of Chitosan for Suppression of Gray Mold Caused by B. cinerea on Floriculture Crops
Adviser: Anissa Poleatewich

Hannah Stewart*
Environmental Conservation and Sustainability, Environmental and Resource Economics
Exploring the Properties UAS for the Assessment of Ecological Processes and Its Resulting Social Impact
Adviser: Russell Congalton

Andrew Sullivan*
Marine, Estuarine and Freshwater Biology
Speciation of the Galápagos Hagfish
Adviser: David Plachetzki

Jessica Tremblay*
Zoology
Assessing How the Diversity of Groups Affects the Frequency of Vigilant Displays in Birds
Adviser: Leslie Curren

Bonnie Turek*
Environmental Conservation and Sustainability
Assessing Topographic Mapping Accuracy Using Aerial Drone with Terrestrial and Submerged Aquatic Ground Control Points
Adviser: Kevin Gardner

Tyler Wade*
Biomedical Science
“C1ORF150”: A Novel Regulator of JAK2 Kinase, and Candidate Tumor Suppressor in Human Blood Cell Progenitors
Adviser: Don Wojchowski

Natalie White*
Environmental Sciences
Assessing Salt Marsh Resilience at Moody Point, Great Bay Estuary, NH
Adviser: Gregg Moore

Benjamin Wymer*
Wildlife and Conservation Biology
Habitat Associations of Small Mammals and Their Impact on Forest Regeneration in Northern New Hampshire
Advisers: Rebecca Rowe, Ryan Stephens

Madeline Young*
Biology
Comparison of Two Soybean Varieties with Contrasting Susceptibility to Iron Deficiency Grown with and without Chitosan Supplementation
Adviser: Marta Lima

Rachel Zampini*
Nutrition
Mindful Eating and Metabolic Syndrome among UNH College Students
Adviser: Maggie Begis

**Grand Challenge: Automation**

**Team: Fire Starters**
Adviser: Danielle Beegan
Christine Aboujaoude*
Hayden Blood*
Daniel Clark*
Brennan Dwyer*
Nicholas Smith*
Nathan Sullivan*
Caleb Woodin*
Undeclared

**Team: Hang 10**
Adviser: Allison MacPhee
Carson Albright*
Joseph Auger*
Cole Cassidy*
Carola Davis*
Ava Dobbelaer*
Brendan Gaffney*
Adam Gray*
Rachel Hollywood*
Michael Judd*
Jacob Rich*
Cameron Rocheleau*
Anthony Syhabout*
Ashley York*
Business Administration
Austin Edwards*
Jack Tevault
Emily Yopchick*
Undeclared

**Peter T. Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC**

**Poster Presentations & Oral Presentations**

**Saturday, April 25**
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.”


**Team: New Train**
Adviser: Robert Andreasse

Kindyl Alfonso*
Ryan Burke*
Sarah Clark
Grace Lemerise*
Olivia McCarron*
Benjamin McLafferty*
Michael Santini*
Kyle Simpson*
Gunner Tache*
Sebastian Trumbull*
Henry Vaughan*
Jay Wallace*
Kobe Zimmer*
Business Administration
Kelley Burzlafl *
Kiana Cheney*
Lisa DeGeorge*
John Ginand*
Eli Witham*
Undeclared

**Team: Money Twenty**
Adviser: Erin Gralton

Winsor Bean*
Kendyl Drum*
Brendan Kenney*
Krysta Mack*
Jill Mattucci*
Mia McAuliffe*
Joseph Moore*
Undeclared
Stoughton Bell*
Alex Clarke*
Thomas Constantino*
Alessandra Cutone*
Griffin Delaney*
Garrett Henderson*
Adam LePage*
Camdyn Loring*
Jordan Moyer*
Mckenna Wilson*
Business Administration

**Team: The Flame-ingos**
Adviser: Tanner Williams

Brendon Anderson*
Elise Bender*
Brooklyn Brackett*
Justin DiTomaso*
Emerson Graham*
Christopher Johnson*
Alex Kaminski*
Jui Liao*
Matthew McDonough*
Alyssa Norris*
Luke Pashoian*
Benjamin Psaledas*
Nicholas Rainforth*
Max Richard*
Madison Shatzer*
Business Administration
Paige Bohlig*
Brendon Anderson*
Jacob Loftin*
Anna Pollak*
Devin Ralph*
Undeclared

**Team: High Five**
Adviser: Alana Hovey

Tucker Banios
Nicholas Baudo*
Ashlyn Brown*
Aiden Brown*
Katie DuBois*
Wyatt Hill*
Robert Horne*
Niall Kelly*
Ryan Selman*
Benjamin Stephens*
Isabella Walden*
Business Administration
Dehla Beaudry*
Hospitality Management
John Brensahan*
Autumn Delorey*
Tyler Dickinson*
Nathan Edwards*
Undeclared

**Team: Grand Challenge:**

**Community Health**

**Team: Fired Up**
Adviser: Nicole Marzulli

Nicholas Alborghetti*
Jeffrey Andon*
Brendan Andros*
Isaac Blanchette*
Ian Bryant*
Jack Caraccio*
Connor Cherry*
Hannah Colley*
Anders Dachsteiner*
Kallie Fisher*
William Gaughan*
Lena Huang*
Lila Khalal*
Madison Lamper*
Reid Signet*
Vanessa Smith*
Noah Stevens*
Business Administration
Brynn Lambroff*
Joshua Rumrill*
Undeclared

**Team: One-Hit Wonders**
Adviser: Jill Conry

Andrew Arone*
Ethan Eames*
James Randazzo*
Thomas Stimson*
Lea Trainor*
Undeclared
Peter Bannon*
Liam Bennett*
Tierney Creighton*
Robert Hardy*
Virginia Kozikowski*
Noor Malik*
Aleta Mathers*
Madison Montgomery*
Kilian O’Connell*
Mason Patten*
Brendan Pearl*
Jake Regan*
Business Administration
Team: Supreme 13
Adviser: Alexandra Lipinski
Brendon Bussiere*
Joseph Dupree*
Erik Eisen*
William Foley
Emma Kearing*
Lucas Lanagan*
Ryan Mann*
Rebecca Mitlin*
David Moss*
Edward Mrozowski*
Maggie Robinson*
Nicholas Weidman*
Jack Wixson*

Team: Live Three or Die
Adviser: Max Polay
Grace Cannon*
Victoria Carini*
Clay Courtmanche*
Christian DiPersio*
Heather Doyon*
Jack Hogan*
Alex Klosen*
Nicole Massa*
Richard Mingolelli*
Clara Richards*
Mary Van Ness Uitti*

Team: The New Hampshire 29ers
Adviser: Jake Rappaport
James Bochiechio*
McKenzie Callaghan*
Hunter Ferrera*
Aislinn Ford*
Robert Griffin*
Reynaldo Idieu*
Sydney Kennedy*
Macklin Lansbury*
Will Naughton*
Aidan O’Hern*
Nicholas Qualey*
Chase Stevenson*

Team: In It 2 Win It
Adviser: Abigail Chapman
Caleb Bell*
Joseph Caswell*
Hailly Felgate*
Dillon Fiore*
Melissa Girondin*
Zhiwei He*
Drew Hudson*
Michael Keefe*
Miranda Lau Quan*
Chris Markunas*
Jack O’Donnell
Jacqueline Ody niec*
Emily Sergeant*
Breanna Smith*
Isabella Spagnuolo*

Team: Paul’s Red Hot
Adviser: Kevin Murphy
Domenic DiZillo
Brandon Elias
Cameron Frizzell*
Eric Gage*
Maclean Hanley*
Jared Knight
Blake Murray*
Anna Schriefer*
Alina Wright
Analytical Economics
Sara Dube*
Tim Hagerott*
Abby Keans*
James Marsh*
Nicholas Simone
Whitney Wiley*
Business Administration
Martin Keene*
Maev Parnell*

Team: Paul So Hard
Adviser: Valerie Mattice
Million Beaulieu
Samuel Carlisle*
Warner Casey*
Jack Gillis*
Alexander Haynes*
Garrett Lambert*
Alison Novack*
Jakob Ober*
Jonathan Rizzitano*
Jared Rizzo*
Annabelle Stott*
Michael Trager*
Sydney Weisensee*
Catherine Yorke*
Business Administration
Joshua Duntley*
Ashley Hettrich*
Alyssa Ventura*

Grand Challenge: Fast Fashion

Team: The New Hampshire 29ers
Adviser: Jake Rappaport
James Bochiechio*
McKenzie Callaghan*
Hunter Ferrera*
Aislinn Ford*
Robert Griffin*
Reynaldo Idieu*
Sydney Kennedy*
Macklin Lansbury*
Will Naughton*
Aidan O’Hern*
Nicholas Qualey*
Chase Stevenson*

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Brandon Elias
Cameron Frizzell*
Eric Gage*
Maclean Hanley*
Jared Knight
Blake Murray*
Anna Schriefer*
Alina Wright
Analytical Economics
Sara Dube*
Tim Hagerott*
Abby Keans*
James Marsh*
Nicholas Simone
Whitney Wiley*
Business Administration
Martin Keene*
Maev Parnell*

Team: In It 2 Win It
Adviser: Abigail Chapman
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Hailly Felgate*
Dillon Fiore*
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Zhiwei He*
Drew Hudson*
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Chris Markunas*
Jack O’Donnell
Jacqueline Ody niec*
Emily Sergeant*
Breanna Smith*
Isabella Spagnuolo*

Business Administration
Kathryn Edgar*
Jake Sanclemente*

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Adviser: Alexandra Lipinski
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Erik Eisen*
William Foley
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Ryan Mann*
Rebecca Mitlin*
David Moss*
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Maggie Robinson*
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Jack Wixson*

Team: Live Three or Die
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Alex Klosen*
Nicole Massa*
Richard Mingolelli*
Clara Richards*
Mary Van Ness Uitti*
Business Administration
Matthew Derby*
John Gallagher*
Maxwell Rose*

Team: The New Hampshire 29ers
Adviser: Jake Rappaport
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McKenzie Callaghan*
Hunter Ferrera*
Aislinn Ford*
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Reynaldo Idieu*
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Nicholas Qualey*
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**Ann Manchester Kelley Nursing Inquiry Day**

**Wednesday, April 29**
This event features scholarly presentations by undergraduate Honors students and Graduate Program students in Nursing.

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**Peter T. Paul College of Business and Economics**

**Paul J. Holloway Prize Innovation to Market Competition**

**Championship Round**

**Wednesday, May 6**
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 virtual 2020 URC happen.

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The Joan and James Leitzel Center for Mathematics, Science, and Engineering Education
The UNH InterOperability Laboratory (UNH-IOL)
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ALL RESEARCH.
ALL MAJORS.
ALL UNDERGRADS.