Welcome to the UNH Undergraduate Research Conference

Welcome to the 25th annual Undergraduate Research Conference, one of UNH’s most exciting traditions and an impressive showcase of our students’ ingenuity, talent, and accomplishments.

Launched as a university-wide effort in the spring of 2000, the URC has grown steadily to become one of the largest and most diverse gatherings of undergraduate researchers in the nation. This year, more than 1,600 students will present their research, scholarship, and creative works across our Durham and Manchester campuses, representing academic achievements in every college.

In addition to highlighting our students’ academic excellence, the URC reflects the dedication and support of hundreds of faculty mentors, whose research and teaching expertise are the hallmarks of a great UNH education. As students work with faculty to develop projects — supported by staff, alumni, and research partners — they also build important life skills in problem solving, project management, and teamwork. All are qualities that will serve them well as they graduate and pursue successful careers.

Whether your visit includes a poster session, an oral presentation, or a hands-on demonstration, we are confident that you will be impressed by the participants’ knowledge and understanding. Thank you for supporting our students and New Hampshire’s flagship public research university.

Best regards,

James W. Dean Jr.
President

Wayne Jones
Provost and Vice President for Academic Affairs
Welcome to the 25th annual celebration of academic excellence at the University of New Hampshire! The URC embodies UNH’s mission to offer students a discovery-based education by encouraging inquiry, exploration, and deeper immersion in their fields of study. This year, more than 1,600 students — mentored by over 360 faculty members and other research advisers — will present their research and scholarship at 20+ URC events on the Durham and Manchester campuses, including symposia, panel and poster sessions, performances, and prize competitions. Student presenters represent disciplines from across the academic spectrum, reflecting the breadth and depth of undergraduate research and scholarship at UNH.

At the Hamel Center for Undergraduate Research, our core mission is to provide resources and financial support for the research, scholarly, and creative projects of UNH students. Our additional role as the administrative home of the URC enables us to broaden our commitment to supporting 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.

In addition to recognizing our students’ achievements, 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 us in celebrating 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

Rachel Nott
Administrative Coordinator,
Hamel Center for Undergraduate Research

Inquiry journal of undergraduate research
In addition to attending one or more URC events, you can read more about our student researchers in Inquiry, UNH’s online journal of undergraduate research. Published online biannually by the Hamel Center for Undergraduate Research, and celebrating its 20th anniversary of continuous publication this year, Inquiry features research articles, briefs, and commentaries authored by undergraduates. You may also read more in the Hamel Center’s Undergraduate Research Blog.
Calendar of Events

Friday, April 12 Events
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition (Bud Albin Challenge Round)

Friday, April 19 Events
Senior B.A. & B.F.A. Exhibition and Preview Reception

Tuesday, April 23 Events
UNH Manchester URC Oral Presentations

Wednesday, April 24 Events
Interdisciplinary Science and Engineering (ISE) Symposium
University-Wide Undergraduate Sustainability Research Symposium
  Oral Presentations
  Poster Presentations
The Naked Arts—Creativity Exposed! (Act I)
UNH Manchester URC Poster Presentations

Thursday, April 25 Events
UNH Manchester URC Cinema Arts Day
History Department URC
The Naked Arts—Creativity Exposed! (Act II)

Friday, April 26 Events
UNH Manchester URC, Engineering Technology Senior Capstone Robotics Presentations
All Colleges Undergraduate Research Symposium Welcome Breakfast
All Colleges Undergraduate Research Symposium
  Oral Presentations, Session A
  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
  Oral Session I
  Poster Session III
The Naked Arts—Creativity Exposed! (Act III)
Psychology Department George M. Haslerud URC
College of Health and Human Services (CHHS) Grimes Award Competition
Honors English URC
Philosophy Department URC

Saturday, April 27 Events
Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC
UNH Manchester URC Engineering Technology Robotics Competition
College of Life Sciences and Agriculture (COLSA) URC
  Oral Presentations
  Poster Presentations

Wednesday, May 8 Events
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition (Championship Round)

Additional Features
Acknowledgments
Student Index
FRIDAY, APRIL 12
1–4 p.m. and 4–8 p.m.
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition, Bud Albin Challenge Round
Paul College (4)

FRIDAY, APRIL 19
6–8 p.m.
Senior B.A. & B.F.A. Exhibition and Preview Reception
The exhibition will remain open until May 13.
Paul Creative Arts Center, Museum of Art (5)

TUESDAY, APRIL 23
10–11 a.m.
UNH Manchester URC, Oral Presentations
88 Commercial Street, Screening Room 456, Manchester

WEDNESDAY, APRIL 24
8 a.m.–5:30 p.m.
Interdisciplinary Science and Engineering (ISE) Symposium
Whittemore Center Arena (7)

THURSDAY, APRIL 25
10 a.m.–12 p.m.
UNH Manchester URC, Cinema Arts Day
88 Commercial Street, Screening Room 456, Manchester

12–3 p.m.
History Department URC
Memorial Union Building, Rooms 115, 233, and 237 (3)

12:40–2 p.m.
The Naked Arts – Creativity Exposed! (Act II)
Paul Creative Arts Center, Museum of Art (5)

FRIDAY, APRIL 26
8 a.m.–1 p.m.
UNH Manchester URC, Engineering Technology Senior Capstone Robotics Presentations
88 Commercial Street, MPR Room 201, Manchester

9 a.m.–1:25 p.m.
All Colleges Undergraduate Research Symposium
Memorial Union Building, Granite State Room and various rooms (3)

9 a.m.–2:30 p.m.
Paul College URC
Paul College (4)

12:15–1:25 p.m.
The Naked Arts – Creativity Exposed! (Act III)
Memorial Union Building, Theatre I (3)

1–3 p.m.
Psychology Department
George M. Haslerud URC
McConnell Hall, Room 220 (2)

SATURDAY, APRIL 27
8 a.m.–3 p.m.
Paul College First-Year Innovation and Research Experience (FIRE) URC
Paul College (4)

8 a.m.–3 p.m.
UNH Manchester URC, Engineering Technology Robotics Competition
88 Commercial Street, MPR Room 201, Manchester

8:15 a.m.–12 p.m.
College of Life Sciences and Agriculture (COLSA) URC
Memorial Union Building, Granite State Room and MUB Theatre II (3)

WEDNESDAY, MAY 8
1–5 p.m.
Paul College of Business and Economics
Paul J. Holloway Prize Innovation to Market Competition, Championship Round
Paul College (4)
BUILDING KEY

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

UNH Manchester
88 Commercial Street
Manchester, N.H.

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

Bud Albin Challenge Round
Friday, April 12
1–4 p.m. and 4–8 p.m.
Paul College

The Bud Albin Challenge acts as the Semi-Final Round of the Holloway Prize Innovation to Market Competition. Twenty teams present their business concepts to a panel of industry judges. From here, six will be selected to move on to the Championship Round.

Senior B.A. & B.F.A. Exhibition and Preview Reception

Friday, April 19
6–8 p.m.
Paul Creative Arts Center, Museum of Art

This annual show celebrates the achievements of graduating art students from the UNH Department of Art and Art History.

Adviser: Benjamin Cariens

Alexandra Avakova
Fine Arts
Cowabunga!

Eli Bryant
Fine Arts
The Garden of Eli

Se Choi
Fine Arts
Pilgrimage

Isabella Hart
Ecogastronomy, Fine Arts
Fearless Flukes

Madison Hoppler
Fine Arts
Spiraling Terrarium

Erin McKeen
Fine Arts
A World Outside

Dana Morrison
Fine Arts
Photographing a Path to Self-Compassion

Ember Nevins
Fine Arts, Women’s and Gender Studies
Your Body Is a Wonderland/Your Body Is a Wasteland

Jada Stietzel
Fine Arts, Psychology
Ripples of the Mind

UNH Manchester Undergraduate Research Conference

Oral Presentations

Tuesday, April 23
10–11 a.m.
88 Commercial St., Screening Room 456, Manchester

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

Meghan Bolton
Stephanie Slaybe
Public Service and Nonprofit Leadership

Delaney Cote
Public Service and Nonprofit Leadership, Women’s and Gender Studies

CPS Manchester: A Deeper Look into Undergraduate Student Health and Wellbeing
Adviser: Lisa Enright

Colleen Williams
Educational Studies, Fine Arts
Moon on Fire

Seth Wyatt
Art: Studio Art
Observation Deck
Interdisciplinary Science & Engineering (ISE) Symposium

Poster Presentations

**Wednesday, April 24**
8 a.m.–5:30 p.m.
Whittemore Center Arena

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

**Biology**

Group Leader: Vicki Jeffers

Olivia Smith
Biology
*Enhancing the Microbial Examination of Space Hardware through the Development of New Protocols and Evaluating the Efficiency of a Standard Planetary Protection Assay*
Adviser: Easton White

Katherine Veronneau
*Investigation of Potential STAT3 Inhibitors in Triple Negative Breast Cancer*
Adviser: Sarah Walker

**Chemical Engineering and Bioengineering**

Group Leader: Nan Yi

Andrea Bartus
Bioengineering
*Microgel Production for Precision 3D Bioprinting Applications*
Adviser: Nan Yi

Jaxon Boudreau
Chemical Engineering
*Waste to Wealth: Carbon Dioxide Conversion to Fuels*
Adviser: Nan Yi

Sydney Crotteau
Biochemistry, Molecular and Cellular Biology
*Electrochemical Detection of L-Arginine via Cyclodextrin Mediated Platform*
Adviser: Jeffrey Halpern

Kira Gusciora
Chemical Engineering
*Spying on Metal Complexes: Spectral Features of Ion-Specific Binding Motifs*
Adviser: Sean Edington

Evan Kennedy
Bioengineering
*Leveraging Phase Separation to Engineer Microstructures and Cell Encapsulation in Biomaterials*
Adviser: Linqing Li

Sydney Lane
Trey Loving
Caitlin Veneto
Colin Webb
Bioengineering
*Integrating Decellularized Spinach Leaves with Microfluidics to Model Angiogenesis*
Adviser: Linqing Li

Jack Reynolds
Bioengineering
*Production of Small Scale Microgels for Applications in Cell Encapsulation*
Adviser: Kyung Jae Jeong

Jenifer Sidhwa
Biochemistry, Molecular and Cellular Biology
*The Effect of Phase-Separated Microstructures on Cell Migration in 3D Dextran Hydrogel*
Adviser: Linqing Li

Will Steere
Chemical Engineering
*Titanium Dioxide (TiO2): Anatase-Rutile Phase Transition*
Adviser: Nan Yi

Colin Webb
Bioengineering
*Temporal Presentation of RGD Regulates Cell Behavior in 3D*
Adviser: Linqing Li

**Chemistry — Senior Thesis**

Group Leader: Stacey Hughes

Quinton Conlin
Chemistry
*Precision and Accuracy of Automatic and Manual Micropipettes*
Adviser: Anyin Li

Jack Croteau
Chemistry
*Measuring Surface Tensions for Solutions in ESI Mass Spectrometry*
Adviser: Anyin Li

Tom Diphilippo
Chemistry
*Quantification of Hydroxyl Groups on the Surface of Polymer Nanoparticles*
Adviser: John Tsavalas

Johnathan Garcia
Chemistry
*Pentacene Organic Semiconductors with Small HOMO-LUMO Gaps*
Adviser: Glen Miller

Andrew Jenkins
Chemistry
*Cyclodextrin Based Metal Organic Frameworks for Polyfluoroalkyl Absorption*
Adviser: Nate Oldenhuis

Anthony Milani
Chemistry
*Synthesis and Characterization of Organothio Substituted Pentacenes*
Adviser: Glen Miller

Anthony Traficante
Chemistry
*Glutathione-Sensitive Nanocarrier Covalent Organic Frameworks for the Synergistic Release of Chemotherapeutics*
Adviser: Nate Oldenhuis
**Chemistry — Undergraduate Research**

Group Leader: Stacey Hughes

Rachel Achong  
Biochemistry, Molecular and Cellular Biology  
Harnessing pDNA Hydrogels for Cell-Free mRNA Synthesis  
Adviser: Nate Oldenhuis

Tinotenda Duche  
Biochemistry, Molecular and Cellular Biology  
Utilizing Plasmid DNA Hydrogels for Cell-Free Protein Production  
Adviser: Nate Oldenhuis

Bryce Hannon  
Chemistry  
Cyanamide-Functionalized Carbon Nitride Semiconductors for Solar Light-Driven Fuel Generation  
Adviser: Christine Caputo

Matthew Huebner  
Chemistry  
Self-Assembly of Cobloxime on TiO2 Nanoparticles for Solar Driven H2 Production  
Adviser: Christine Caputo

Madigan Jennison  
Biomedical Science  
RNase-Free Purification of pDNA Using Anion Exchange Chromatography  
Adviser: Nate Oldenhuis

Erin McCarthy  
Biochemistry, Molecular and Cellular Biology  
Development of a Clickable Probe for Imaging Hydrogen Peroxide in the Bilayer  
Adviser: Brittany White-Mathieu

Carmelina Minico  
Biotechnology  
Glutathione-Sensitive Nanocarrier Frameworks for the Synergistic Release of Chemotherapeutics  
Adviser: Aylin Aykanat

Nicholas Mixon  
Chemistry  
ExogenousClickable Phospholipids for Imaging Hydrogen Peroxide  
Adviser: Brittany White-Mathieu

Tim Murphy  
Chemistry  
Synthetically Modified Titanium Dioxide Nanoparticles for Photocatalysis  
Adviser: Christine Caputo

Taylor Stock  
Biology  
Optimization of Methods to Visualize Hydrogen Peroxide at Cellular Membranes  
Adviser: Brittany White-Mathieu

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**Civil and Environmental Engineering — Analysis**

Group Leaders: Philippe Kalmogo, Anthony Puntin

Collin Allison  
Environmental Engineering  
Alex Michaud  
Kelsey Page  
Civil Engineering  
Julia Bowman  
Environmental Engineering  
Peabody Bikeway  
Adviser: Anthony Puntin

Sara Berg  
Cameron Bourque  
Environmental Engineering  
Hugh Hubbart  
Hallie Saracina  
Civil Engineering  
Stormwater Management at Exeter River Run Community  
Advisers: Paige Libbey, Julie Paprocki

Cameron Bishop  
Environmental Engineering  
Michael Bryan  
William Lennon  
Isaac Stearns  
Civil Engineering  
Fort Hill Rail Trail Truss Bridge and Connecting Rail Trail  
Adviser: Anthony Puntin

Peter Bittman  
Henry Hood  
Daniel John-Zensky  
Patrick Wheeler  
Environmental Engineering  
Farmington Well #4 & #5 Water Treatment  
Adviser: M. Robin Collins

Caleb Chinburg  
Connor Deming  
Payton Maddaloni  
Susie Strickland  
Civil Engineering  
Harvard Museum Structural Assessment  
Adviser: Philippe Kalmogo

Alexis Eaton  
Environmental Engineering, Sustainability  
Kelsey Glass  
Undeclared  
Sarah Nadeau  
Sydney Norris  
Katie O’Brien  
Environmental Engineering  
Former Manufactured Gas Plant Remediation — Great Lakes Region  
Adviser: James Malley

Matt Fitzsimonds  
Nicholas Kenney  
Civil Engineering  
Sawyer Hanlon  
Environmental Engineering  
Rapidly Deployed Temporary Bridge  
Advisers: Eshan Dave, Yashar Eftekhar Azam

Timothy Gibb  
Civil Engineering  
Alice House  
Noah Waldron  
Environmental Engineering  
Powder Mill State Fish Hatchery Recirculating Retrofit Design  
Advisers: David Fredriksson, Paula Mouser
**Civil and Environmental Engineering — Design**

Group Leaders: Philippe Kalmogo, Anthony Puntin

Daniel Bartus  
Jacqueline Borruso  
Katie Coyle  
Ana Rolfe  
Civil Engineering  
*American Society of Civil Engineers Student Steel Bridge Competition*  
Adviser: Yashar Eftekhar Azam

Mitchell Berry  
Joshua Brown  
Timothy Gibb  
Stephen Nolin  
Mason Pillsbury  
Eddie Schluter  
Civil Engineering  
*Bowen Mather*  
Undeclared  
*ASCE Concrete Canoe*  
Advisers: Eshan Dave, Fei Han

Joshua Brown  
Jake Dutile  
Aidan Michalak  
Peter Schultz  
Civil Engineering  
*Highway Garage Design — Warren, NH*  
Adviser: Anthony Puntin

Andrew Calvert  
Alexander Giuffrida  
Nicholas Lorenz  
Ethan Mattison  
Civil Engineering  
*Intersection Improvements for Route 5/113 at Route 160 in the Town of Brownfield, Maine*  
Adviser: Eshan Dave

Max Delisle  
Michael Dyer  
Emily Peckham  
Matthew Craig Thomson  
Civil Engineering  
*Phase 2 Riverside Development*  
Advisers: Kenneth Flesher, Fei Han

Catrin Herbert  
Andrew Merenda  
William Paglia  
Max Perreault  
Civil Engineering  
*Souhegan River Pedestrian Trail*  
Adviser: Anthony Puntin

Austin Leborgne  
Ellie Massie  
Ryan Miller  
Gibby Villa  
Civil Engineering  
*F.E. Everett Turnpike over Baboosic Brook Bridge Replacement*  
Advisers: Erin Bell, Christopher Gagne, Matthew Low

Joey Napoli  
Luke Senter  
Oliver Soares  
Clothespin Bridge Replacement  
Adviser: Matthew Low

Joe Payson  
Ian Sargent  
Christian Sommers  
Civil Engineering  
*Benjamin Towler*  
Environmental Engineering  
*Bow Elementary School Expansion*  
Advisers: Erin Bell, Philippe Kalmogo

Sara Berg  
Environmental Engineering  
*Validation Testing for Commercial-Off-the-Shelf Acoustic Sensor for Oil Spills*  
Adviser: Nancy Kinner

Kate Bowman  
Tucker Hadwen  
Environmental Engineering  
*The Effect of Road Salt Runoff in Surface Waters around the University of New Hampshire*  
Adviser: Paula Mouser

Peter Ejarque  
Sustainable Agriculture and Food Systems  
*Sunburst: A Sustainable, Environmental/Farming Cooperative School*  
Adviser: Felix Devito

Nikhila Lampman  
Environmental Engineering  
*Infrastructure Indicators of Public Health in Coastal Communities*  
Adviser: Semra Aytur

Payton Maddaloni  
Civil Engineering  
*Floating Offshore Wind Turbine Research*  
Adviser: Yashar Eftekhar Azam

Katie O’Brien  
Environmental Engineering  
*Geotechnical Characteristics of Saltmarshes in Continental Climates*  
Adviser: Julie Paprocki

**Civil and Environmental Engineering — Research**

Group Leaders: Philippe Kalmogo, Anthony Puntin

Brian Ascani  
Timothy Barrett  
Mechanical Engineering  
Peter Ejarque  
Sustainable Agriculture and Food Systems  
Lilah Flynn  
Anna Graham  
Gabriel Guertin  
Samuel Twarog  
Tanner Weeks  
Civil Engineering  
*Solar Decathlon*  
Adviser: Felix Devito

Computer Science — Applications

Group Leaders: David Benedetto, Matt Plumlee, Craig Smith

David Blodgett  
Trong Hoang  
Henry Nadeau  
Jonathan Ross  
Information Technology  
Tyler Brown  
Computer Science  
*Enterprise VPN*  
Adviser: Craig Smith
Maeve Burwell
Analytics and Data Science
Joshua Hoffman
Martin O’Sullivan
Computer Science
Andrew Kirk
Information Technology
NextStep Health
Adviser: David Benedetto

Rahul Chalumuri
Kaleb Crowther
Patrick O’Neil
Abhinav Sharma
Computer Science
Zach MacKenzie
Information Technology
USNH myPortal Widgets
Adviser: David Benedetto

Justin Choquette
Aidan Small
Computer Science
Lauren Kennelly
Sriyam Rimal
Jonathan Wang
Information Technology
Booster PAC
Adviser: David Benedetto

Jack Clark
Matthew Farrell
Ben Haddad
Computer Science
Marcus Dominguez
Information Technology
Academic Use Electronic Medical Record (EMR)
Adviser: David Benedetto

Cristian Colon
Tian Guo
Samuel Palumbo
Computer Science
Rowland Ruto
Information Technology
Debate Media System
Adviser: David Benedetto

Peter Grieve
Benicio Liu
Eben Young
Information Technology
Luis Morel
Computer Science
Albacore 2.0: A Virtual Experience
Adviser: Matthew Plumlee

Adam Hassick
Catrina Janos
Kate Keefe
Hannah Marsh
Computer Science
Mobile VR Lab: Immersive Educational Experiences
Adviser: Matthew Plumlee

Computer Science — Data

Group Leaders: David Benedetto, Matt Plumlee, Craig Smith

Sam Alsaaad
Austin Niles
Information Technology
Tyler Griffin
Computer Science
Tracking the Impact of Food Banks across New Hampshire
Adviser: David Benedetto

Jay Bazenas
Analytics and Data Science
Theo DiMambro
Information Technology
Will Morong
Computer Science
PIRail
Advisers: Jon Miner, Craig Smith

Carly Cole
Chris Oelerich
James Regan
Computer Science
BeamTracing
Adviser: Matthew Argall

Michael Crawley
Lucas Melone
Oliver Willis
Computer Science
Joseph Roussos
Analytics and Data Science, Information Technology
Edflation
Adviser: David Benedetto

Adriaan Hendrarto
Ryan Tobin
Analytics and Data Science
Hasan Polat
Computer Science
Roads of the Sea 23-24
Adviser: Craig Smith

Ronan Marino
Sara Overhulser
Computer Science
Dilan Patel
Information Technology
Isaac Stevens
Analytics and Data Science
SwapServer
Adviser: Craig Smith

Computer Science — Systems

Group Leaders: David Benedetto, Matt Plumlee, Craig Smith

Thomas Ackerly
Cole Glennon
Timofei Nikshych
Computer Science
Christopher Sullivan
Information Technology
Wireless Inexpensive Bathymetric Logger (WIBL) Cloud Frontend Integration
Advisers: Brian Calder, Brian Miles, Matthew Plumlee

Nathan Cannon
Cooper Montgomery
Sam Muldrow
Computer Science
Anuj Joshi
Information Technology
Nick Snyder
Computer Engineering
ET NavSwarm
Adviser: May-Win Thein

Jared King
Computer Science
Modernizing Legacy Software
Adviser: Craig Smith

Lex King
Computer Science
Stack Buffer Overflow in Web Assembly: How to Detect and Mitigate It
Adviser: Dongpeng Xu

Savannah Malo
Madison Norton
Information Technology
Jake Skidmore
Jack Spitzer
Computer Science
Prometheus Network Monitor
Adviser: Scott Kitterman
Earth Sciences

Group Leader: Anne Lightbody

Annikka Culbertson
Earth Sciences
Mercury Concentrations in the Great Bay Estuary
Adviser: Maria Florencia Fahnestock

Kyla Drum
Environmental Sciences
Lateral Carbon Transport across a Permafrost Thaw Gradient
Advisers: Lyreshka Castro, Maria Florencia Fahnestock, Cheristy Jones, McKenzie Kuhn, Ruth Varner

Amelea Hauer
Earth Sciences
Analysis of Phytoplankton and Microplastics in the Gulf of Maine Using Flow Imaging Microscopy
Adviser: Kai Ziervogel

Maggie Krein
Environmental Sciences
Influence of Microplastic Contamination on Soil Microbial Community Composition
Adviser: Jessica Ernakovich

Corinne Richard
Earth Sciences
Supply and Consumption of Dissolved Organic Phosphorus across the Subtropical Indian Ocean
Adviser: Robert Letscher

Julia Ward
Environmental Sciences
Sediment Mercury above and below the Head-of-Tide Mill Pond Dam in Durham, New Hampshire
Advisers: Julie Bryce, Maria Florencia Fahnestock

Avery Wilson
Earth Sciences
Laboratory Measurements of Eelgrass Seed Transport Distribution in Sparse Meadow Conditions
Adviser: Theresa Oehmke

Electrical and Computer Engineering

Group Leader: Wayne Smith

Jeremiah Audette
Andrew Peloquin
Computer Engineering
Subterranean Earthworm Mapping for Pest Detection
Adviser: MD Shaad Mahmud

Alex Belanger
Electrical Engineering
Machine Vision: Automated Quality Assurance
Adviser: Se Young Yoon

Natalie Brown
Electrical Engineering, Mechanical Engineering

Devin Eaton
Electrical Engineering
Phased Array for Communications on the 2m and 70cm Bands
Adviser: Nicholas Kirsch

Joshua Calzadillas
Electrical Engineering
Statistical Analysis for Applications of Federated Machine Learning Using House Plants
Advisers: John LaCourse, MD Shaad Mahmud

Nathan Cannon
Cooper Montgomery
Sam Muldrow
Computer Science
Anuj Joshi
Information Technology
Nick Snyder
Computer Engineering
ET NavSwarm PCB Design
Advisers: MD Shaad Mahmud, May-Win Thein, Qiaoyan Yu

Sabby Clemmons
Electrical Engineering, French
Sarah Remeis
Electrical Engineering
Development and Integration of an AI-Enabled Temperature Sensor Array for Monitoring Freeze-Thaw Cycles in New Hampshire
Advisers: Alexandra Contosta, MD Shaad Mahmud

Skylar Gagnon
Computer Engineering
F4kEOUT: Leveraging Cache Contention for Cross-Thread Data Leakage
Adviser: Dean Sullivan

Brian Gannon
Ryan Taylor
Electrical Engineering
Electronic Instrumentation Design to Measure Electrical Currents in Space Using a Rogowski Coil
Advisers: Matthew Argall, Wayne Smith, Dean Sullivan

Owen Gormley
Hunter Wageling
Electrical Engineering
Development and Integration of an AI-Enabled Temperature Sensor Array for Monitoring Freeze-Thaw Cycles in New Hampshire
Advisers: Alexandra Contosta, MD Shaad Mahmud

Matthew Hamilton
Electrical Engineering
The Efficiency of a Hydro Pumped Energy Storage System
Adviser: Se Young Yoon

Abdul Hannan
Electrical Engineering
Smart Insole Design with Optimized Pressure Sensor Numbers and Locations for Temporal Parameters Measurement
Adviser: Diliang Chen

Michaela Harrington
Electrical Engineering
Condition Based Monitoring of Lindt Bar Line
Adviser: John LaCourse

Dale Lavoie
Joel Pontbriand
Electrical Engineering
Health Monitoring for MANTA RAY Autonomous Vehicles
Adviser: Wayne Smith
Nathan McGillicuddy  
Computer Engineering  
Real-Time Rendering of 3D LiDAR Data  
Adviser: MD Shaad Mahmud

Michael Nevins  
Electrical Engineering  
Forced Balancing Hands Free Electric Skateboard  
Adviser: Nicholas Kirsch

Amy Prendergast  
Electrical Engineering  
Non-Invasive Monitoring Device for Early Detection of Breast Cancer Related Lymphedema  
Adviser: MD Shaad Mahmud

Hao Wang  
Computer Engineering  
Plantar Pressure-Based Stride Length and Walking Speed Estimation  
Adviser: Diliang Chen

Iris Baird  
Computer Science  
Using Prominent Colors in Images to Create Slide Themes Utilizing Amazon and Google APIs  
Advisers: Kyle Ouellette, Dean Sullivan

Max Ballard  
Ocean Engineering  
Rebecca Curley  
Environmental Engineering  
Addie Murray  
Bioengineering  
Change in New Hampshire Coastlines over Time  
Advisers: Matthew Florence, Diane Foster

Rowan Baptista  
Jonathan Gosselin  
Zachary McDermeit  
Nicholas Niedzielski  
Mechanical Engineering  
Trent Laroche  
Electrical Engineering  
Remote Operated Micro Tank  
Adviser: Benjamin Mitchell

Christian Bennett  
Owen Mahanes  
Cole Plumley  
Timothy Yon  
Mechanical Engineering  
Mary Roberts  
Computer Science  
Electric Velomobile  
Adviser: Benjamin Mitchell

Zack Blenkorn  
Mechanical Engineering  
Justin Perillo  
Civil Engineering  
Ski Bike  
Adviser: Benjamin Mitchell

Meghan Blood  
Chemical Engineering  
Luz Dottin  
Electrical Engineering  
William Flaherty  
Andrew Gordon  
Mechanical Engineering  
Analyzing and Redesigning Housing for Pressure and Temperature Sensors  
Advisers: Matthew Florence, Diane Foster

Eric Boheen  
Jayden Hartigan  
Bioengineering  
Display of Phenylalanine Ammonia-Lyase on Bacterial Spore Surface for Oral Delivery  
Advisers: Linqing Li, Kang Wu

Ethan Boodey  
Claire Komar  
Gregory Riddle  
Matthew Ryan  
Bioengineering  
Integrating Biomaterials and Microfluidics to Model Physiological Angiogenesis in Vitro  
Adviser: Linqing Li

Lauren Broadbent  
Analytics and Data Science  
Federico Civera  
Chemical Engineering  
Ross Cook  
Electrical Engineering  
Galven Rivera  
Computer Science  
Campus Compass  
Advisers: Kyle Ouellette, Dean Sullivan

Jae Butler  
Cody Cheng  
Oliver Pender  
Computer Science  
Timothy Leveille  
Electrical Engineering  
OccuPi  
Advisers: Kyle Ouellette, Dean Sullivan

Gavin Cianciolo  
Computer Engineering  
Tyler Fitzpatrick  
Computer Science  
Remote Beehive Monitoring Utilizing LoRa Radio Technology  
Advisers: Kyle Ouellette, Dean Sullivan

Trey Countey  
Emerson Dwyer  
Physics  
Engineering Microstructures in Biomaterials for Drug Delivery  
Advisers: Saniya Yesmin Bubli, Linqing Li

William Danais  
Chemical Engineering  
Nicholas Martel  
Mechanical Engineering  
Alkaline Fuel Cell  
Adviser: Benjamin Mitchell
Evan DiChiara
Mechanical Engineering
E85 Ethanol 2 Stroke Conversion
Adviser: Benjamin Mitchell

Pearson Franz
Chemistry

Ayden LaChance
Undeclared

Paige Nelson
Mackenzie Silcox
Bioengineering
Matrix Composition and Stiffness Regulate Ovarian Cancer Behavior
Advisers: Matthew Florence, Diane Foster

Emma Galbraith
Computer Science, Sustainability

Evan Petersen
Mechanical Engineering

Mark Rittgers
Computer Science
Active Alert Scheduler
Adviser: Kyle Ouellette

Ariyana Greene
Chemical Engineering

Madison Pageau
Chemistry

Jeremiah Sihotang
Mechanical Engineering

Maev White
Bioengineering
Assembly of Cell Aggregates Using Biomaterials
Adviser: Linqing Li

Zachary Holt
Electrical Engineering

Jonah Stevens
Ocean Engineering

Marc Vexler
Mechanical Engineering
A Tale of Troubleshooting: BRPT Circuitry
Advisers: Matthew Florence, Diane Foster

Garrett Hunter
Mechanical Engineering, Sustainability

Douglas Lafleur
Mechanical Engineering
Integrating Electrospun Biocomposite Fibers with Microfluidics to Regulate Cell Behavior
Adviser: Linqing Li

Donovan LaValley
Chemistry

Andrew Lester
Information Technology

Emma Wilusz
Bioengineering
Optimization of Software for Coastal Weather Monitoring
Advisers: Matthew Florence, Diane Foster

Mathematics/Statistics

Group Leader: Michelle Capozzoli

Keith Badger
Statistics
Iterative Markov Game Solvers with Convergence Analysis
Adviser: Marek Petrik

Phil Breton
Mathematics
The Generalized Composition Operator on Bloch Spaces
Adviser: Rita Hibschweiler

Karthik Chalumuri
Information Technology, Statistics
Imputation Strategies for Categories of Missing Data
Adviser: Philip Ramsey

Payson Hornbeck
Statistics
Optimization of Air Quality Monitoring
Adviser: Michelle Capozzoli

Dylan Stiles
Analytical Economics, Statistics
A Method to Grade Individual Defensive Impact in NBA Games
Adviser: Michelle Capozzoli

Mekan Annayew
Henry Gorhan
Nathaniel Huckins
Aidan Palermo
Justin Paul
Robert Putnam
Jonathan Sawyer
Geoff Smith
Mechanical Engineering
UNH Baja Racing
Adviser: Iyaylo Nedyalkov

Weston Bartlett
Kaiden Bedell
Anthony Comte
Ethan Costa
Kenneth Fazio
Steven Gallopo
Tyler Jagentenfl
Sean Manning
Noah Simard
Mechanical Engineering
Christopher Brunet
Cody McBride
Joy Planchet
Matt Toppi
Computer Science
UNH LunaCats: NASA Robotic Mining Competition Team
Advisers: ChanLing Beswick, Matthew Plumlee, May-Win Thein

Aidan Belleau
Anthony Ciampo
Jenna Denker
Joshua Godin
TJ Kaempfer
Maddalena Noli
Sebastian Roland
Brady Wall
Mechanical Engineering
Casey Gladu
Jason Londono
Mason McDonald
Kaia Staples
Computer Science
Quad-X Swarm
Adviser: May-Win Thein

Mechanical Engineering — Competition and Clubs

Group Leaders: Juan Bautista, Anthony Puntin

Ian Anderson
Rowan Baptista
Zachary McKerley
Mechanical Engineering
Electric Vehicles Organization: Electric Moped Conversion
Adviser: Noah MacAdam
Anthony Bilodeau
Samuel Flynn
Ryan Tripp
Matthew Wharton
Mechanical Engineering
Mason McDonald
Computer Science
Matthew Williams
Mathematics
UNH SEDS
Adviser: Ivaylo Nedyalkov

Todd Brown
Mathieu Champagne
Ryan Gervais
Trevor Legros
Sam Osgood
Owen Pratt
Mechanical Engineering
UNH Precision Racing FSAE
Adviser: Juan Carlos Cuevas Bautista

Daniel Ciarla
Emma Mikucki
Timothy Polychronopoulos
Adam Raffay
Isaac Tilbor
Mechanical Engineering
EVO Crosskart
Adviser: Ivaylo Nedyalkov

Jackson Morrissey
Eli Webber
Mechanical Engineering
Laser Removal of Thin Coatings
Adviser: Ivaylo Nedyalkov

Jake Murphy
Robert Shields
Colton Workman
Thomas Wudyka
Mechanical Engineering
Robotic End-Effector
Adviser: John Roth

Ocean Engineering
Group Leader: May-Win Thein
Matthew Carlson
Riley Desmarais
Nathaniel Hixon
William Lindsay
William Moore
Will Weete
Mechanical Engineering
Jack Kearing
Kara Wittmann
James Wood
Environmental Engineering
Allison Kelley
Kevin Moriarty
Ocean Engineering
Cameron Vose
Entrepreneurial Studies
Drift-RMT
Advisers: Erin Bell, Lisa Keslar, Martin Wosnik

Garrett Carolan
Mechanical Engineering
Maddy Covell
Addie Jonas
Joshua Northrop
Biology
Chloe Harris
Jackson Perkins
Ocean Engineering
Lily Sullivan
Zoology
Design of a Whale Safe Mussel Farm
Advisers: Michael Chambers, Michael Coogan, David Fredriksson, Igor Tsukrov

Tristan Colby
Mechanical Engineering
Jane Schwadron
Ocean Engineering
Air-Sea Flux Buoy
Advisers: Nathan Laxague, Shawn Shellioto

Mechanical Engineering —
Industry
Group Leaders: Juan Bautista, Anthony Puntin

Spencer Beahm
John Hora
Christopher Seaver
Mechanical Engineering
SnowE
Adviser: Ivaylo Nedyalkov

Reyer Bliss
Joseph Falk
Jared Hakala
Ethan Hardardt
Mechanical Engineering
Electric Adaptive Ski Trike (EAST)
Adviser: John Roth

Elena Chan
Spencer Shample
Mechanical Engineering
Unitil Natural Gas Regulating Station Preliminary Engineering Report
Adviser: Ivaylo Nedyalkov

Matt Finneran
Mark Tetrault
Steven Wilson
Mechanical Engineering
Rapidly Deployable Relief Housing
Adviser: John Roth

Mechanical Engineering —
Faculty Sponsored Projects
Group Leaders: Juan Bautista, Anthony Puntin

Laura Catalano
Hayden Gilooley
Nathan Labrecque
Mechanical Engineering
Robotic Blacksmithing Apparatus
Adviser: Brad Kinsey

Shahrkh Khan
Alexander Shirley
Mitch Umehara
Mechanical Engineering
Project Pedicab
Adviser: Juan Carlos Cuevas Bautista
Josephine DeMerit
Biology, Sustainability

Maddie Ellms
Zoology

Jack Groeneveld-Meijer
Zachary Simone
Jeremy Spewock

Nico Stone
Computer Science

Dale Lavoie
Joel Pontbriand
Electrical Engineering

Dan Machera
Zack Plaza
Mechanical Engineering

Mackenzie Mc Keegan
Biology

Ali Mojtabaei Soleimani
Computer Science, Mechanical Engineering, Ocean Engineering

Samantha Shanboltzer
Marine, Estuarine and Freshwater Biology
Marine and Naval Technological Advancements for Robotic AutonomY (MANTA RAY): Uncrewed Underwater Vehicles (UUVs)
Advisers: Elizabeth Fairchild, Matthew Plumlee, Uri Rzhanov, May-Win Thein

Skye Flegg
Arjun Sahni
Biology

Joshua Kazmer
Ocean Engineering

Oyster Biosensors: Measuring Farmed Oyster Health and Related Water Quality
Advisers: Brittany Jellison, Easton White

Jack Groeneveld-Meijer
Zachary Simone
Jeremy Spewock

Nico Stone
Computer Science

Dale Lavoie
Joel Pontbriand
Electrical Engineering

Max MacCannell
Olivia McCarter
Gabrielle Petersen
Noah Phillips
Jake Small
Mechanical Engineering

Manta Ray — ASV2
Adviser: May-Win Thein

Physics

Group Leader: Nathaly Santiesteban

Alec Damsell
Physics
Determining the Equilibrium State of a High-Temperature Plasma in a Magnetic Confinement Nuclear Fusion Reactor
Adviser: Benjamin Chandran

Torsten Diesel
Physics
Investigating Low-Temperature Scintillation Properties of Bismuth Germanate
Adviser: Fabian Kislat

Elisabeth Drakatos
Civil Engineering
Migrating NASA Mission Processing to the Cloud: The HelioSwarm Trade Study
Adviser: Jonathan Niehof

Simon Eisl
Physics
Locating Icequakes Using Seismic Data
Advisers: Mong-Han Huang, Dawn Meredith, Nick Schmerr

Anna Geho
Engineering Physics
Scatter Angle in Hard X-Ray Polarimeter X-Calibur
Adviser: Fabian Kislat

Devane Gurge
Engineering Physics
LCA of Space Mission’s Global Warming Potential
Adviser: Weiwei Mo

Duncan Hall
Physics
Photometric Observations of Exoplanets Exhibiting Transit Timing Variations
Adviser: John Gianforte

Joseph Jayne
Physics
Global Analysis of the Neutron Magnetic Form Factor
Adviser: Nathaly Santiesteban

Angus Kirkpatrick
Engineering Physics
Precise Positioning an Antenna Array for Lightning Imaging
Adviser: Ningyu Liu

Emily McLain
Engineering Physics
Attitude Determination and Control System of a 3U Cube Satellite
Adviser: Noe Lugaz

Alec Mercer
Engineering Physics, Sustainability
Advanced Development of the Thermospheric Winds Imager
Adviser: James Clemmons

Eli Phippard
Physics
Simulating the Energy Deposited in Ammonia from a High Energy Electron Beam
Adviser: Karl Slifer

Jackson Scheele
Engineering Physics
Developing CubeSat Instruments to Measure Upper Atmospheric Winds
Adviser: James Clemmons

Gavin Smith
Physics
Investigation of Electronic States across NbTe2 CDW Domain Walls
Adviser: Shawna Hollen

Anderson Steckler
Physics
Characterization of Coaxial Cables Using a Vector Network Analyzer for the Calibration of a Radio Interferometer for Lightning Study
Adviser: Ningyu Liu

Koichiro Takahashi
Physics
Nonlinear Dynamics of Skyrmion in Helical Lanes
Advisers: Sergey Pershoguba, Jiadong Zang

Aden Whitney
Physics
Exploring Neutron Energy Capture for Deuterium-Tritium Fusion Rockets
Adviser: James Connell
University-Wide Undergraduate Sustainability Research Symposium

Oral Presentations

Wednesday, April 24
9-11:30 a.m. and 1:30–4:30 p.m.
Memorial Union Building, Rooms 330, 332, and 338

Students from all disciplines present research on a broad range of sustainability challenges — addressing environmental stewardship, social well-being, and economic vitality to meet our present needs, while ensuring the ability of future generations to meet their needs. Undergraduates doing sustainability research who present at this Symposium are automatically considered for the new UNH Sustainability Awards.

Sofia Anestam
Environmental Engineering, Sustainability
*How Close Is UNH to Its Footprint Reduction Goals Set in WildCAP?*
Adviser: Jennifer Andrews

Louis Arinello
Spanish, Sustainability

Karena Sazo
Environmental Conservation and Sustainability
*How Do Stormwater Management Systems Impact the Environment and How Can Communities Contribute to Their Maintenance?*
Adviser: Jennifer Andrews, Jade Chalkley

Sofia Balan
Finance, Sustainability

Ryan Ensminger
Ryan Gray
Environmental Sciences, Sustainability
*Sustainability CSV Initiative: Biodiversity Consumption*
Adviser: Betty Woodman

Julian Baldwin
Civil Engineering, Sustainability

Bennett Murphy
Mechanical Engineering, Sustainability

Justin Wentworth
Environmental Sciences, Sustainability
*Sustainability in Action: New Hampshire Agroforest*
Adviser: Betty Woodman

Lucy Barlow
Art: Art History

Rachel Hazelwood
Undeclared

Danika Miller
Sociology, Sustainability
*Sustainability CSV Initiative: Education*
Adviser: Betty Woodman

Ila Bartenstein
Environmental Sciences, Sociology

Andrew Ricketts
Genetics, Sustainability
*How Can We Effectively Promote Pollinator Protection through Student Outreach to Enhance the UNH Community?*
Adviser: Jennifer Andrews

Griff Bates
Rowan Pow
Environmental Engineering, Sustainability

Will Byington
Environmental and Resource Economics, Sustainability
*Sustainable Cities*
Adviser: Betty Woodman

Kaiden Bedell
Mechanical Engineering

Daisy Burns
Economics, Sustainability

Logan Whittaker
Psychology, Sustainability
*Key Findings from the International Changemaker Grant Volunteering Trip to Takataka Plastics in Gulu, Uganda*
Adviser: Faina Bukher

Marisa Bianchi
Environmental Conservation and Sustainability
*Sustainable Dining and Conscious Consumption*
Adviser: Jennifer Andrews, Jade Chalkley

Abigail Blasi
Political Science, Sustainability

Braden McDonnell

Andrew Otersen
Analytical Economics, Sustainability

Findlay Peet
Environmental Sciences, Sustainability
*Extended Producer Responsibility in New Hampshire*
Adviser: Erin Hale

Nicholas Booth
Business Administration

Daniel deMoor
Communication, Sustainability

Bodie Townsend
Sustainability, Undeclared
*Sustainable Community Development*
Adviser: Betty Woodman

Megan Broderick
Educational Studies, Environmental Conservation and Sustainability
*How Can Sustainability Advocates Increase Sustainability Peer Education in UNH Residence Halls?*
Adviser: Jade Chalkley

Daisy Burns
Economics, Sustainability
*How Can We Build a Community That Fosters Sustainability on Campus and Beyond?*
Adviser: Jade Chalkley

Daisy Burns
Economics, Sustainability
*Impacts of Climate Change on the Datoga and Hadzabe Tribes in Lake Eyasi Basin, Tanzania*
Adviser: Erin Hale

Patrick Butler
English/Journalism, Sustainability

Zachary Diehl
Recreation Management and Policy, Sustainability

Nathan Maybach
Sustainability

Jessica Seibel
Psychology, Sustainability

Matthew Wilkins
Political Science, Sustainability
*Seafood’s Impacts along the Value Chain: Entity-Level Greenhouse Gas Accounting of Sushi Ingredient Distribution*
Adviser: Allison Leach
Sara Carleo  
Information Systems and Business Analytics, Sustainability

Kenzie Gagne  
Finance, Sustainability

Morgan Kahn  
Finance, Information Systems and Business Analytics, Sustainability

Olivia LaRose  
Management, Sustainability  
Equity and Climate Opportunity Fund  
Adviser: Erin Hale

Caroline Cirillo  
Environmental Conservation and Sustainability, Sustainability  
What Are the Diversion Opportunities for Hard to Recycle Materials at UNH?  
Adviser: Jennifer Andrews

Robert Collier  
Business Administration, Sustainability  
Alex Magin  
Environmental Engineering, Sustainability

Tim Sicard  
Finance, Information Systems and Business Analytics, Sustainability  
Sustainability CSV Initiative: Clean Energy  
Adviser: Betty Woodman

Madison Davine  
Edyn Winter  
Marketing, Sustainability

Tess Hornbeck  
Spanish, Sustainability, Theatre

Maria Jacques  
Management, Sustainability  
Durham Community Waste Education  
Adviser: Erin Hale

Elizabeth DelGiudice  
Environmental Engineering, Sustainability

Alyssa Jackson  
Geography, Sustainability

Molly Smith  
Political Science, Sustainability  
Sustainability CSV Initiative: Justice, Policy, and Institutions  
Adviser: Betty Woodman

Nicole Deneau  
Marketing, Sustainability

Anakin Paige  
Civil Engineering, Sustainability  
Sustainability CSV Initiative: Sustainable Cities and Communities  
Adviser: Betty Woodman

Bella Dziak  
Caroline Yates  
Community and Environmental Planning, Sustainability

Brianna Fraser  
English, Sustainability

Simon Quinn  
Political Science, Sustainability  
Food Forests: A Perennial Initiative  
Adviser: Erin Hale

Alec Ferrante  
Environmental and Resource Economics, Sustainability

Josephine Ginivisian  
Human Development and Family Studies, Sustainability

Shane McKenna  
Community and Environmental Planning  
Sustainability in Action: Environmental Awareness on Campus  
Adviser: Betty Woodman

Samuel Gobeil  
Analytical Economics, Sustainability

Lauren McDowell  
Kennedy McGrath  
Marine, Estuarine and Freshwater Biology, Sustainability

Sarah Nadeau  
Environmental Engineering  
Marine Debris in Gulf of Maine  
Advisers: Gabriela Bradt, Erin Hale, Lindsey Williams

Sophie Goodwin  
Sociology, Sustainability

Miles Keefe  
Geography, Sustainability

Margaret Lahey  
Business Administration, Sustainability

Alyssa Morrison  
Information Systems and Business Analytics, Sustainability  
Farm Level Food Waste in New Hampshire  
Adviser: Erin Hale

Ava Graham  
Sustainability, Wildlife and Conservation Biology

Benjamin Kaminski  
Recreation Management and Policy, Sustainability

Abigail Kincaid  
Environmental and Resource Economics, Sustainability  
Sustainability CSV Initiative: Food Systems (Zero Waste)  
Adviser: Betty Woodman

Tess Hornbeck  
Spanish, Sustainability, Theatre  
Where Will Wildcats Toss Their Trash?  
Creating a Standardized Waste Collection System at UNH  
Adviser: Jennifer Andrews

Benjamin Kaminski  
Recreation Management and Policy, Sustainability  
Trash 2 Treasure Feasability and Redefining Success  
Advisers: Jennifer Andrews, Jade Chalkley

Haley LeMoine  
Management, Sustainability

Angelina Meyer  
Business Administration

Megan Stearns  
Undeclared  
MLSustainable Business Innovations  
Adviser: Betty Woodman

Ella Longacre  
Information Systems and Business Analytics, Sustainability

Aidan Miller  
Environmental Engineering, Sustainability

Sydney Vanasse  
Earth Sciences, Sustainability  
Sustainability CSV Initiative: Renewable Energy  
Adviser: Betty Woodman

Durga Raja  
Environmental and Resource Economics, Sustainability  
UNH Food Purchasing Impacts on Carbon and Nitrogen Footprints  
Adviser: Allison Leach
University-Wide Undergraduate Sustainability Research Symposium

Poster Presentations

Wednesday, April 24
10:30-11:30 a.m. and 12-1 p.m.
Memorial Union Building,
Rooms 334 and 336

Students from all disciplines present research on a broad range of sustainability challenges — addressing environmental stewardship, social well-being, and economic vitality to meet our present needs, while ensuring the ability of future generations to meet their needs. Undergraduates doing sustainability research who present at this Symposium are automatically considered for the new UNH Sustainability Awards.

Audrey Baldwin
Environmental Sciences

Ella Berg
Psychology

Ginger Schoff
Political Science
The Effect of Education Freedom Accounts (EFAs) on Educational Equity in New Hampshire
Adviser: Erin Hale

Sydney Barringer
Ecogastronomy, Environmental Conservation and Sustainability
The Morals of Meat: Comparing the History of Vegetarianism in India and the United States
Adviser: Daniel Winans

Madeline Beaton
Ecogastronomy, International Business and Economics
Exploring Seasonal and Local Food on the Seacoast
Adviser: Daniel Winans

Molly Bonczek
Ecogastronomy, Environmental Conservation and Sustainability
Veggie-GO: Connecting Local Farms to Durham through Community Supported Agriculture
Adviser: Daniel Winans

Tamara Bouchard
Biochemistry, Molecular and Cellular Biology

Sam McLaughlin
Music
How Does a Strong Local Food System Promote Climate Resilience?
Adviser: Erin Hale

Grace Cardin
Analytical Economics

Brielle Cloutier
Political Science

Sophie Kingston
Biomedical Science
Sustainable Seafood at UNH
Adviser: Erin Hale

Erin Classey
Environmental Sciences, Sustainability

Liliana Pistor
Biology, Sustainability

Matthew Stern
Political Science
Energy Conservation and Use in UNH Dorms
Adviser: Erin Hale

Alyssa Crotty
Business Administration

Madelyne Hancock
Economics
How UNH Is Focusing on Reducing Waste and Overconsumption
Adviser: Erin Hale

Ryan Femino
Communication, Ecogastronomy
Discovering Durham: Exploring Local Eateries
Adviser: Daniel Winans

Jacqueline Fuller
Music Education

Allison Kish
Marine, Estuarine and Freshwater Biology, Sustainability
The Importance of the Arts for a Sustainable Future at UNH
Adviser: Erin Hale
Emma Galbraith
Computer Science, Sustainability
Kara Hatalsky
Zoology
UNH and Durham Empowerment of Local Land Stewardship
Adviser: Erin Hale

Daniel Gottschalk
Ecogastronomy, Marketing
From Seed to Soil: A Floral Composting Endeavor
Adviser: Daniel Winans

Isabella Hart
Ecogastronomy, Fine Arts
Pisco to Pescado: Painting Peruvian Food
Advisers: Daniel Winans, Liese Zahabi

Jenna Meyer
Ecogastronomy, Wildlife and Conservation Biology
Consumer Choice in the Chocolate Industry: How Can We Make a Difference?
Adviser: Daniel Winans

Ella Norenberg
Ecogastronomy, Psychology
Supper Club: Food, Community, Conversation
Advisers: Laila Hammam, Daniel Winans

Samuel Seibert
Biomedical Science, Ecogastronomy
Micro-Breweries, Macro Waste
Adviser: Daniel Winans

Lyla Tulloch-Hernandez
Business Administration

Jordan Wright
Community and Environmental Planning, Sustainability
A Comparative Exploration of Post-Primary Consumer Life of Clothes in the Durham Community
Adviser: Erin Hale

The Naked Arts—Creativity Exposed! (Act I)

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

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

Alexandra Avakova
Fine Arts
Cowabunga!
Adviser: Benjamin Cariens

Eli Bryant
Fine Arts
The Garden of Eli
Adviser: Benjamin Cariens

Se Choi
Fine Arts
Pilgrimage
Adviser: Benjamin Cariens

Madison Hoppler
Fine Arts
Spiraling Terrarium
Adviser: Benjamin Cariens

 Ember Nevins
Fine Arts, Women's and Gender Studies
Your Body Is a Wonderland/Your Body Is a Wasteland
Adviser: Benjamin Cariens

Keri Stewart
Psychology
The Frog Princess Lost Her Amphibian Self
Adviser: David Blair

Steven Thompson
English, Psychology
Nightfall
Adviser: Clark Knowles

Colleen Williams
Educational Studies, Fine Arts
Moon on Fire
Adviser: Benjamin Cariens

Seth Wyatt
Art: Studio Art
Observation Deck
Adviser: Benjamin Cariens
UNH Manchester Undergraduate Research Conference

Poster Presentations

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

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.

Mahalakshmi Bandaru
Nikhita Podapati
Chethan Vagvala
Biotechnology
Biofabrication of Neural Constructs Using Methyl Cellulose and GelMA
Advisers: Won Hyuk Suh, Matthew Woodworth

Arianna Bikombe
Gabi Blomquist
Alexis Boucouvalas
Sean Burwen
John Gant
Andre Nasrah
Nicholas Phenner
Tony Pion
James Rooney
Jonathan Rooney
Eshwar Senthilnathan
Computer Information Systems

Peter Dinh
Benjamin Heney
Aron Laborera
Ashley Merced
Long Nguyen
Bryan Robbins
Matt Senibaldi
Willem Shattuck
Computer Science
UNH Manchester Computing Capstone: A Group Research Project in Automatic Speech Recognition
Adviser: Michael Jonas

Jacob Brown
Trinity Minard
Matthew Woodworth
Biotechnology
Characterization of RenCell VM Spheroids Bioprinted in Different Hydrogel Formulations
Adviser: Won Hyuk Suh

Jacob Brown
Kaylee McKenzie
Trinity Minard
Biotechnology
Osteogenic Induction of Hydrogel-Encapsulated Mesenchymal Stem Cells
Adviser: Won Hyuk Suh

Madison Buskey
Biological Sciences
Lab Differences
Adviser: Kyle MacLea

Olivia Cadorette
Kenneth Paquette
Biotechnology
Does Temperature Affect the Beta-Galactosidase Activity in a Culture of E. coli?
Adviser: Kristen Johnson

Layne Cilley
Biological Sciences
Comparing the Bacterial Diversity between Two Soil Conditions Using Metabarcoding
Adviser: Suzanne Cooke

Layla Cilley
Biological Sciences
The Inhibitory Effects of Caffeine on Beta-Galactosidase Production and Activity
Adviser: Kristen Johnson

Dylan Conroy
Biotechnology
The Experience of Interning as a Lab Assistant at the Manchester Water Treatment Plant
Adviser: Suzanne Cooke

Lauryn Davis
Biotechnology
The Medical Scribe Journey
Adviser: Suzanne Cooke

Adrienne deAlmeida
Neuropsychology
Strategies to Enhance Memory in Older Adults
Adviser: Alison Paglia

Sage Dieffenbach
Biological Sciences
Comparing the Bacterial Diversity between Two Soil Conditions Using Metabarcoding
Adviser: Suzanne Cooke

Mackenzie Dodge
Biological Sciences
Equine Wellness
Adviser: Suzanne Cooke

Kaitlyn Douillard
Biological Sciences
The Effects of Environment on Antibiotic Activity
Adviser: Suzanne Cooke

Tara Duffy
Psychology
Mindfulness and Rare Neuroimmune Disorders
Adviser: Alison Paglia

Daniel Enright
Undeclared
Having It Their Way: The Whopping Significance of Burger King Product Placement in the 2000s
Adviser: Jeffrey Klenotic

Jackson Faulling
Biotechnology
Differentiation of iPSCs to Cardiomyocytes in 3D Printed Bioink vs. 2D Culture Plate
Adviser: Won Hyuk Suh

Rhea Hernandez
Biotechnology
Which Can Co-Culture Better?
Adviser: Suzanne Cooke

Lillyann Jin
Biotechnology
Distinguishing the Professional Specialties and Business Approaches of Dentistry
Adviser: Suzanne Cooke

Lindiwe Jiri
Biotechnology
The Impact of Media Type on The Productivity and Enzymatic Activity of Beta-Galactosidase Produced by E. coli Strain ATCC 15224
Adviser: Kristen Johnson
Lindiwe Jiri  
Biotechnology  
Transglutaminase for 3D Bioprinting: Approaches and Future Directions  
Adviser: Won Hyuk Suh

Ryan Johnson  
Ian Swenson  
Neuropsychology  
The Effects of Eccentricity and Quadrant Placement on MIB Disappearance  
Adviser: John Sparrow

Abhilash Achary Kammari  
Deekshitha Megavath  
Biotechnology  
AKTA Purification and Enzyme Analysis of Beta-Galactosidase with Cysteine as an Inhibitor  
Adviser: Kristen Johnson

Teja Kannekanti  
Biomedical Science, Biotechnology  
Ganesh Vodela  
Biotechnology  
PC12 Cell Differentiation on PA Hydrogels for Traction Force Microscopy  
Adviser: Mark Scimone

Sree Shiva Komati  
Deekshitha Megavath  
Biotechnology  
3D Printing PLA Microsphere Cultured iPSC Derived Neural Progenitor Cells for Neurogenesis  
Advisers: Won Hyuk Suh, Matthew Woodworth

Bhargav Kothapalli  
Uyen Ly  
Biotechnology  
The Effects of Theophylline on Beta-Galactosidase Activity and Production in E. coli  
Adviser: Kristen Johnson

Zoey Lauria  
Neuropsychology  
Exploring Neuropsychology: Insights into Clinical Practice  
Advisers: Nicholas Mian, Melinda Morrill

Caitlin Lowry  
Neuropsychology  
The Role of a Biology Learning Assistant and the Addition of Novel Techniques to Enhance Student Learning  
Adviser: Patricia Halpin

Kate Mazur  
Biomedical Science  
Nikhita Podapati  
Biotechnology  
PC12 Cell Differentiation in 3D Collagen Hydrogels for Contractility Measurements  
Adviser: Mark Scimone

Rylie McCoy  
Biological Sciences  
Finding the Best Media to Cultivate Lake Massabesic Microplastic Biofilms  
Adviser: Suzanne Cooke

Kaylee McKenzie  
Robert Steele  
Chethan Vagvala  
Biotechnology  
Cytotoxicity Evaluation of ATRA and CHIR  
Adviser: Won Hyuk Suh

Trinity Minard  
Matthew Woodworth  
Biotechnology  
Student Explorations into the Bioprinting Process: Bioink Development  
Adviser: Won Hyuk Suh

Ramyasri Naraharisetti  
Harika Pakkeerpally  
Biotechnology  
Impact of NaCl as an Activator on Beta-Galactosidase Produced from E. coli  
Adviser: Kristen Johnson

Keith Ott  
Biotechnology  
Fermentation Engineering  
Adviser: Kyle MacLea

Kenneth Paquette  
Biotechnology  
Safe Medication Pass Study  
Adviser: Suzanne Cooke

Rachel Pitt  
Biotechnology  
Isolation of NoMADS Bacterial Samples  
Adviser: Suzanne Cooke

Sabrina Rahme  
Humanities  
It’s All Animation  
Adviser: Phillip Deen

Gwendolyn Tupman  
Biotechnology  
Exploring FOXN2’s Role in Ciliogenesis: Insights from NIH3T3 Cells  
Advisers: Suzanne Cooke, Kristen Johnson

Keegan Unzen  
Mechanical Engineering  
Self-Assembly, Self-Folding, and Soft Robotics Research  
Adviser: Donald Plante

James Vidal  
Biological Sciences  
Demineralization and Remineralization  
Adviser: Suzanne Cooke

Ashley Wenning  
Biotechnology  
Capturing Biofilm Bacteria from Micro Plastics and Assessing Their Antibiotic Properties  
Adviser: Suzanne Cooke
**UNH Manchester URC Cinema Arts Day**

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

The UNHM Communication Arts program has a production track in which students complete introductory and advanced coursework 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.

Catherine Casey
Communication Arts
*Chester's Ice Lady*
Adviser: Anthony Tenczar

Catherine Casey
Communication Arts
*Deep Down*
Adviser: Anthony Tenczar

Alec Dubois
Communication Arts
*Artificial Intelligence in Media Production*
Adviser: Michael Soha

Oscar Gamache
Communication Arts
*33: An Interview with Adam Omundson*
Adviser: Anthony Tenczar

Ashleigh Hodson
Communication Arts
*Is It Art?*
Adviser: Anthony Tenczar

Tyler Montgomery
Communication Arts
*The Wood, Parts 1 and 2*
Adviser: Anthony Tenczar

Liam Shelly
Communication Arts
*Drag Will Survive*
Adviser: Anthony Tenczar

Adam Zienkiewicz
Communication Arts
*Visitors*
Adviser: Anthony Tenczar

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**History Department Undergraduate Research Conference**

**Thursday, April 25**
12–3 p.m.
Memorial Union Building, Rooms 115, 233, and 237

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.

Ryan Cutting
History
"Marry a Good Man, and Bear Good Children": A Re-Examination of the Site of the Temple of Artemis-Orthia as a Fertility Site
Adviser: Michael Leese

Zachary Desmarais
History
Alexander the Great
Adviser: Gregory McMahon

Claire Hobbs
History
Hineni: The Jewish History of the New Hampshire Seacoast
Adviser: Alexis Broderick

Madison Pageau
Chemistry
American Moms
Adviser: Elizabeth Mellyn

Haley Parker
History, Women's and Gender Studies
The Lighthouse Keeper's Daughter: The Life and Work of Celia Laighton Thaxter
Adviser: Kimberly Alexander

Samuel Schuster
German, History
Maidenhood as a Cornerstone of Gender
Adviser: Michael Leese

Mikayla Tilden
History
Adviser: Kurk Dorsey

Jordan Wright
Community and Environmental Planning, Sustainability
Defining Climatic Distress and Its Place in Epistemology
Adviser: Elizabeth Mellyn

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**The Naked Arts—Creativity Exposed!**

**Act II**

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

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

Kyle Cook
Music
The Sound of Music: Composition through Found Sounds and Materials
Adviser: Michael Shun
Sonya Endrizzi
Art: Art History, Art: Studio Art
The Study of “Slave Ship” by J.M.W. Turner: Understanding the Life of an Object
Adviser: Susan Wager

Isabella Hart
Ecogastronomy, Fine Arts
Fearless Flukes
Adviser: Benjamin Cariens

Chloe Jaarsma
Mathematics, Music
Jewish Chant in the Music of Yizkor
Adviser: Jacques Wood

Emma Kostyun
English/Journalism, Justice Studies
The Miracle of Life
Adviser: Thomas Payne

Erin McKeen
Fine Arts
A World Outside
Adviser: Benjamin Cariens

Niko McPherson
Theatre
An Exploration of the Intimate World of Solo Performance
Adviser: Tom Alsip

Dana Morrison
Fine Arts
Photographing a Path to Self-Compassion
Adviser: Benjamin Cariens

Jada Stietzel
Fine Arts, Psychology
Ripples of the Mind
Adviser: Benjamin Cariens

Sarah Louise Whittier
Theatre
Vaganova & Cecchetti: Two Teachers, Two Techniques, One Ballet
Advisers: Assaf Benchetrit, Gay Nardone

UNH Manchester URC
Engineering Technology
Senior Capstone Robotics Presentations

Friday, April 26
8 a.m.–1 p.m.
88 Commercial St.,
MPR Room 201, Manchester

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

Rashid Amiri
Aymane Naanai
Joseph Wangu
Mechanical Engineering

Jacob Bolduc
Colby Roberts
Electrical Engineering

UNG VEX U Robotics Competition
Team UNHM#6
Advisers: Robert Arredondo, Donald Marcotte

Caio Campos
Electrical Engineering

Ian Finken
Electrical Engineering Technology

Daniel Lougee
Mechanical Engineering Technology

Keegan Unzen
Mechanical Engineering

UNG VEX U Robotics Competition
Team UNHM#2
Advisers: Robert Arredondo, Donald Marcotte

Angie Campos Untiveros
Christian Hitimana
Robert Menegus
Mechanical Engineering Technology

Thoma Luzi
Patrick McCarthy
Electrical Engineering Technology

UNG VEX U Robotics Competition
Team UNHM#5
Advisers: Robert Arredondo, Donald Marcotte

Jacob Carlson
Eann McCurdy

Alexander Raymond
Mechanical Engineering Technology

Jai-Lynn Goss
Electrical Engineering Technology

UNG VEX U Robotics Competition
Team UNHM#6
Adviser: Robert Arredondo

Walter Chacon
Connor Dodge

Daniel Stough
Electrical Engineering Technology

Timothy Woodward
Mechanical Engineering Technology

UNG VEX U Robotics Competition
Team UNHM#3
Advisers: Robert Arredondo, Donald Marcotte

Keillys Guerrero Rojas
Paul Wrampe

Mechanical Engineering

Yuly Monsalve Cabeza
Electrical Engineering

Joshua Smith
Electrical Engineering Technology

Matthew Swanton
Mechanical Engineering Technology

UNG VEX U Robotics Competition
Team UNHM#1
Advisers: Robert Arredondo, Donald Marcotte
All Colleges Undergraduate Research Symposium

Welcome Breakfast

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

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

All Colleges Undergraduate Research Symposium

Oral Presentations, Session A

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

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

Memorial Union Building, Room 302

Ann Manchester Kelley Nursing Scholars
Moderator: Raelene Shippee-Rice

Erin Donahue
Nursing
Inclusivity of IVF Clinic Websites
Adviser: Alyssa O’Brien

Emma Doran
Nursing
Understanding Hospital-Based Nurse End-of-Life Care, Knowledge, and Comfort: A Quality Improvement Project
Advisers: Michele Lovell, Alyssa O’Brien

Jaylyn Jewell
Nursing
Nursing Education and Comfort Level with Eating Disorder Patients
Advisers: Eileen Hollis, Alyssa O’Brien

Brianna Meyer
Nursing
Student Perspectives on the Mental Health Curriculum within the College of Health and Human Services at UNH
Adviser: Alyssa O’Brien

Joanne Tsang
Vianca Wahju
Nursing
The Forest Effect: A Randomized Control Trial on the Perception of Restoration
Adviser: Gibran Mancus

Memorial Union Building, Room 334

From Whistleblowing to “Professionalism” to Bud Light: Exploring Ethics in Contemporary Organizations
Adviser and Moderator: Renee Heath

Kaylie Efstratiou
Communication, Political Science
The Ethics of Whistleblowing: A Case Study on Killer Nurse Lucy Letby

Memorial Union Building, Room 330

Impact of Culture on Social Issues
Moderator: Dylan Cordle

Anna Bergeron
Economics, International Affairs
A Nation within a Nation: Persistence of Catalan Culture
Adviser: Thomas Safford

Juhong Jin
Economics, International Affairs
South Korea Real Estate Market Crisis
Adviser: Lawrence C. Reardon

Nam Le
Political Science
Balancing Acts: Evaluating the Impact of Work-Life Policies on Japan’s Underpopulation Problem
Adviser: Lawrence C. Reardon

Finn Riccio
Political Science
Persistent Child Labor in Myanmar
Adviser: Lawrence C. Reardon

Matthew Shipley
Political Science
Housing Crisis in Asia
Adviser: Lawrence C. Reardon

Memorial Union Building, Room 332

Migration and Human Trafficking
Moderator: Thomas Safford

Johanna Clough
French, German, International Affairs
Human-Trafficking: The Growing Illicit Industry with No Borders or Limitations
Adviser: Thomas Safford

Ava Montalbano
Communication
Evaluating “Professionalism” in Modern Organizations through the Lens of Power

Anna Claire Rasmussen
Communication
Navigating Bud Light’s Controversy and the Power of Crisis Communication
Olivia Dill
International Affairs, Political Science
The Evolution of Italian Immigration Policy
Adviser: Thomas Safford

Jackson Freidberg
Political Science
Demographic Decision Making: Research on Japanese Attitudes toward Immigration
Adviser: Lawrence C. Reardon

Jason Perra
International Affairs, Spanish, Statistics
Economic Impact of Nicaraguan Migration to Costa Rica: A Data-Driven Approach
Adviser: Thomas Safford

Alexander Rapp
English/Journalism, International Affairs
Latin American Migration to the U.S. and the American Soccer Boom
Adviser: Thomas Safford

Memorial Union Building, Room 321

Multidisciplinary Session I
Moderator: Trish Kelshaw

Ande Allison
Sport Management and Leadership, Women’s and Gender Studies
Coaches’ Perceptions of Mental Health in Collegiate Athletics
Adviser: Karen Collins

Caroline Curry
Neuroscience and Behavior
Effect of an Acute Bout of Low-, Moderate-, and High-Intensity Aerobic Exercise on Immediate and Short-Term Cognitive Functioning
Advisers: Ronald Croce, Greg Spicer

Kelly Kaufmann
Exercise Science
Effects of Single-Leg Fatigue on Muscle Force Production and Vertical Jump in Female Volleyball and Basketball Players
Adviser: Summer Cook

Niko McPherson
Theatre
Community in Card Games: How Tabletop Gaming Affects Social Capital Generation
Adviser: Michele Dillon

Memorial Union Building, Room 338

Multidisciplinary Session II
Moderator: Leigh Pratt

Sarah Grace Barba
Anthropology, Classics
Negotiating Belonging: Social Class Identity and the Lived Experiences of First-Generation College Students
Adviser: Robin Sheriff

Alyssa Colandreo
Computer Science
Comic, Yet Tragic: Nikolai Gogol’s Life and Works
Adviser: Ekaterina Burvikova

Robert Hicks
Max Hytinen
Homeland Security
Sports Intelligence Capabilities
Adviser: Andrew Macpherson

Jasmine Rodriguez
Justice Studies, Sociology
Moderating Effects of Religious Coping on Depression by Race and Ethnicity among Emerging Adults
Adviser: Karen Van Gundy

Memorial Union Building, Room 340

Multidisciplinary Session III
Moderator: Andrew Ferris

Michele Adams
Wildlife and Conservation Biology
Ontogeny of Vocalizations in Adélie Penguins (Pygoscelis adeliae) Chicks from West Antarctica
Adviser: Laura Kloepper

Eleanor Cowan
English/Journalism
Memory and Memorials Symposium: Remembering Latin America from Afar
Adviser: Mauricio Pulecio

Travis Nason
History
Reframing Justice: Exploring Inequalities and Activism in Post-Apartheid South Africa
Adviser: Funso Afolayan

Isabella Thomson
Anthropology
Person to Object: Dehumanization, Violence, and Unethical Treatment of Human Skeletal Remains
Advisers: Alexander Garcia-Putnam, Samantha McCrane, Amy Michael

Memorial Union Building, Room 336
Student-Faculty Collaborative Research in the COLA/GRSIL Program
Moderator: Paul Robertston

Laura Allen
Anthropology, Earth Sciences
Critical Analysis of a Historical Museum Collection Using Modern Anthropologic Methods
Adviser: Amy Michael

Claire Hobbs
History
Hineni: The Jewish History of the New Hampshire Seacoast
Adviser: Alexis Broderick

Emily Mezick
Homeland Security, Spanish
Review of Human Trafficking Trends in the United States
Adviser: Alynna Lyon

Jillienne Robinson-Warren
Classics
Roman Women on the Move: A Latin Textbook
Adviser: R. Scott Smith

David Wilson
Classics
Ancient Myths and Cosmic Struggle
Adviser: Paul Robertson

Joy Woolley
Classics
Lost in Translation: Examining the Characterization of Briseis in Homer’s Iliad and Contemporary Retellings
Adviser: Paul Robertson
All Colleges Undergraduate Research Symposium

Poster Presentations, Session A

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

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

Christina Adamakos
Justice Studies, Neuroscience and Behavior

Siobhain Murphy
Anthropology

Health and Demography during the 1853 Yellow Fever Epidemic in New Orleans, LA Adviser: Alexander Garcia-Putnam

Charlotte Allaire
Neuroscience and Behavior

Ella Berg

Aidan Dun

Bri Lavelle

Robert LeMay

Emmy Van Dorn

Psychology

The Role of Saccadic Suppression in Target Visibility during Motion Induced Blindness Adviser: William Stine

Will Arsenault
Information Systems and Business Analytics

U.S. Foreign Policy and Its Effects on U.S. Elections Adviser: Dante Scala

Danielle Azevedo
Occupational Therapy
An Examination of the Experience of Participation in Inclusive Arts Education Programs Adviser: Sarah Smith

Anastasia BarNoy
Psychology
Perceptions of Psychiatry in Russian and American Literature Adviser: Ekaterina Burvikova

Anna Barrows
Political Science
Effect of Youth Voters on the 2024 Election Adviser: Dante Scala

Camryn Biancavilla
Political Science
How Independent Voters Voted in the 2020 Election Adviser: Dante Scala

Ryan Bonitatibus
Jaida Michetti
Ryan Nadeau

Justin Porath

Luke Reid

Nathan Seeley

Exercise Science

The Effect of Different Lifestyles on Glucose Variability over 10 Days Adviser: Michael Brian

Phil Breton
Mathematics
The Generalized Composition Operator on Bloch Spaces Adviser: Rita Hibschweiler

Felicia Cardillo
Chase Cleary
Joseph McStravick
Abigail Reynolds
Rachel Simmons
Emma York

Exercise Science

The Influence of an Acute Lifestyle Intervention on Fasting Blood Lipids in Recreationally Active, Young Adults Adviser: Michael Brian

Christopher Chase
Marine, Estuarine and Freshwater Biology

Jacob English
Environmental Conservation and Sustainability
The Nutritional Value of Stream Macroinvertebrates to Brook Trout in a Small New Hampshire Stream Adviser: Nathan Furey

Alexis Cleary
German, Linguistics
The Relation between Drag Queen Personas and the Use of Creaky Voice Adviser: Rachel Burdin

Sabby Clemmons
Electrical Engineering, French
Layers of Flavor: Tracing Cultural and Political Influences in Cuban History through Culinary Evolution Advisers: Pramila Kolekar, Lina Lee

Graham Collinsworth
Genetics
Investigating Phenotypes of Pollen Expressed Palmitoyl Transferase Mutants in Arabidopsis Adviser: Estelle Hrabak

Ella De Cesare
Political Science

Are Gun Laws Too Strict or Not Strict Enough? Adviser: Dante Scala

Cruz Dellasanta
Anthropology
Comparing Known “No Body Homicide” Cases across Databases Adviser: Amy Michael

Matthew Demarest
Justice Studies, Political Science
Do State Child Abuse and Neglect Policies Address Sibling Abuse? Adviser: Tanya Whitworth

Anthony Dempsey
Nutrition
Low Energy Availability in Collegiate Male Athletes Adviser: Jesse Stabile Morrell
Caroline Dishaw  
**Political Science**  
The United States in International Organizations  
Adviser: Dante Scala

Nicole Eustace  
**Occupational Therapy**  
Does Participation in Organized Team Sports Influence Athletic Identity in Persons with Spinal Cord Injury?  
Adviser: Gabrielle Petruccelli

Sara Forcina  
**Biochemistry, Molecular and Cellular Biology**  
Illuminating the Binding Site: Ligand-Induced Structural Changes in Human Cytosolic Proteins  
Adviser: Sean Edington

Erin Fox  
**Anthropology**  
The Economic Practice House: Digging into Women's History at UNH  
Adviser: Meghan Howey

Ava Gaudette  
**Nutrition**  
Comparing Calcium, Vitamin D, and Calorie Intakes in UNH Army ROTC Cadets with Low and Normal Bone Density  
Advisers: Maggie Dylewski Begis, Jesse Stabile Morrell

Abby Gould  
**Justice Studies, Psychology**  
Law Enforcement Investigations of Commercial Sexual Exploitation of Children (CSEC) with Unclear Commercial Elements: Implications for Understanding CSEC Prevalence and Dynamics  
Adviser: Lisa Jones

Reilly Gray  
**Communication Sciences and Disorders**  
A Review of Executive Functioning and Social Communication Supports for Neurodiverse College Students  
Adviser: Kathryn Greenslade

Sarah Guerrette  
**Exercise Science**  
Do Sustained Injuries Affect Performance?  
Adviser: Michael Brian

Kira Gusciora  
**Chemical Engineering**  
Spying on Metal Complexes: Spectral Features of Ion-Specific Binding Motifs  
Adviser: Sean Edington

Ashley Hardock  
**Occupational Therapy**  
Content Validity of the Healthy Families Profile Tool  
Adviser: Sarah Smith

Katherine Harpster  
**Neuroscience and Behavior**  
The Further Analysis of the Exploration of Misinformation through a Twitter Simulation  
Adviser: Laura Allen

Ryan Harriman  
**Political Science**  
Healthcare Attitudes  
Adviser: Dante Scala

Lauren Harrington  
**Communication Sciences and Disorders**  
Usage of Mental State Terms in Narratives Following Traumatic Brain Injury  
Adviser: Kathryn Greenslade

Delaney Hesler  
**Educational Studies**  
New Hampshire’s House Bill 544 and Its Impact on Social Studies Education  
Adviser: Elaine Marhefka

Anna Hewlett  
**Exercise Science**  
A Study Comparing Fatigue and Performance Measures in Female Collegiate Soccer Players with Global Positioning Systems and Perceived Stress  
Adviser: Michael Brian

Sam Jupin  
**Zoology**  
The 3D Reconstruction of the Hissing Organ of Gromphadorhina portentosa (Blattodea: Blaberidae)  
Adviser: Istvan Miko

Hayden Lawton  
**Marine, Estuarine and Freshwater Biology**  
Site-Specific Variability in Abundance of Coral Reef Fishes within an Urban Florida Bay  
Adviser: Nathan Furey

Elsa Le Blanc  
**Political Science**  
Exploring the Extent of Partisan Reinforcement on Social Media  
Adviser: Dante Scala

Nia Lessard  
**Ecoastronomy, Nutrition**  
Relationship between Eating Habits during Emotional Distress and Health Outcomes among College Sophomores  
Adviser: Jesse Stabile Morrell

Celia Melanson  
**Social Work**  
“The Shop Is Not Closed”: Sex and Sexuality among Older Adult Daters  
Adviser: Lauren Harris

Olivia Myers  
**Health Sciences**  
Exploring the Perceptions of High School Athletic Trainers on Social Determinants of Health and Concussion Care  
Adviser: Trish Kelshaw

Mia Pagliarini  
**Health Sciences**  
Exploring the Perceptions of College Athletic Trainers on Social Determinants of Health and Concussion Care  
Adviser: Trish Kelshaw

Khushi J. Patel  
**Political Science**  
Immigration: Attitudes toward Immigration Policies  
Adviser: Dante Scala

Nick Patrick  
**Political Science**  
The History, Ethics, and Future of Drone Warfare  
Adviser: Alyynna Lyon

Hieu Phan  
**Biochemistry, Molecular and Cellular Biology, Neuroscience and Behavior**  
How Does Ion Binding Impact Structure? An FTIR Study of Human Serum Albumin  
Adviser: Sean Edington

Ali Pogany  
**Social Work**  
Understanding the Experiences of Human Resource Professionals with Social Work Degrees  
Adviser: Melissa Wells
Olivia Pride  
Communication Sciences and Disorders  
Exploring Lexical Stress Perception: An Investigation across Varied Listener Experience with Prosody  
Adviser: Jill Thorson

Nicholas Principato  
Political Science  
The Change in Trust toward the U.S. Federal Government  
Adviser: Dante Scala

Ashley Rebelo  
Political Science  
Whom Do You Tend to Trust More: Ordinary People, Experts, or Trust Both the Same?  
Adviser: Dante Scala

Mia Rosa  
Health Sciences  
Effect of Sedentary and Obesogenic Lifestyles on Individuals’ Self-Perception of Health  
Adviser: Michael Brian

Brooke Rose  
Political Science  
Shaping Characteristics That Affect Attitudes toward Health Care  
Adviser: Dante Scala

Sonia Russell  
Justice Studies, Psychology  
How Probability of Getting Caught Affects RVB: Do Shame and Guilt Make a Difference?  
Adviser: Ellen Cohn

Sabrina Smith  
Anthropology  
The Recovery of Human Remains in New Hampshire Rivers  
Adviser: Samantha McCrane

Sana Syed  
Occupational Therapy  
Understanding the Influence of Space on Participation within Mental Healthcare and the Surrounding Community  
Adviser: Nikhil Tomar

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**All Colleges Undergraduate Research Symposium**

**Oral Presentations, Session B**

**Friday, April 26**

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

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

**Memorial Union Building, Room 330**

**Breaking Laws and Maintaining Order**

**Moderator: Jen Spindel**

**Tara Anderson**  
Business, General Studies  
Examining Ecuador’s Increasing Crime Rates  
Adviser: Thomas Safford

**Aidan Fleming**  
Homeland Security, Political Science  
Mao Zedong’s Usage of Secret Police  
Adviser: Lawrence C. Reardon

**Emeri Jacobs**  
Political Science, Women’s and Gender Studies  
The International Impact of U.S. Drug Policy  
Adviser: Mary Fran Malone

**Ryan McGrath**  
Political Science  
Is Organized Crime a Necessary Evil?  
Adviser: Lawrence C. Reardon

**Kevin Sears**  
English  
Kickbacks, Corruption, and Abe  
Adviser: Lawrence C. Reardon

**Memorial Union Building, Room 334**

**Implied Values and Interactive Patterns in Communication Case Studies**

**Moderator: R. Michael Jackson**

**Robert Briggs**  
Communication  
“Cuz” as a Practice Managing Knowledge in Interaction  
Adviser: Edward Reynolds

**Alexandra Cusson**  
Communication  
“I Guess” as a Practice within Talk  
Adviser: Edward Reynolds

**Anna Drabik**  
Communication  
The Affordances and Cultural Considerations of Blue Light Emergency Systems  
Adviser: Nora Draper

**Renee Franzini**  
Communication  
Representation of Long COVID in the News  
Adviser: Michelle Gibbons

**Pat Hussey**  
Communication, Educational Studies  
Shades of Humanity: Capturing Diversity through Photography  
Adviser: R. Michael Jackson

**Memorial Union Building, Room 332**

**Moderating Bilateral Conflicts**

**Moderator: Michael Cole**

**Amoni Dorrington**  
Homeland Security, International Affairs  
An Interlocked Dynamic: Navigating Hong Kong and China’s Relationship  
Adviser: Thomas Safford

**Kevin Finn**  
Economics, Political Science  
Rwandan Genocide: Hutu-Tutsi Relations and Its Ethnic Conflict Theory  
Adviser: Madhavi Devasher
Maddy Johnston  
International Affairs  
The Reality of Russia-China Relations  
Adviser: Thomas Safford

Eli Longa  
International Affairs, Political Science  
An Analysis of the Senkaku Island Dispute between Japan and China  
Adviser: Thomas Safford

Memorial Union Building, Room 336  

Multidisciplinary Session IV  
Moderator: Sara Withers

Christina Adamakos  
Justice Studies, Neuroscience and Behavior  
Alana Weiner  
Biochemistry, Molecular and Cellular Biology  
Analysis of Law Enforcement’s Utilization of X in the Context of Missing Persons Cases in Northern New England  
Adviser: Amy Michael

Grace Duff  
Anthropology  
Legacy Skeletal Collection, Inauspicious Documentation, and the Archaeological Mystery of the Cochecho Subadult Remains  
Adviser: Alexander Garcia-Putnam

Tess Hornbeck  
Spanish, Sustainability, Theatre  
Multilingual Melodies: Uniting Cultures through Translation in Musical Theatre  
Adviser: Lucia Montas

Hunter Motta  
Alexander Proulx  
Anthropology  
Symbolic Anthropology and Structure Versus Agency: Jimi Hendrix’s Performance of “The Star Spangled Banner”  
Adviser: Robin Sheriff

Memorial Union Building, Room 338  

Multidisciplinary Session V  
Moderator: Leigh Pratt

Ila Bartenstein  
Environmental Sciences, Sociology  
Exposure to Climate Change Knowledge and Ecoanxiety among University Students  
Adviser: Karen Van Gundy

Anish Bhojwani  
Molly Tyle  
Business Administration  
Gabriella Chiavese  
Biomedical Science, Political Science  
Caroline Cundy  
Health Management and Policy, Women’s and Gender Studies  
Caroline Dishaw  
Political Science  
UNH Model UN Changemakers in Erfurt, Germany  
Adviser: Alynna Lyon

Eryn Poulin  
English Literature  
Understanding the Impacts of COVID-19 on Group Home Staff: The Role of Burnout and Secondary Traumatic Stress  
Advisers: Mardi Kidwell, Elizabeth Moschella-Smith

MaryRose Wainaina  
International Affairs, Political Science  
Iran’s Power in Movement  
Advisers: Michael Cole, Jeannie Sowers

Memorial Union Building, Room 340  

Multidisciplinary Session VI  
Moderator: Kate Gaudet

Leia Krans  
Italian Studies, Sociology  
Ideal Love on the Silver Screen: A Content Analysis of Romantic Ideals within Rom-Coms  
Adviser: Catherine Moran

Kai Parlett  
Women’s and Gender Studies  
“Nature Made a Mistake Which I Have Corrected”: A Case for Federal Protection of Gender Expression under Free Speech  
Adviser: Marion Dorsey

Suzanne Scharff  
Sustainability, Women’s and Gender Studies  
Feminist Environmental Ethics: A Modern, Intersectional Approach  
Advisers: Jennifer Armstrong, Siobhan Senier

Joy Woolley  
Classics  
Blessing or Curse: A Novel Interpretation of the Myth of Medusa  
Adviser: Paul Robertson

All Colleges Undergraduate Research Symposium  

Poster Presentations, Session B

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

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.

Charlotte Allaire  
Neuroscience and Behavior  
Ella Berg  
Aidan Dun  
Bri Lavelle  
Robert LeMay  
Emmy Van Dorn  
Psychology  
The Role of Saccadic Suppression in Target Visibility during Motion Induced Blindness  
Adviser: William Stine
Anna Anderson  
Political Science  
The Effects on Ideology from Education  
Literature Review  
Adviser: Dante Scala

Lucas Anderson  
Marine, Estuarine and Freshwater Biology  
Density Dependent Calling Behavior in North Pacific Humpback Whales  
Adviser: Michelle Fournet

Natalie Aston  
Neuroscience and Behavior

Jane Eidelman  
Biomedical Science  
Social Preferences and Helping Behavior in Rats  
Adviser: Brett Gibson

Shay Belisle  
Political Science  
Factors That Most Influence Political Party  
Adviser: Dante Scala

Ella Bender  
Art: Studio Art  
*Dia de los Muertos: The Cultural History of Sugar Skulls*  
Adviser: Amy Trueworthy

Ava Bernier  
Justice Studies, Political Science  
Sex and Gender Identity and Its Effect on Discrimination  
Adviser: Dante Scala

Alexandra Billgert  
Emily Hopkins  
Madeline Meyers  
Kyra Woodward  
Psychology  
Observing Associations among Body Awareness Measures  
Adviser: Jolie Wormwood

Ryan Bonitatibus  
Exercise Science  
Assessing Sleep Metrics and Their Relation with 24h Brachial and Central Blood Pressure  
Adviser: Michael Brian

Phil Breton  
Mathematics  
The Generalized Composition Operator on Bloch Spaces  
Adviser: Rita Hibschweiler

Matthew Brooks  
Political Science  
Attitudes on Immigration and Effects of Political Identification  
Adviser: Dante Scala

Emily Buehne  
English, Philosophy  
Feline Femininity: Women and Madness in “The Eyes of the Panther” by Ambrose Bierce  
Adviser: Robin Hackett

Mackenzie Caron  
Ella Dulac  
Ryan McGlynn  
Meghan Silk  
Jennifer White  
Katie Wright  
Exercise Science  
The Relationship between Cardiometabolic Health and Perception of Health in Young Adults  
Adviser: Michael Brian

Trevor Chapman  
Biochemistry, Molecular and Cellular Biology  
Makram Elkhach  
Investigating the Effect of Gli2 on IgM in Waldenstrom’s Macroglobulinemia  
Adviser: Sherine Elsawa

Kyara Crespo Gutierrez  
French, Genetics  
Determining the Effects of Acetylation and Deacetylation of H3K56 on Embryonic Stem Cell Stemness  
Adviser: Feixia Chu

Sarah Curfman  
Health Sciences  
Investigating Emergency Service Use among Children with Autism Spectrum Disorder and Mental Health Needs  
Adviser: Joan Beasley

Owen Daigle  
Exercise Science  
Assessing H:Q Ratios during Muscular Fatigue in Female Collegiate Athletes  
Adviser: Summer Cook

Jenna DeVincenzo  
Anna Hewlett  
Kelly Kaufmann  
Brooke Rikkers  
Gabby Smith  
Exercise Science  
The Effects of Lifestyle Modifications in Recreationally Active Young Adults on Respiratory Exchange Ratio during Exercise  
Adviser: Michael Brian

Gabe Dennett  
Exercise Science  
A Developmental Model Studying Blood Glucose Variability When Active Young Adults Assume an Obesogenic Lifestyle  
Adviser: Michael Brian

Bailey Dickman  
Political Science  
How Political Information on the Internet Affects Political Polarization  
Adviser: Dante Scala

Katelyn Ferguson  
English/Journalism, Political Science  
Countries’ Attitudes toward Whether or Not Illegal Immigration Has Any Impact on Crime Rate  
Adviser: Dante Scala

Sara Forcina  
Biochemistry, Molecular and Cellular Biology  
Illuminating the Binding Site: Ligand-Induced Structural Changes in Human Cytosolic Proteins  
Adviser: Sean Edington

Erin Fox  
Anthropology  
The Economic Practice House: Digging into Women’s History at UNH  
Adviser: Meghan Howey

Corwin Freedman  
Biology, Classics  
Understanding Gaps in the Knowledge of Equus caballus Genomic History  
Adviser: David Plachetzki

Dominic Froio  
Political Science  
How Immigration Will Affect Job Security on Citizens  
Adviser: Dante Scala
Ashley Gallezzo  
Homeland Security  
Avery Hawkom  
Homeland Security, Russian  
Popular Ideas about Soviet Prisons vs. Prison Reality in the Stories by V. Shalamov  
Adviser: Ekaterina Burvikova  

Savannah Gibson  
Political Science  
War in the Digital Age: An Analysis of Social Media Exploitation and Disinformation Campaigns by ISIS, Israel, and Hamas  
Adviser: Alyynna Lyon  

Jemma Glenn Wixson  
Neuroscience and Behavior  
Investigating Neuronal Hierarchy of Primary Cilia Conditional Knockout Mice Using in vivo Imaging and C-Fos Staining  
Adviser: Xuanmao Chen  

Nate Goodwin  
Exercise Science  
Examining the Relation between Body Composition and Substrate Utilization Following Reduced Exertion High-Intensity Interval Training  
Adviser: Michael Brian  

Chris Gyurcsan  
Political Science  
Should Spending on Public Schools Be Increased?  
Adviser: Dante Scala  

Abaigeal Hughes  
Communication Sciences and Disorders  
The Use of Functional Near-Infrared Spectroscopy to Understand Brain Activity in Motor Learning in Augmentative and Alternative Communication Users  
Adviser: Kay Chen  

Sam Jupin  
Zoology  
The 3D Reconstruction of the Hissing Organ of Gromphadorhina portentosa (Blattodea: Blaberidae)  
Adviser: Istvan Miko  

Ahilya Sudarshan Kadba  
Biology  
Investigating the Effect of Interferon Gamma on LPS-Induced GLI3 Expression  
Adviser: Sherine Elsawa  

Margo Kamis  
Ecogastronomy, Nutrition  
Comparing Skin Carotenoid Measures among College Students Following Gluten-Free, Vegetarian, and Low-Carbohydrate Diets  
Adviser: Jesse Stabile Morrell  

Paige Kaufman  
Neuroscience and Behavior, Psychology  
People ≠ Men Bias across Languages  
Adviser: April Bailey  

Hailey Keel  
English, Italian Studies  
Get Inked! How Tattoo Culture Has Been Changing in the 21st Century  
Adviser: Lisa Miller  

Liberty Laorman  
Women's and Gender Studies  
Katniss Everdeen, the Girl Who Cries: A Book-to-Film Comparison on Female Subjectivity and Corrupt Government Using Althusser's Ideological State Apparatus in The Hunger Games  
Adviser: Mauricio Pulecio  

Nikhila Lampman  
Environmental Engineering  
Infrastructure Indicators of Public Health in Coastal Communities  
Adviser: Semra Aytur  

Erin Luckern  
Psychology  
Of Minds and Men: Androcentric Biases in Perceptions of Artificial Intelligence  
Adviser: April Bailey  

Ava Maddox  
Jackson Mazejka  
Tess Reid  
Jayda Vazquez  
Psychology  
Does Fear Have Effect on Reactions to Uncertainty? A Semantic Priming Study  
Adviser: Jolie Wormwood  

Nicole Marcotte  
Animal Science  
Investigation of the Causative Agent of Canine Leproid Granuloma Infection Cases in Seacoast New England  
Adviser: Jacqueline Marr  

Sophia Maselli  
Political Science  
How Religion Influences the Public Opinion and Support of the U.S. Supreme Court  
Adviser: Dante Scala  

Jack McDonough  
Political Science  
How Religion Affects Party Identification  
Adviser: Dante Scala  

Niko McPherson  
Theatre  
Valorizing Violence: Understanding the Psychology Motivating Misogynistic Ideologies  
Adviser: April Bailey  

Kegan Messmer  
Italian Studies, Linguistics, Russian  
N-Gram Text Classification on Standard Croatian, Bosnian and Serbian  
Adviser: Rachel Burdin  

Brendan Moody  
Geography  
Washed Away: Manufactured Housing Communities and Flood Risk  
Adviser: Mary Stampone  

Jeremiah Moore  
Political Science  
Do Americans Trust Their Government?  
Adviser: Dante Scala  

Amanda Newport  
Zoology  
New Host-Parasitoid Interaction: Baeus (Hymenoptera: Scelionidae) Parasitizing Ray Spider Eggs (Aranei: Theridiosomatidae)  
Adviser: Istvan Miko  

Sam Oppel  
Political Science  
The Importance of Political Party Identity in the U.S. and Its Effects on How People View Government Policies  
Adviser: Dante Scala  

Olivia Parker  
Human Development and Family Studies  
The Heart’s Language: Vulnerability as the Foundation of Authentic Love  
Adviser: Tyler Jamison
Nick Patrick
Political Science
The History, Ethics, and Future of Drone Warfare
Adviser: Alyna Lyon

Jasmine Rodriguez
Justice Studies, Sociology
Religious Coping and the Black-White Paradox in Mental Health among Emerging Adults
Adviser: Karen Van Gundy

Sophia Roy
Neuroscience and Behavior, Zoology
Investigation of the Effects of Ocean Acidification on Juvenile Lobster Feeding Behavior and Chemoreception
Adviser: Brittany Jellison

Jelena Rutter
Animal Science
Trophy Hunting and Conservation: A Review of the Relationship between Wildlife Management for Trophy Hunting and Conservation Efforts in Namibia
Adviser: Andrew Conroy

Nev Sanford
Political Science
Relations between Extremist Political Ideologies and External Influences
Adviser: Dante Scala

Kay Sassan
Sociology, Women’s and Gender Studies
Sibling and Peer Aggression: A Call for Interventions that Address All Types of Bullying
Adviser: Tanya Whitworth

Lilly Smith
Health Sciences
The Impact of Expanded Language Interpretation Services Post Executive Order 13166 on Maternal and Fetal Outcomes of Non-English Speaking Patients
Adviser: Hyun Ju Kim

Jodi Stetser
Genetics
Exploring Variation in the Inclusion Efforts of UNH-4U Student Support Peer Staff on the UNH Campus
Adviser: Ariel Schwartz

Anthony Theos
Human Development and Family Studies, Psychology
5 Love Languages
Adviser: Tyler Jamison

Paul Warznak
Political Science
How Americans View Congress
Adviser: Dante Scala

Alexander White
Political Science
Attitude toward Split Government Based upon Political Party
Adviser: Dante Scala

Andrew Widdekind
Homeland Security
Our Nation’s Resiliency When Combating Natural Disasters
Adviser: Sonic Woytonik

Amanda Wittemann
Neuroscience and Behavior
Assessing Delay Discounting in College Students: The Roles of Stress and Mental Health Symptomology
Adviser: Jolie Wormwood

Memorial Union Building, Room 332

Environmental Issues and Deception
Moderator: Jeannie Sowers

Yazan Alhamdan
Political Science
Derna: A Preventable Catastrophe
Adviser: Jeannie Sowers

Olivia Dill
International Affairs, Political Science
Climate Change: The New Driver of Forced Migration
Adviser: Mary Fran Malone

John Lombardi
Political Science
In Deep Waters: A Study on the Overfishing of Bluefin Tuna
Adviser: Lawrence C. Reardon

Jeremiah Moore
Political Science
China: A Study of Propaganda
Adviser: Lawrence C. Reardon

Charlotte Nadalin
Geography, International Affairs
The Clothes of the Dead Westerners
Adviser: Thomas Safford

Memorial Union Building, Room 334

How Gender Matters in the Context of Work and Family
Moderator: Michelle Gibbons

Samantha Boisvert
Communication
Promotional Barriers for Women in the Workplace
Adviser: Jennifer Borda

Megan Kimball-Rhines
Communication, Women’s and Gender Studies
Breaking Barriers: Examining Lactation Access in Higher Education Institutions
Adviser: Jennifer Borda
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<th>Adviser</th>
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<tr>
<td>Evie Wiechert</td>
<td>Communication</td>
<td>Understanding Gender in Social Institutions: Public Bathrooms as a Symbol of the Gender Binary</td>
<td>Jennifer Borda</td>
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<td>Moderaotr: Daphne Chevalier</td>
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<td>Bernadette Farmer</td>
<td>Economics, Spanish</td>
<td>The Economic Impacts of Digital Nomads in Medellín, Colombia</td>
<td>Reagan Baughman</td>
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<td>Kyle Nord</td>
<td>Anthropology, Classics</td>
<td>Rebuilding the Romans: Using 3D Modeling to Reconstruct the Library of Celsus</td>
<td>Tejas Aralere</td>
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<td>Ginger Schoff</td>
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<td>Perceptions of Crime and State Legitimacy in Rural Brazil</td>
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<td>Moderator: Kathyne Brewer</td>
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<td>Sadie Chaffin</td>
<td>Justice Studies, Psychology</td>
<td>Unveiling Potential Gender Differences in Prosocial Versus Antisocial Rule-Violating Behavior</td>
<td>Ellen Cohn</td>
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<td>Caitlyn Colavita</td>
<td>Homeland Security, Justice Studies</td>
<td>Threat Group Intelligence Capabilities</td>
<td>Andrew Macpherson</td>
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<td>Mary Condon</td>
<td>Analytical Economics</td>
<td>Investigating Skilled Nursing Facility Ownership's Relationship to Quality of Care in the State of New Hampshire</td>
<td>Esmaeil Bahalkeh</td>
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<td>Sydney Seaver</td>
<td>Linguistics</td>
<td>I2 Learners’ Perception of Mandarin Affricates and Fricatives</td>
<td>Sean Madigan</td>
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<td>Zoe Werth</td>
<td>Biomedical Science, German</td>
<td>Understanding East Germany’s Development of Operative Psychology through the Lens of Gedenkstätte Berlin-Hohenschönhausen</td>
<td>Charles Vannette</td>
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<td>Moderator: Emily Pratt</td>
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<td>French, Genetics</td>
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<td>Georgia Gempler</td>
<td>Neuroscience and Behavior</td>
<td>The Effects of Contrast on Motion Induced Blindness and Perceptual Filling-In</td>
<td>William Stine</td>
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<td>Emily Komerska</td>
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<td>Caleb Marrero</td>
<td>Health Sciences</td>
<td>Epidemiology of Concussions among Collision Sport Status in Middle School Athletes</td>
<td>Trish Kelshaw</td>
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<td>Siobhain Murphy</td>
<td>Anthropology</td>
<td>The Effects of Occupational Markers on Age Estimation in Working Class Decedents</td>
<td>Samantha McCrane</td>
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<td>Exploring Variation in the Inclusion Efforts of UNH-4U Student Support Peer Staff on the UNH Campus</td>
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<td>Moderator: Corlige Green</td>
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<tr>
<td>Samuel Byrom</td>
<td>International Affairs, Political Science</td>
<td>Japanese Plutonium Reserves: Nuclear Fuel or WMDs</td>
<td>Lawrence C. Reardon</td>
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<tr>
<td>Amoni Dorrington</td>
<td>Homeland Security, International Affairs</td>
<td>The Umbrella: A Humble Shield against Authority</td>
<td>Lawrence C. Reardon</td>
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<tr>
<td>Isabel Dreher</td>
<td>English/Journalism, Political Science</td>
<td>International Weapons Monitoring: Tracking the Flow of Arms in Ukraine and Central America</td>
<td>Jen Spindel</td>
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<tr>
<td>Sullivan Kimball</td>
<td>Political Science</td>
<td>Unrest in China’s Rural and Periphery Areas</td>
<td>Lawrence C. Reardon</td>
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Peter T. Paul College of Business and Economics Undergraduate Research Conference

Poster Session I

Friday, April 26
9–10:30 a.m.
Paul College

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

ECON 774: Bachelor of Arts in Economics

Adviser: Reagan Baughman

Stav Alkalay
Economics
Debt Dynamics: The Impact of High Government Debt on Economic Growth

Matthew Beford
Economics
The Economic Effects of Student Debt Cancellation

Jacob Buban
Economics, Finance
Health in the United States: The Effects of Income Inequality

James Cranmer
Economics, English/Journalism, International Affairs
Comparing Approaches to Poverty Reduction in Developing Countries

Matthew Darby
Economics, Finance
Impact of Medicare for All on Health Care Costs: Does it Really Save Money?

Gregory Fallon
Economics, Finance
Mortgages in Motion: Analyzing the Effects of Interest Rates on the Housing Market

Bernadette Farmer
Economics, Spanish
The Economics of Medicare for All: Impacts on Healthcare Outcomes and Quality

John Hagan
Economics
The Economic Impacts of NAFTA on GDP and Growth

Nicholas Jacobs
Economics
The Effect of Educational Attainment on Health

Jacob McGuire
Accounting, Economics
Causes and Effects of the Greek Financial Crisis of 2009

David Perelmuter
Economics
How Does the Current Housing Crisis Affect Economic Growth in China?

Matt Rittenberg
Economics
Education and Crime: The Role of Human Capital

Belle Ritzo
Economics
The Effect of an Aging Population on the U.S. Federal Budget

Carter Sherman
Economics
The Ongoing Effects of COVID-19 on the U.S. Labor Market

Graham Weisberg
Economics
Assessing the Impact of Cigarette Taxes: Smoking Reduction, Health Outcomes, and Tax Efficiency

ECON 775: Bachelor of Science in Analytical Economics

Mody Abdel-Salam
Analytical Economics
What Is Causing Growth in Food Prices?
Adviser: Aziz Saglam

Giovanni Ciardiello
Analytical Economics
Economic Effects of Immigration
Adviser: Aziz Saglam

Brooke Conroy
Analytical Economics
The Effect of Unions on Wage Inequality
Adviser: Aziz Saglam

Brennan Dwyer
Analytical Economics
Literature Review on Economics Involving Machine Learning
Adviser: Bingjin Xue

Laura Earle
Analytical Economics
The Evolving Electricity Generation Mix
Adviser: Aziz Saglam

Nicholas Fuller
Analytical Economics, Educational Studies
Why Do We Undervalue Education?
Adviser: Aziz Saglam

Sarah Glennon
Analytical Economics
What Causes Obesity?
Adviser: Aziz Saglam

Samuel Gobeil
Analytical Economics, Sustainability
Renewable Energy: Costs and Benefits
Adviser: Aziz Saglam

Olivia Graves-Witherell
Analytical Economics
Student Loan Payments and Economic Growth
Adviser: Aziz Saglam

Zack Leduc
Analytical Economics
Implications of Suez Canal Blockage on Global Trade
Adviser: Aziz Saglam
Braden McDonnell  
Analytical Economics, Sustainability  
Longevity and Life Cycle Savings  
Adviser: Aziz Saglam

Andrew Otersen  
Analytical Economics, Sustainability  
The Productivity-Pay Gap  
Adviser: Aziz Saglam

Thomas Pattison  
Analytical Economics  
Factors That Affect Electricity Prices in New England  
Adviser: Aziz Saglam

Hanlon Paul  
Analytical Economics  
Interest Rates and National Debt  
Adviser: Aziz Saglam

James Schneider  
Analytical Economics  
Higher Education and Economic Growth  
Adviser: Aziz Saglam

Michael Siemering  
Analytical Economics  
Factors Influencing Our Belief System  
Adviser: Aziz Saglam

Dylan Stiles  
Analytical Economics, Statistics  
Risk Factors for Pitchers’ Injuries  
Adviser: Aziz Saglam

Patrick Walker  
Analytical Economics  
The Impact of Flooding on Road Transport  
Adviser: Aziz Saglam

Tyler Wittmann  
Analytical Economics  
How Electric Vehicles Are Reshaping Labor Markets  
Adviser: Aziz Saglam

Daniel Gottschalk  
Ecogastronomy, Marketing  
From Seed to Soil: A Floral Composting Endeavor  
Adviser: Daniel Winans

Isabella Hart  
Ecogastronomy, Fine Arts  
Pisco to Pescado: Painting Peruvian Food  
Advisers: Daniel Winans, Liese Zahabi

Jenna Meyer  
Ecogastronomy, Wildlife and Conservation Biology  
Consumer Choice in the Chocolate Industry: How Can We Make a Difference?  
Adviser: Daniel Winans

Ella Norenberg  
Ecogastronomy, Psychology  
Supper Club: Food, Community, Conversation  
Advisers: Laila Hammam, Daniel Winans

Samuel Seibert  
Biomedical Science, Ecogastronomy  
Micro-Breweries, Macro Waste  
Adviser: Daniel Winans

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

**Poster Session II**

**Friday, April 26**

**11 a.m.–12:30 p.m.**

**Paul College**

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

**Ecogastronomy**

Sydney Barringer  
Ecogastronomy, Environmental Conservation and Sustainability  
The Morals of Meat: Comparing the History of Vegetarianism in India and the United States  
Adviser: Daniel Winans

Madeline Beaton  
Ecogastronomy, International Business and Economics  
Exploring Seasonal and Local Food on the Seacoast  
Adviser: Daniel Winans

Molly Bonczek  
Ecogastronomy, Environmental Conservation and Sustainability  
Veggie-GO: Connecting Local Farms to Durham through Community Supported Agriculture  
Adviser: Daniel Winans

Ryan Femino  
Communication, Ecogastronomy  
Discovering Durham: Exploring Local Eateries  
Adviser: Daniel Winans

Ella Dudley  
Business Administration  
Financial Decisions in the World of Student Athletes  
Adviser: Richard Kilbride

Grace Harbour  
Finance  
The Evolution of Drug Pricing Legislation  
Adviser: Steve Irlbeck

Brendan Kelly  
Finance, Information Systems and Business Analytics  
Seeking Alpha in Sustainable Investment Strategies  
Adviser: Richard Kilbride

Emily Lynch  
Accounting, Spanish  
Environmental Taxation in Spain: Policy and Practice  
Adviser: John Hasseldine

**Multidisciplinary/Honors Track I: Accounting and Finance**

Ella Dudley  
Business Administration  
Financial Decisions in the World of Student Athletes  
Adviser: Richard Kilbride

Grace Harbour  
Finance  
The Evolution of Drug Pricing Legislation  
Adviser: Steve Irlbeck

Brendan Kelly  
Finance, Information Systems and Business Analytics  
Seeking Alpha in Sustainable Investment Strategies  
Adviser: Richard Kilbride

Emily Lynch  
Accounting, Spanish  
Environmental Taxation in Spain: Policy and Practice  
Adviser: John Hasseldine
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<th>Name</th>
<th>Major</th>
<th>Title</th>
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<tr>
<td>Sean Lynch</td>
<td>Finance</td>
<td>Artificial Intelligence in Stock Analysis and Portfolio Building</td>
<td>Jonathan Nash</td>
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<tr>
<td>Lilie Murray</td>
<td>Accounting, Finance</td>
<td>Understanding Large Accounting Firm Perceptions on the Decline of Accounting Graduates and Implications of Supply Shortages</td>
<td>Linda Ragland</td>
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<td>Jackson O’Connell</td>
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<td>Anthony Sanville</td>
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<td>Comparative Analysis of Latvia and Montenegro with Regards to EU Status</td>
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<td>Carley Dahlstrom</td>
<td>Business Administration</td>
<td>Understanding Neurodiversity and Executive Disfunction to Discover</td>
<td>Kimberly France</td>
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<td>Joseph Driscoll</td>
<td>Marketing</td>
<td>Looking for the Answer: Exploring the Choice Between AI and Search Engines</td>
<td>Thomas Gruen</td>
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<td>Emma Farnham</td>
<td>Finance, Information Systems and Business Analytics</td>
<td>Between the Lines and Reports: Bridging Literary AI Insights with Corporate Perspectives</td>
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<td>Nicholas Fuller</td>
<td>Analytical Economics, Educational Studies</td>
<td>Green Jobs in New England</td>
<td>Robert Mohr</td>
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<tr>
<td>Olivia Graves-Witherell</td>
<td>Analytical Economics</td>
<td>The Effects of Temperature on National Park Visitation Rates</td>
<td>Stephanie Brockmann</td>
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<tr>
<td>Aidan Hughes</td>
<td>Information Systems and Business Analytics</td>
<td>An Analytical MLB Realignment Proposal</td>
<td>Peter Zaimes</td>
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<tr>
<td>Jake MacInnis</td>
<td>Information Systems and Business Analytics</td>
<td>College Sports as a Business: How Name, Image, and Likeness Deals Have Altered the Way Colleges Operate</td>
<td>Peter Zaimes</td>
</tr>
<tr>
<td>Caroline McCarthy</td>
<td>Marketing</td>
<td>AI Synthetic Voice and Celebrity Images</td>
<td>Diane Devine</td>
</tr>
<tr>
<td>Alyssa Morrison</td>
<td>Information Systems and Business Analytics, Sustainability</td>
<td>The Future of Building: How 3D Printing Will Impact the Construction Industry</td>
<td>Russell Miles</td>
</tr>
<tr>
<td>Olivia O’Connor</td>
<td>Marketing</td>
<td>Same, Same, but Different: Can Cosmetic ‘Dupes’ Equate to the Real Thing with the Rise of Social Media Marketing?</td>
<td>Peter Masucci</td>
</tr>
<tr>
<td>Courtney Vincent</td>
<td>Information Systems and Business Analytics, Marketing</td>
<td>Chatbots: How the Top Brands Utilize Them</td>
<td>Moein Khanlari</td>
</tr>
<tr>
<td>Lea Wenaas</td>
<td>Business Administration</td>
<td>Navigating Turbulence: Analyzing the Immediate Aftermath of Disruption</td>
<td>Andrew Earle</td>
</tr>
<tr>
<td>Ayrika West</td>
<td>Marketing</td>
<td>The Critical Role of Authenticity in Influencer Marketing: Navigating Tensions between Consumers and Businesses</td>
<td>Alex LaBrecque</td>
</tr>
<tr>
<td>Jamison White</td>
<td>Economics</td>
<td>The Impacts of NIL Agreements on Student-Athlete Mental Health and Team Perception</td>
<td>Scott Lemos</td>
</tr>
<tr>
<td>Jocelyne Bisson</td>
<td>Marketing, Political Science</td>
<td>Consumer Preference and Politics Polarization in the U.S. Two-Party System</td>
<td>Bruce Pfeiffer</td>
</tr>
<tr>
<td>Jillian Cookinham</td>
<td>Economics</td>
<td>Long Term Standard of Living in the United States</td>
<td>Aziz Saglam</td>
</tr>
<tr>
<td>Multidisciplinary/Honors Track II: Other</td>
<td></td>
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</tbody>
</table>
Peter T. Paul College of Business and Economics
Undergraduate Research Conference

Oral Session I

Friday, April 26
12–1:30 p.m.
Paul College

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

Marketing Workshop Presentations

Adviser: Peter Masucci

Emily Alberigo
Michael Picciuto
Marketing

Axel Barretto Rodriguez
Entrepreneurial Studies, Marketing

Brianna Legros
Ian Lidster
Finance, Marketing

ETAP: Research Market Opportunities and Develop New Product Introduction Marketing Programs for This Greenland, NH, Maker of an Online Estimated Tax Payment App

Nicolette Allen
Joseph Driscoll
Joanna Romneos
Marketing

Hayden Dahl
Information Systems and Business Analytics, Marketing

Jacqueline Law
Communication, Marketing

Noah Shatzer
Finance, Marketing

Baker Newman Noyes: Conduct Research and Develop Marketing Programs to Assist in Recruiting Staff for This Portland, Maine, Accounting Firm

Eric Anderson
Jonathan Borsari
Charlotte Johnson
Olivia Secontine
Marketing
Sophia Newman
Management, Marketing
Caleigh Patterson
International Business and Economics, Marketing

Northeast Credit Union: Design and Develop Marketing Programs Aimed at Increasing Awareness of and Attracting New, Younger Customers to This NH Regional Financial Institution

Max Anderson
Carolyn Garofoli
Cole Giannasca
Abel Ravencraft
Marketing
Allison Ivers
Entrepreneurial Studies, Marketing

Dangles: Research Opportunities for Market Expansion and Develop Marketing Programs to Grow Sales for this Hampton, NH, Ice Hockey Accessories Company

Isabella Barden
Jack Duffin
Thomas Flanagan
Michael Nassif
Marketing
Delaney Cunningham
Entrepreneurial Studies, Marketing

Victoria Kennedy
Management, Marketing
Timberland PRO: Research, Design, and Develop Marketing Programs Aimed at Increasing Awareness and Sales of Working Apparel for This NH-Based Manufacturer of Footwear and Apparel

Olivia Bean
Peyton Howell
Lindsey Murphy
Jenna Tuden
Marketing
Daniel Gottschalk
Ecogastronomy, Marketing

Nikolai Jenson
Finance, Marketing
FEMA — Fire Is Everyone’s Fight (FIEF): Assess through Research the Level of Awareness Fire Danger and the FIEF Initiative among College-Aged Students, and Design Marketing Campaign That Addresses This Target Audience

Angelina Bisson
Kaitlin Collins
Sophia Pagliazzo
Michael Paulauskas
Marketing
Madison Davine
Marketing, Sustainability

Tyler Tang
Management, Marketing

SunStations: Conduct Research into Business Opportunities for This Start-Up Company Providing Mobile Solar-Powered Charging Stations for Electric Vehicles, and Prepare Market Awareness Programs

Jocelyne Bisson
Marketing, Political Science

Taylor Burgess
Management, Marketing

Alexander Durant
Moe Festa
Cameron Hall
Marketing

On Belay: Design and Develop Marketing Programs Aimed at Increasing Awareness of and Support for this Newmarket, NH, Non-Profit Organization That Provides Experiential Support Services to People Impacted by a Family Member’s Cancer Diagnosis
Ali Bonadies  
Entrepreneurial Studies, Marketing  
Nolan Duffy  
Devin Rooney  
Ciera Schwarzer  
Marketing  
El McLaughlin  
Marketing, Spanish  
Edyn Winter  
Marketing, Sustainability  
Hamel Honors and Scholars College: Research, Design, and Develop Marketing Programs to Support the Launch of This New UNH College

Chloe Coldwell  
Sydney Daley  
Miles Wharton  
Marketing  
Sean Hanrahan  
Information Systems and Business Analytics, Marketing  
Ashley Phillips  
Kinesiology, Marketing  
Jadyn Raftery-Smart  
Management, Marketing  
Kikori: Research and Develop Marketing Programs Aimed at Increasing Awareness and Purchases of This Educational App Focused on Social Emotional Learning

Kiley Collins  
Autumn Frazier  
Ryan Johnston  
Lauren Kirby  
Emma Pixley  
Marketing  
Natalie Ouellette  
Management, Marketing  
Spa Medique: Create New Marketing Programs to Help This Established Londonderry, NH, Business Attract and Grow New Clients

Conor Considine  
Finance, Marketing  
Nicholas Dionne  
Megan Goodridge  
Jack Hennings  
Finnbarr Kiernan  
Maggie Peterson  
Marketing  
Paul College Undergraduate Advising: Research, Design, and Develop Marketing Programs to Improve the Course Registration Process

Luke Curtis  
Juliana France  
Alyson Mooney  
Jordan Page  
Brenna Skerry  
Marketing  
Chloe DeLuca  
Management, Marketing  
Insta-Staff: Explore Market Opportunity and Develop Marketing Programs for This NH Agency That Supplies Nurses to Medical and Support Services Providers

Matthew Darwin  
Keegan Mayer  
Libby Moreau  
Mary-Katherine Riley  
Ayrika West  
Marketing  
Hayley Oliver  
Management, Marketing  
Faded to Fabulous: Research Market Opportunity and Develop Marketing Programs for this NH Start-Up Company That Provides Consulting and Support Services to Women Dealing with Menopause

Michael Foohey  
Mitchel Gagnon  
Finance, Marketing  
Gabrielle Hayden  
Ashley Martin  
Emma Ressler  
Marketing  
Luke Piers  
Information Systems and Business Analytics, Marketing  
Menadena: Research and Develop Target Customer Personas and Associated Marketing Programs for This Keene, NH, Technology Services Broker

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

Poster Session III

Friday, April 26  
1–2:30 p.m.  
Paul College

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

DEI at UNH

Adviser: Jennifer Griffith

Felicia Blodgett-Duran  
Psychology  
Workplace Attitude and Gratitude: How Inclusion in the Workplace Can Impact Organizational Citizenship Behaviors

Delaney Carroll  
Tony DiFruscio  
Derek Maggion  
Chavonne Truter  
Management  
The Roles of Geography, Demographics, and Financial Aid Need on Students’ Admission and Transfer Decisions

Megan Charron  
Management  
Mackenzie Larrabee  
Communication  
Keira Lydon  
Accounting, Management  
Riley Orcutt  
Business Administration  
The Relationship of Talent Development Programs: Undergraduate and Postgraduate
Erin Collins  
Accounting  
Sophie Heusser  
Management  
Hayley Oliver  
Rachel Poston  
Management, Marketing  
Paul College Organizational Climate

Carley Dahlstrom  
Business Administration  
Charlie Hart  
Rachel Wells  
Management  
Isaac Stevens  
Analytics and Data Science  
Exploring the Intersections of Disabilities, Gender, and Technology at UNH

Cameron Dolbec  
Myles Kierstead  
Management  
Margaret Gerard  
Marketing  
Kaitlin O’Brien  
Psychology  
Comparing Academic Achievement Scores of Accepted vs. Enrolled Students at UNH

Sheila El-Azem  
Management, Marketing  
Olivia LaRose  
Management, Sustainability  
Braden LaSpisa  
Business Administration  
Mason Simione  
Entrepreneurial Studies  
The Role of Undergraduate Engagement on Campus in Predicting Career Success

Paige Labonville  
Management  
Unlocking Diversity: Tapping into Manchester, NH, for Student Recruitment at UNH

Christina Merchant  
Tyler Tang  
Management, Marketing  
Bridget Petti  
Psychology  
Jack Singer  
Sport Management and Leadership  
Leveraging First Destination Data for College Recruitment

Rachel Wells  
Management  
Paul College Perspectives: Understanding the Intersectionality of Marginalization and Mental Health in the Workplace

Economics of Climate Change  
Adviser: Robert Mohr  
Daisy Burns  
Economics, Sustainability  
Steffen Knouff  
Ryan Murphy  
Environmental and Resource Economics  
Mexico’s Emissions Trading Scheme: A Description and Economic Analysis

Kara Cataldo  
Ria Talwar  
Analytical Economics  
Gretchen Greene  
Environmental and Resource Economics  
China’s Battle against Climate Change: An Economic Analysis of China’s CO2 Emissions Trading System

Giovanni Ciardiello  
Analytical Economics  
William MacGregor  
Beau Normandeau  
Economics  
The European Union Emissions Trading Scheme and Its Impact on Greenhouse Gas Emissions

Alec Ferrante  
Durga Raja  
Environmental and Resource Economics, Sustainability  
Graham Weisberg  
Economics  
The Inflation Reduction Act: Analyzing Energy Subsidies and Their Expected Impact on Emissions Reductions

Kevin Finn  
Economics, Political Science  
Carley Markward  
Analytical Economics  
Grace Young  
Environmental and Resource Economics  
California’s Cap and Trade System for Greenhouse Gases

Nicole Jarocki  
Environmental and Resource Economics, Psychology  
Sofia Menyalkin  
Analytical Economics  
Teddy Norton  
Economics  
Balancing Economy and Environment: New Zealand’s Cap and Trade Strategy

Miles Keefe  
Geography, Sustainability  
Liam Mack  
Mathematics  
Matthew Mack  
Environmental and Resource Economics

Assessing the Regional Greenhouse Gas Initiative

Ryan Nickerson  
Environmental and Resource Economics  
Matt Rittenberg  
Economics  
Nick Roscoe  
Economics, Finance  
An Analysis of Carbon Taxation in Canada
The Naked Arts—Creativity Exposed!

Act III

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

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

Maeve Flusser
English
Poetry Inspired by the Headliners of the 2024 Nossrat Yassini Poetry Festival: A Chapbook Written by Maeve Flusser
Adviser: Danielle Jones

Bethany Kimball
Music, Psychology
Dementia, Music, and Hope: The Transformative Effect of Music on the Lives of Those Living with Dementia
Adviser: Rose Pruiksma

Kaci Kneeland
Theatre
The Wendybird
Adviser: Tom Alsip

Tobias Laber-Smith
Philosophy, Theatre
A Brief History of the Concept Musical
Adviser: Tom Alsip

Kevin McDonough
Theatre
Lighting Design for “Factory Girls: A New Musical”
Adviser: Szu-Feng Chen

Maddy Randall
English, French
A Light in the Darkness
Adviser: Thomas Payne

Samantha Rizzo
Theatre
Born This Way
Adviser: Tom Alsip

Elisabeth Schwarze
Theatre
Designing Titania in an Edwardian Inspired “A Midsummer Night’s Dream”
Advisers: Victoria Carot, Szu-Feng Chen

Psychology Department
George M. Haslerud Undergraduate Research Conference

Friday, April 26
1–3 p.m.
McConnell Hall, Room 220

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

Danielle Ferrante
Psychology
Reminiscence Bumps for Emotional Life Events
Adviser: Michelle Leichtman

Courtney Goodwin
Psychology
Tender Bonds: The Effect of Emotions and Parenting Styles on Rule-Violating Behaviors
Adviser: Ellen Cohn

Charli Kettyle
Psychology
Racial Attitude Effects on Jury Deliberation: Effects of Victim and Offender Race
Adviser: Ellen Cohn

Julia Priest
Psychology
Boredom over Time
Adviser: Caitlin Mills

Amir Robertson
Psychology, Women’s and Gender Studies
Creating a Gender Diverse Stimulus Set of Emotion Expressions
Advisers: April Bailey, Jolie Wormwood

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

Friday, April 26
1–4 p.m.
Pettee Hall, Room G10

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

Ande Allison
Sport Management and Leadership, Women’s and Gender Studies
Coaches’ Perceptions of Mental Health in Collegiate Athletics
Adviser: Karen Collins

Danielle Azevedo
Occupational Therapy
An Examination of the Experience of Participation in Inclusive Arts Education Programs
Adviser: Sarah Smith

Caroline Curry
Neuroscience and Behavior
Effect of an Acute Bout of Low-, Moderate-, and High-Intensity Aerobic Exercise on Immediate and Short-Term Cognitive Functioning
Advisers: Ronald Croce, Greg Spicer
Gabe Dennett  
Exercise Science  
A Developmental Model Studying Blood Glucose Variability When Active Young Adults Assume an Obesogenic Lifestyle  
Adviser: Michael Brian

Reilly Gray  
Communication Sciences and Disorders  
A Review of Executive Functioning and Social Communication Supports for Neurodiverse College Students  
Adviser: Kathryn Greenslade

Lauren Harrington  
Communication Sciences and Disorders  
Usage of Mental State Terms in Narratives Following Traumatic Brain Injury  
Adviser: Kathryn Greenslade

Anna Hewlett  
Exercise Science  
A Study Comparing Fatigue and Performance Measures in Female Collegiate Soccer Players with Global Positioning Systems and Perceived Stress  
Adviser: Michael Brian

Abaigeal Hughes  
Communication Sciences and Disorders  
The Use of Functional Near-Infrared Spectroscopy to Understand Brain Activity in Motor Learning in Augmentative and Alternative Communication Users  
Adviser: Kay Chen

Kelly Kaufmann  
Exercise Science  
Effects of Single-Leg Fatigue on Muscle Force Production and Vertical Jump in Female Volleyball and Basketball Players  
Adviser: Summer Cook

Hailey Keel  
English, Italian Studies  
Get Inked! How Tattoo Culture Has Been Changing in the 21st Century  
Adviser: Lisa Miller

Mia Rosa  
Health Sciences  
Effect of Sedentary and Obesogenic Lifestyles on Individuals’ Self-Perception of Health  
Adviser: Michael Brian

Naomi Schneider  
Nursing  
Genome-Wide Association Study: Evaluating Novel Genetic Factors Associated with Delirium Tremens Utilizing the All of Us Research Hub  
Adviser: Clarissa Michalak

Suchana Subedi  
English  
Bodily Autonomy and Aliens  
Adviser: Matthias Konzett

## Philosophy Department Undergraduate Research Conference

Friday, April 26  
4–7 p.m.  
Hamilton Smith Hall, Room 210

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

Travis Dean-Ploof  
Philosophy  
Exploring the Jurisprudential Implications of Antifascist Philosophy  
Adviser: Nicholas Smith

Zachary Dolfini  
Neuroscience and Behavior, Philosophy  
Animals and Ideology  
Adviser: Nicholas Smith

Kieran Newcomb  
Philosophy  
Why AI Is Likely to Replace Judges in our Criminal Justice System, and What We Should Do about It  
Adviser: Nicholas Smith

Kylee Rock  
Philosophy  
Does Hookup Culture Silence Women?  
Adviser: Laure Barillas

Paul Salek  
Justice Studies, Philosophy  
Wronged as a Knower: Epistemic Injustice and My Education  
Advisers: Subrena Smith, Nina Windgaetter
### Grand Challenge: Affordable and Clean Energy

**Team: Paul of Duty**  
Adviser: El McLaughlin  
Anthony Amaro  
Jackson Balcom  
Emma Biddle  
Tyler Davenport  
Annabelle DeLisle  
Cam Hayward  
Colin Koyutis  
Michaela Mazzei  
Tyler McCullough  
James McKinsey  
Finn Meehan  
Amy Powers  
Aidan Savage  
Sam York  
Undeclared

### Team: The Benchwarmers

Adviser: Joseph Skehan  
Joel Beard  
Martha Bellet  
Sam Bosch  
Grace Condrich  
Kevin d’Entremont  
Vincent Giroux  
Julia Kinsey  
Derek Lampey  
Jane Mettling  
Ellie Meyer  
Caroline Mollica  
Jackson Rich  
Drew Sanford  
Ava Webster  
David Wu  
Business Administration  
Serena Borges  
Tyler Bozek  
Robert Cooke  
Mason Simcox  
Undeclared  
Nick Mikhail  
Finance

### Team: Pauls

Adviser: Brayden LaDue  
Alex Antinoro  
Caroline Berube  
Katelyn Canavan  
Jasper Crane  
Polina Datsko  
Gavin Doyle  
Cole Dressler  
Chloe Faucher  
Ryan Giese  
TJ Johnson  
Luke Karr  
Keegan Knight  
Shannon McGrann  
Ella Pardy  
Alexa Rinehart  
Business Administration  
Wyatt Bell  
Jonathan Desrochers  
Abbey Fitzpatrick  
Ben Greenberg  
Jackson Maietta  
Donovan Reid  
Undeclared  
Robert Collier  
Business Administration, Sustainability

### Poster Presentations & Oral Presentations

**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.”

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**Peter T. Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC**

**Poster Presentations & Oral Presentations**

**Saturday, April 27**  
8 a.m.–3 p.m.  
Paul College

FIRE is an integrated, team-based, and game-like experience for first-year Paul College students. Through a series of challenges, students develop business plans that are presented at this year-end finale, which features poster and oral presentations on students’ business plans and concludes with a “Grand Challenge Round.”
Team: Live Three or Die
Adviser: Maeghan McGraw
Devon Buscema
Joey Czekanski
Marcy Kociubes
Tess Mantegari
Aidan McGinley
Angelina Meyer
Lauren Montville
Nate Mugford
Finn Osterberg
Isabel Preston
Chloe Stevens
James Sylvester
Mason Tatarian
Reanna Tremblay
Business Administration
Owen Delano
Jonathan DiTomaso
Isabella McCarthy
Jason Pino
Bradley Richards
Undeclared

Team: 21 Jump Street
Adviser: Carlie Simpkiss
Jack Comiskey
Natalie Conrad
Vanessa Demakis
Jett Doherty
Denzell Gibson
Makayla Keys
Aiden Recesso
Kyle Sheehan
Addie Smith
Owen Souza
Ava Telehala
Business Administration
Autumn Domingo
Sydney Leonard
Henry Richards
Julian Rime
Nick Ring
Evan Schmidt
Undeclared

Team: Paul Patrol
Adviser: Erin Hurley
Christian Anderson
Marisa Coye
Marlie Fitzgerald
Brady Lalonde
John O’Leary
Undeclared
Amanda Belanger
Josef Daniels
Gianna DiLello
Emma Horwitz
Ryan Husson
Luke Joyce
Alex Lagonakis
Rose Layton
Bryce Miller
Sean Moriarty
Arthur Murphy
Holly Pasquantonio
Brooke Sauter
Tyler Soucy
Business Administration

Team: Shevboyardeez
Adviser: Shevis Hankins
Bobby Arnold
Hamish Brenner
Grace Cardin
Victoria Dalke
Austin Gagnon
Chase Hall
Sebastian Lamers
Analytical Economics
Brandon Brown
Shane Gleeson
Madison Krol
Colin Mallio
Joe McDaniel
Akira McDowell
James Rogers
Lucas Wu
Economics
Liam Jordan
Business Administration
Sean Karman
Undeclared

Team: 7
Adviser: Radames Gonzalez
Alyvia Ashe
Mallory Bucciaglia
Jake Cawthrone
Nathaniel Doherty
Gavin Hehir
Tyler Lafond
Camden Maione
Ben Merrill
Alexander Movsessian
Aaron O’Reilly-Spencer
Owen Simon
Shauna Sullivan
Abigail Whitney
Jordan Zebuh
Business Administration
Katie Gregor
Catie Kirk
Maddy Montejo
Matthew Powers
Connor Zavory
Undeclared

Team: The 1926 Pelkinators
Adviser: Michael Pelkey
Brandon Bograd
Zealand Broadley
Andrew Burke
Ryan Caldon
Zehra Catalbas
Jamie Constantino
Daniel Dussault
Joe Eaton
Meghan Fleming
Madison Gallant
Emily Kears
Derin Kugo
Jack Lobdell
Mark MacMillan
Keryn McElroy
Kenna Olsen
Rebecca Rainey
Olivia Ventura
Ty Washam
Business Administration
AJ Hawkes
Flynn Martin
Undeclared
### Team: 9ers
Adviser: Hayley Oliver

<table>
<thead>
<tr>
<th>Team: 6 Figures</th>
<th>Grand Challenge: Gender Equality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adviser: Tiffany Marrotte</td>
<td>Adviser: Charlotte Selmer</td>
</tr>
<tr>
<td>Chris Byrne</td>
<td>Austin Abbott</td>
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<tr>
<td>Cameron Callahan</td>
<td>Olivia Arnold</td>
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<tr>
<td>Keira Lewandowski</td>
<td>Adrian Degnan</td>
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<tr>
<td>Andrew McGoldrick</td>
<td>Undeclared</td>
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<tr>
<td>Jake Mooney</td>
<td>Molly Clickman</td>
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<td>Reese Perry</td>
<td>Julia Drake</td>
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<td>Joseph Rush</td>
<td>Tyler Egan</td>
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<td>Steven Elezi</td>
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<td>Hayden Keating</td>
<td>Caleb Gazaway</td>
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<td>Sam Raymond</td>
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<td>Anna Souza</td>
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<td>Lilly Simpson-Neely</td>
<td>Mason Talbott</td>
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<td>Patrick Wachsmuth</td>
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<td>Olivia Talley</td>
<td>Business Administration</td>
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<tr>
<td>Cory Wodja</td>
<td>Delaney O’Brien</td>
</tr>
<tr>
<td>Business Administration</td>
<td>Finance</td>
</tr>
</tbody>
</table>

### Team: The Wolves of Wall Street
Adviser: Charlotte Selmer

<table>
<thead>
<tr>
<th>Team: 7--11</th>
<th>Team: FIRE Cheetahs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adviser: Sheila El-Azem</td>
<td>Adviser: Sadie Dyer</td>
</tr>
<tr>
<td>Ryan Alves</td>
<td>Kevin Colleran</td>
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<tr>
<td>Connor Bergeron</td>
<td>Chris Corbett</td>
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<td>Zach Bistany</td>
<td>Aidan Doyon</td>
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<td>Mason Brisard</td>
<td>Christopher Flint</td>
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<td>Joe Cocozella</td>
<td>Eli Gadbois</td>
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<td>Emma Drake</td>
<td>Tyler Ingham</td>
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<td>Andrew Johnson</td>
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<td>George Kalampalikis</td>
<td>Adrienne Kennedy</td>
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<td>Kevin Marinilli</td>
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<td>Caitlyn Monahan</td>
<td>Gus Matson</td>
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<td>Jack Nelson</td>
<td>Vatsa Patel</td>
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<tr>
<td>Ethan Santoro</td>
<td>Olivia Patenaude</td>
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<tr>
<td>Ava Tavares</td>
<td>Caleb Pendleton</td>
</tr>
<tr>
<td>Becca Jurgelsonis</td>
<td>Jack Tully</td>
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<tr>
<td>Bailee Zimmerman</td>
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</table>

Business Administration

### Team: Business Bros
Adviser: Mairead Hussey

<table>
<thead>
<tr>
<th>Team: FIRE Cheetahs</th>
<th>Team: Business Bros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin Colleran</td>
<td>Steph Braga</td>
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<tr>
<td>Chris Corbett</td>
<td>Kylie Gates</td>
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<td>Aidan Doyon</td>
<td>Emily Gillis</td>
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<td>Christopher Flint</td>
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<td>Eli Gadbois</td>
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<td>Adrienne Kennedy</td>
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<td>Hotel and Hospitality Management</td>
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<td>Olivia Patenaude</td>
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<td>Madalena Jerejian</td>
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<tr>
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<td>Jordyn Walker</td>
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</table>

Business Administration
Grand Challenge: Good Health and Wellbeing

Team: PAC12
Adviser: Olivia DeMatos
Alicia Agresti
Aaron Bistany
Kim Chea
Sophia Cheng
Arsion Daja
Travis Edmonds
Sean Kelliher
Ryan LeBrun
Dylan Losier
Lauren McCullough
John Paolucci
Evan Ralph
Adaline Sumner
Sarah Zebuhr
Business Administration
Mackenzie Bernhardt
Jack Hansen
Undeclared

Team: 24 We Want More
Adviser: Ella Dudley
Gianna Aiello
Trey Baker
Ryan Blagg
Vinny Borelli
Owen Cacciatore
Shea Garland
Michael Gouvin
Andrew Hunt
Noah Lambert
Nick Lazzaro
Lucie Legro
McCall McMullen
Benjamin Niezrecki
Harrison Scheel
Kelly Williams
Business Administration
Natalia Dandrea
Courtney Gerety
Dale Meskill
Wyatt Racine
John Turner
Undeclared

Team: Quince Rascals
Adviser: Mia Castellano
Monique Baril
Ryan Bushnell
Rocco Carrieri
Marley Cedrone
Emerson Clark
Alex Johnson
Gavin Knudsen
Sally McCoy
Nathan McKenney
Zachary Morin
Ella Nadeau
Mattie Peters
Quinton Pincoske
Caleb Plourde
Hannah Stewart
Elizabeth Walent
Business Administration
Sam Bischoff
Hailey Griffin
Cady Hatch
Undeclared

Team: Dirty 30
Adviser: Brandon Antinori
Liam Barry
Tess Beckman
Colleen Buckley
Camden Burgess
Marcus Cancilla
Cam Chicko
Alexa Colon
Aden Cremonini
Alyssa Crotty
Thomas Egan
Jane Faulk
William Horsager
Sal Muto
Savannah Searfoss
Ava Vaccari
Zachary Vincent
Business Administration
Nathaniel McEvoy
Chris Niziolok
Undeclared

Team: The Wall Street Wizards
Adviser: Audrey Powers
Kylie Bergman
Blake Dery
Andrew Madden
Undeclared
Bella Bielicki
Annika Borgman
Colin Buckley
Matthew Clifford
Keigen Delisle
Kyra Dumas
Ryan Fox
Aabhusan Gurung
Xavier Hitzrot
Jake Manning
Vincent O’Hara
Mia Pittore
Julian Roach
Bryana Sanuth
Trevor Woodworth
Business Administration

Team: Apaullo 28
Adviser: Ella Kolber
Kylie Boyle
Tommy Chen
Ryan Conmy
Braden Coyne
Elena Goud
Alexandria Grappone
Chloe Lahme
Nathan MacAulay
Lauren MacPhee
Katie Murray
Devon Page
Dylan Paynotta
Jessica Shattles
Sean Toscano
Hannah Welton
Business Administration
Jack Cotter
Sam Frost
Jacob Giorlando
Matt Guidebeck
Brea Hutcheon
William Robinson
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<td>Adviser: Brian Stanzione</td>
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<td>Carter Richardson</td>
<td>Analytical Economics</td>
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<tr>
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<td>Megan Clarke</td>
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<td>Ryan Jones</td>
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<td>Matthew Festa</td>
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<td>Analytical Economics</td>
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The VEXU Robotics competition is a way to foster our students’ interest and involvement in science, technology, engineering, and mathematics (STEM) by engaging them in hands-on, affordable, and sustainable robotics engineering programs. Through remote and in-person activities, students increase their innovative thinking, problem-solving, and communication skills, enhancing their academic journey to build a talented workforce in various STEM-related professions.
<table>
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<tr>
<th>Name</th>
<th>Major</th>
<th>Title</th>
<th>Adviser</th>
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<tr>
<td>Allison Auclair</td>
<td>Environmental Conservation and Sustainability</td>
<td>Stomatal Trait Analysis of Dominant Plant Species after Rainfall Exclusion in an Alpine Páramo and Tropical Rainforest</td>
<td>Heidi Asbjornsen, Matthew Vadeboncoeur</td>
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<td>Gretchen Bahmueller</td>
<td>Sustainable Agriculture and Food Systems Assessment of Open Top Chambers to Simulate Effects of Climate Change on Soil Temperature and Moisture in Agricultural Systems</td>
<td>Natalie Lounsberry, Richard Smith</td>
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<td>Robin Batchelor</td>
<td>Biomedical Science</td>
<td>Bacterial Contamination at Lamprey River Watershed Recreational Sites</td>
<td>Stephen Jones</td>
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<td>Casey Baumann</td>
<td>Genetics</td>
<td>Investigating Roles of Protein Phosphatase Subunits in the Root Response to Salt Stress</td>
<td>Estelle Hrabak</td>
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<tr>
<td>Margaret Bellemore</td>
<td>Sustainable Agriculture and Food Systems Beneath the Leaves: Uncovering the Presence of an Unreported Pest in New Hampshire Blueberry and Its Connection to Established Populations</td>
<td>Istvan Miko</td>
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<td>Nicole Benjamin</td>
<td>Genetics</td>
<td>Phenotyping CRISPR-Induced Protein S-acyltransferase Mutants in Arabidopsis thaliana</td>
<td>Estelle Hrabak</td>
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<td>Joseph Bodenrader</td>
<td>Biomedical Science</td>
<td>Exploring the Evolutionary Dynamics of the p53 Gene in Ecdysozoans: Implications for Cancer Biology and Genetic Regulation</td>
<td>David Plachetzki</td>
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<td>Mason Bois</td>
<td>Neuroscience and Behavior</td>
<td>5-6-7-Ring Organic Semiconductor Synthesis</td>
<td>Glen Miller</td>
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<td>William Brandenbourg</td>
<td>Wildlife and Conservation Biology</td>
<td>Effects of Timber Harvesting Techniques of Amphibian Populations</td>
<td>Rebecca Rowe</td>
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<td>Sarah Brautigam</td>
<td>Biomedical Science</td>
<td>Striped and White Bass Hybridization</td>
<td>Sherine Elsawa</td>
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<td>Jocelyn Brierey</td>
<td>Zoology</td>
<td>Exploring the Plasticity of Parasitic Dinoflagellates</td>
<td>Easton White</td>
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<td>Leandra Bryant</td>
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<td>Investigating Roles of Protein Phosphatase Subunits in the Root Response to Salt Stress</td>
<td>Elizabeth Harvey</td>
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<td>Heidi Bucking</td>
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<td>Exploring the Evolutionary Dynamics of the p53 Gene in Ecdysozoans: Implications for Cancer Biology and Genetic Regulation</td>
<td>David Plachetzki</td>
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<td>Nicholas Caporale</td>
<td>Marine, Estuarine and Freshwater Biology</td>
<td>Investigating the Efficacy of Fluorometers to Predict Cyanotoxins from New Hampshire Blooms</td>
<td>Amanda McQuaid</td>
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<td>Lauren Thibeault</td>
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<td>Assessing the Effects of Environmental Enrichment on Slow Growing Broiler Poultry</td>
<td>Vanessa Grunkemeyer</td>
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<td>Melanie Burley</td>
<td>Marine, Estuarine and Freshwater Biology</td>
<td>The Physiological Responses of the Invasive Tunicate Species, Botrylloides violaceus, to Water Temperature</td>
<td>Jennifer Dijkstra</td>
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<td>Allison Carl</td>
<td>Biochemistry, Molecular and Cellular Biology</td>
<td>Phenotyping of T-Cells in H-Gli2-/- Mice</td>
<td>Sherine Elsawa</td>
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<td>Carly Cave</td>
<td>Equine Studies</td>
<td>Equine Rescue Success in the United States: A Statistical Analysis</td>
<td>Sarah Rigg</td>
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<td>Trevor Chapman</td>
<td>Biochemistry, Molecular and Cellular Biology</td>
<td>Investigating the Effect of Gli2 on IgM in Waldenstrom’s Macroglobulinemia</td>
<td>Sherine Elsawa</td>
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<td>Christopher Chase</td>
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<td>Jacob English</td>
<td>Environmental Conservation and Sustainability</td>
<td>The Nutritional Value of Stream Macroinvertebrates to Brook Trout in a Small New Hampshire Stream</td>
<td>Nathan Furey</td>
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<td>Piper Cobak</td>
<td>Environmental Sciences</td>
<td>The Dam Dilemma: Evaluating Floodplain Plant Succession Post-Dam Removal</td>
<td>Wilfred Wollheim</td>
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<tr>
<td>Graham Collinsworth</td>
<td>Genetics</td>
<td>Investigating Phenotypes of Pollen Expressed Palmitoyl Transferase Mutants in Arabidopsis</td>
<td>Estelle Hrabak</td>
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<tr>
<td>Kyara Crespo Gutierrez</td>
<td>French, Genetics</td>
<td>Determining the Effects of Acetylation and Deacetylation of H3K56 on Embryonic Stem Cell Stemness</td>
<td>Feixia Chu</td>
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<tr>
<td>Caroline Curry</td>
<td>Neuroscience and Behavior</td>
<td>Effect of an Acute Bout of Low-, Moderate-, and High-Intensity Aerobic Exercise on Immediate and Short-Term Cognitive Functioning</td>
<td>Ronald Croce, Greg Spicer</td>
</tr>
</tbody>
</table>
Ava Dallas  
Biomedical Science  
*Climate Change Influences on Pathogenic Vibrio Species Populations in New Hampshire Oysters*  
Advisers: Stephen Jones, Easton White

Ashley Deshaies  
Animal Science  
*Determining Plasma Methionine Concentrations for Lactating Holsteins Supplemented with RP-Met Supplements Using the in Vivo Plasma Dose-Response Method*  
Adviser: Nancy Whitehouse

John Dionis  
Environmental Sciences  
*Can Leaf-Level Spectral Indices Detect Sapling Water Stress in a Greenhouse Droughting Experiment?*  
Advisers: Jack Hastings, Scott Ollinger, Samuel Zuckerman

Aubrianna Dobkins  
Biochemistry, Molecular and Cellular Biology  
*Developing a ATRP Grafting from Approach for pDNA*  
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Heather Doyon  
Animal Science  
*Public Perceptions of Zoos in the United States*  
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Kyla Drum  
Environmental Sciences  
*Lateral Carbon Transport across a Permafrost Thaw Gradient*  
Advisers: Lyreshka Castro, Maria Florencia Fahnestock, Cheristy Jones, McKenzie Kuhn, Ruth Varner

Tinotenda Duche  
Biochemistry, Molecular and Cellular Biology  
*Utilizing Plasmid DNA Hydrogels for Cell-Free Protein Production*  
Adviser: Nate Oldenhuis

Ashley Dyer  
Animal Science  
*Determining Amount of Lysine Lost in Rumen Protected Lysine Products Exposed to Total Mixed Ration*  
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Ana Ekstrom  
Kelly Gebhardt  
Biology  
*Sustainability Knowledge and Practices at UNH*  
Adviser: Patricia Jarema

Kaylee Finch  
Wildlife and Conservation Biology

Morgan Lane  
Zoology  
*Bird-Window Collision Hotspots on University of New Hampshire Campus*  
Adviser: Janet Anderson

Georgianna Fischer  
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*Predictors of Summer Chloride Exposure in Urban Aquatic Ecosystems*  
Adviser: Wilfred Wollheim

Gabriel Fitzgerald  
Biochemistry, Molecular and Cellular Biology  
*Optimization of Native PAGE and Blue Native PAGE for High Resolution Separation of Protein Complexes in Mouse Embryonic Stem Cells*  
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Sara Forcina  
Biochemistry, Molecular and Cellular Biology  
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Equine Studies  
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Ava Gaudette  
Nutrition  
*Comparing Calcium, Vitamin D, and Calorie Intakes in UNH Army ROTC Cadets with Low and Normal Bone Density*  
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Georgia Gempler  
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Neuroscience and Behavior  
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Karisa Graham  
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Adviser: Jingwei Cheng

Madison Henry
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Aaron Hoag
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Victoria Hodosi
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Allison Holdsworth
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Kayleigh Hummel
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Emma Iovene
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Alisa Ivantsova
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Gabrielle Jarrett
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Madigan Jennison
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Sam Jupin
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Ahilya Sudarshan Kadba
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Adviser: Sherine Elsawa

Margo Kamis
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John Kelleher
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Jo Koroma
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Arielle Kotulak
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Maggie Krein
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Hayden Lawton
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Nia Lessard
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Nicole Marcotte
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Soren Maret
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Olivia Martin
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Reese Yeatman  
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Adviser: Istvan Miko

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

**Championship Round**

*Wednesday, May 8  
1–5 p.m.  
Paul College*

This competition takes students out of the classroom and into the real world. Students are required to research and prepare strategies for commercializing new products and services, which they present to a panel of industry judges. Prizes are awarded for the most feasible and fundable approaches for starting, acquiring, or expanding a business venture.
Acknowledgments

The UNH Undergraduate Research Conference has grown to become a signature event at the University and one of the largest and most diverse conferences of its kind. Bringing the URC to fruition each year is the result of a collaborative network of many community members across campus. Here, we acknowledge these individuals and campus units and thank them for helping to make the 2024 URC happen.

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Tom Alsip, Co-Chair, Naked Arts; Assistant Professor, Theatre and Dance
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Elizabeth Cross, Senior Administrative Assistant, CEPS Dean’s Office
Leslie Curren, Co-Chair, COLSA URC; Senior Lecturer, Biological Sciences
Molly Doyle, Co-Chair, All Colleges Undergraduate Research Symposium; Administrative Director, Hamel Center for Undergraduate Research
Andrew Earle, Chair, PAUL Holloway Competition; Associate Professor, Strategic Management and Entrepreneurship
Derek Edry, Integrated Marketing Director, Student Life, Marketing
Elisabeth Farrell, Chair, University-Wide Undergraduate Sustainability Research Symposium; Project Manager, Sustainability Institute
Per Fjelstad, Lecturer, Communication
Liz Fowler, User Engagement and Student Success Librarian, Dimond Library
Matthew Gustavsen, Co-Chair, Graduate Research Conference (GRC); Graduate Assistant, UNH Graduate School
Stacey Hughes, Co-Chair, ISE Symposium; Lecturer, Chemistry
Sue Humphrey, Co-Chair, ISE Symposium; Administrative Services Specialist, CEPS Dean’s Office
Emily Kyriazi, Assistant Director of Student Engagement, Alumni Relations
Amanda Leger, Co-Chair, All Colleges Undergraduate Research Symposium; URC Coordinator, Hamel Center for Undergraduate Research
Rachel Nott, Co-Chair, All Colleges Undergraduate Research Symposium; Administrative Coordinator, Hamel Center for Undergraduate Research
Tom Payne, Co-Chair, Naked Arts; Associate Professor, English
Dana Pierce, Co-Chair, UNHM URC; Manager of Events

Chris Reardon, Professor, Political Science
Saege Robinson, Chair, Paul College FIRE URC; Educational Program Coordinator, Paul College
Cyndi Roll, Associate Director, Connors Writing Center
Shayna Sylvia, Co-Chair, Paul College URC; Marketing Events Specialist, Paul College
Paul Tsang, Faculty Director, Hamel Center for Undergraduate Research; Professor, Molecular, Cellular and Biomedical Sciences
Pam Wildes, Co-Chair, COLSA URC; Administrative Assistant II, Biological Sciences, COLSA
Dan Winans, Co-Chair, Paul College URC; Senior Lecturer, Hospitality Management
Mary Young, Chair, UNHM URC; Project Manager, Services Enhancement Initiatives, Dean’s Office, UNHM

2024 URC Event Chairs/Co-Chairs:
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Saege Robinson, Paul College FIRE URC
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Contributors:
Graphic Design: Christine Hodgson
Photography: Jeremy Gasowski
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