

Undergraduate Research Conference



CELEBRATING 25 YEARS

Welcome to the UNH Undergraduate Research Conference



JAMES W. DEAN JR.



WAYNE JONES

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,

A handwritten signature in cursive script, appearing to read "James W. Dean Jr."

JAMES W. DEAN JR.

PRESIDENT

A handwritten signature in cursive script, appearing to read "Wayne Jones"

WAYNE JONES

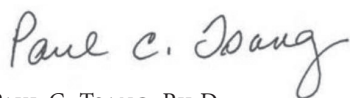
PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS

A Welcome from the Hamel Center for Undergraduate Research

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](#).

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URC 2024 Calendar

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

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)

9 a.m.–4:30 p.m.

**University-Wide Undergraduate
Sustainability Research Symposium**

*Memorial Union Building, Rooms 330,
332, 334, 336, and 338 (3)*

12–2 p.m.

**The Naked Arts – Creativity
Exposed! (Act I)**

Paul Creative Arts Center, Museum of Art (5)

4–6 p.m.

**UNH Manchester URC,
Poster Presentations**

*88 Commercial Street, MPR Room 201
and Student Commons, Manchester*

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)

1–4 p.m.

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

Pettee Hall, Room G10 (6)

2–3:30 p.m.

Honors English URC

Hamilton Smith Hall, Room 205 (1)

4–7 p.m.

Philosophy Department URC

Hamilton Smith Hall, Room 210 (1)

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

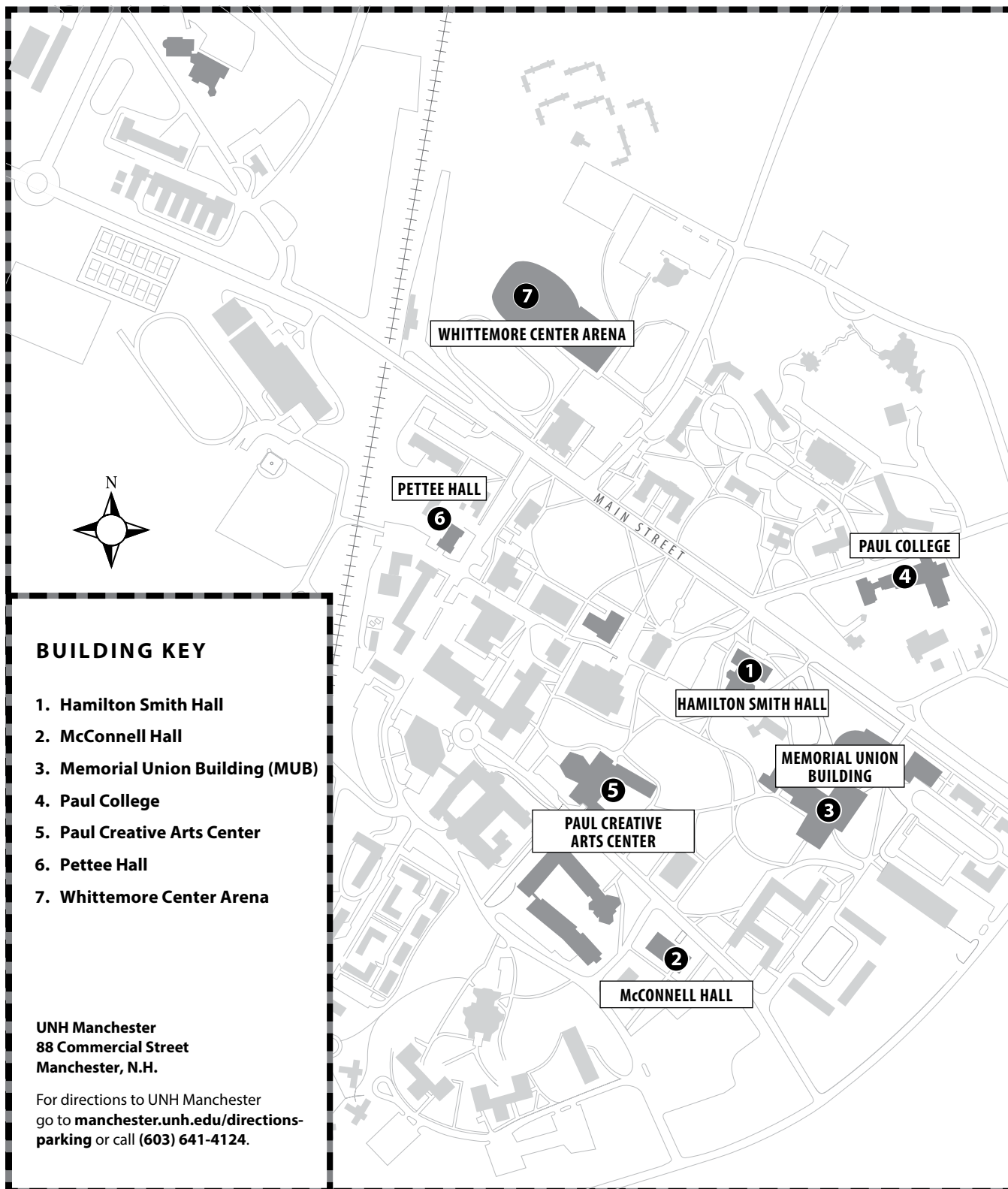
1–5 p.m.

**Paul College of Business and Economics
Paul J. Holloway Prize Innovation**

**to Market Competition,
Championship Round**

Paul College (4)

URC 2024 Campus Map



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

Colleen Williams
Educational Studies, Fine Arts
Moon on Fire

Seth Wyatt
Art: Studio Art
Observation Deck

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

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: Kyung Jae Jeong

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

Charlotte Thomas

Bioengineering

Molecular Simulation Studies of Protein Interactions Involved in Aging: Investigating the Recruitment Mechanism of PRC2 and DNMT3A

Adviser: Harish Vashisth

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

Exogenous Clickable 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

Civil and Environmental Engineering — Analysis

Group Leaders: Philippe Kalmogo, Anthony Puntin

Collin Allison

Alex Michaud

Kelsey Page

Civil Engineering

Julia Bowman

Environmental Engineering

Peabody Bikeway

Adviser: Anthony Puntin

Sara Berg

Cameron Bourque

Environmental Engineering

Hugh Hubbard

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 Eftekhari 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

Civil Engineering

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

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

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

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 Alsaad
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

Annika 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, Qiaoan 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 of a Low-Cost and Autonomous Ground Magnetometer Station

Adviser: Wayne Smith

Noah Gove

Electrical Engineering

On-Site PFAS Detection Using Spectrometry and a Machine Learning Approach

Adviser: 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

Innovation Scholars

Group Leader: Shawna Hollen

Matthias Allen

Jack Conrad
Aidan Hau
 Mechanical Engineering
Race Mower
 Adviser: Benjamin Mitchell

James Ares

Tucker Hadwen
 Environmental Engineering

Delaney Flynn

Computer Science
Runa Kersten-Guiler
 Chemical Engineering
Beach Profile Mapping from Unmanned Aerial Vehicle Imagery
 Advisers: Matthew Florence, Diane Foster

Fritzgerald Aristor

Electrical Engineering

Dylan Bradsher-Behra

Statistics

Elbert Tulung

Computer Science
Boosting Student Economy Using Web Based Application
 Advisers: Kyle Ouellette, Dean Sullivan

Iris Baird

Kyle Stewart
 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 McKerley****Nicholas Niedzielski**

Mechanical Engineering

Trent LaRose

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 Blenkhorn

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 Bubl, 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: Linqing Li, Jaxson Libby

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 Hibscheiler

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

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

Mekan Annayew

Henry Gorhan

Nathaniel Huckins

Aidan Palermo

Justin Paul

Robert Putnam

Jonathan Sawyer

Geoff Smith

Mechanical Engineering
UNH Baja Racing
 Adviser: Ivaylo 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

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

Mechanical Engineering — Faculty Sponsored Projects

**Group Leaders: Juan Bautista,
Anthony Puntin**

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

Shahrukh Khan
Alexander Shirley
Mitch Umehara
 Mechanical Engineering
Project Pedicab
 Adviser: Juan Carlos Cuevas Bautista

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

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

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 Shellito

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 Shanholtzer

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 Rzhantov, 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 Satiesteban****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 Kislak

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 Kislak

Devanee Guruge

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 Satiesteban

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?

Advisers: Jennifer Andrews, Jade Chalkley

Sofia Balan

Finance, Sustainability

Ryan Ensminger

Ryan Gray

Environmental Sciences, Sustainability
Sustainability CSV Initiative: Biodiversity
 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

Advisers: 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**Anakin Paige**

Marketing, Sustainability

Eric Ierardi

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 Feasibility 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

Tim Sicard

Finance, Information Systems and
Business Analytics, Sustainability

Logan Whittaker

Psychology, Sustainability

Morgan Williams

Environmental and Resource
Economics, Sustainability

Natalie Young

Equine Studies, Sustainability
*Planning for Power: Electrifying
UNH's Campus*

Adviser: John Aber

Kailei Wedge

Environmental Conservation and
Sustainability

*Drop the Disposables: A Journey Towards
Expanding Reusable To-Go Ware at UNH*

Advisers: Jennifer Andrews, Alex Fried

Victoria Whitcomb

Sustainability, Wildlife and
Conservation Biology

Cat Trax Bike Share Program

Adviser: Jennifer Andrews

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 Hatafsky

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

Jocelyn Therrien

Biotechnology

The Inhibitory Effects of Caffeine on Beta-

Galactosidase Production and Activity

Adviser: Kristen Johnson

Layne Cilley

Kenneth Paquette

Biotechnology

Does Temperature Affect the Beta-

Galactosidase Activity in a Culture of E. coli?

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

Uyen Ly

Jocelyn Therrien

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

Grant Mangan

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
Artificial Intelligence in Media Production
Adviser: Michael Soha

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

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

Tyler Montgomery
Communication
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

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 McMahan

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 Face of the Republic: A Comparison of the Vestal Virgins and Marianne
Adviser: Michael Leese

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

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

Mikayla Tilden
History
Visions of Progress in World's Fairs: 1933, 1939, 1962
Adviser: Kurk Dorsey

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

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

Ayman Naanai
Joseph Wangu
 Mechanical Engineering

Jacob Bolduc
Colby Roberts
 Electrical Engineering
UNHM VEX U Robotics Competition Team UNHM#4

Advisers: Robert Arredondo,
 Donald Marcotte

Caio Campos

Electrical Engineering

Ian Finken

Electrical Engineering Technology

Daniel Lougee

Mechanical Engineering Technology

Keegan Unzen

Mechanical Engineering
UNHM 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
UNHM 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
UNHM VEX U Robotics Competition Team UNHM#6

Adviser: Robert Arredondo

Walter Chacon**Connor Dodge**

Electrical Engineering Technology

Daniel Stough**Timothy Woodward**

Mechanical Engineering Technology
UNHM 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
UNHM 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: Raeleene 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

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

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

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 Penguin (*Pygoscelis adeliae*) Chicks from West Antarctica*
 Adviser: Laura Kloemper

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 Robertston

Joy Woolley

Classics
Lost in Translation: Examining the Characterization of Briseis in Homer's Iliad and Contemporary Retellings
 Adviser: Paul Robertston

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 Collinworth

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 Petrucci

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 Stable 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

Ecogastronomy, Nutrition
Relationship between Eating Habits during Emotional Distress and Health Outcomes among College Sophomores
 Adviser: Jesse Stable 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: Alynna 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

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 Chianese

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 Senior

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**Charlie Perry**

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 Hibscheweiler

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 Elswa

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: Alynna 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 Laarman

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 Opper

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: Alynna 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 Widdekink

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

All Colleges Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 26

12:15–1:25 p.m.

Memorial Union Building

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

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

Evie Wiechert

Communication

Understanding Gender in Social Institutions: Public Bathrooms as a Symbol of the Gender Binary

Adviser: Jennifer Borda

**Memorial Union Building,
Room 336**
Multidisciplinary Session VII

Moderator: Daphne Chevalier

Bernadette Farmer

Economics, Spanish

The Economic Impacts of Digital Nomads in Medellín, Colombia

Adviser: Reagan Baughman

Karter Hanley

Classics

A Commentary on Roman Ethnography of the Far East and Roman Social Identity: Ammianus Marcellinus' Res Gestae 23.6.67-68

Adviser: Tejas Aralere

Kyle Nord

Anthropology, Classics

Rebuilding the Romans: Using 3D Modeling to Reconstruct the Library of Celsus

Adviser: Ivo Van der Graaff

Jillienne Robinson-Warren

Classics

Roman Women on the Move: A Latin Textbook

Adviser: R. Scott Smith

Ginger Schoff

Political Science

Perceptions of Crime and State Legitimacy in Rural Brazil

Adviser: Mary Fran Malone

**Memorial Union Building,
Room 338**
Multidisciplinary Session VIII

Moderator: Kathyryne Brewer

Sadie Chaffin

Justice Studies, Psychology

Unveiling Potential Gender Differences in Prosocial Versus Antisocial Rule-Violating Behavior

Adviser: Ellen Cohn

Caitlyn Colavita

Homeland Security, Justice Studies

Threat Group Intelligence Capabilities

Adviser: Andrew Macpherson

Mary Condon

Analytical Economics

Investigating Skilled Nursing Facility Ownership's Relationship to Quality of Care in the State of New Hampshire

Adviser: Esmaeil Bahalkeh

Sydney Seaver

Linguistics

L2 Learners' Perception of Mandarin Affricates and Fricatives

Adviser: Sean Madigan

Zoe Werth

Biomedical Science, German

Understanding East Germany's Development of Operative Psychology through the Lens of Gedenkstätte Berlin-Hohenschönhausen

Adviser: Charles Vannette

**Memorial Union Building,
Room 340**
Multidisciplinary Session IX

Moderator: Emily Pratt

Kyara Crespo Gutierrez

French, Genetics

Determining the Effects of Acetylation and Deacetylation of H3K56 on Embryonic Stem Cell Stemness

Adviser: Feixia Chu

Georgia Gempler**Emily Komerska**

Neuroscience and Behavior

The Effects of Contrast on Motion Induced Blindness and Perceptual Filling-In

Adviser: William Stine

Caleb Marrero

Health Sciences

Epidemiology of Concussions among Collision Sport Status in Middle School Athletes

Adviser: Trish Kelshaw

Siobhain Murphy

Anthropology

The Effects of Occupational Markers on Age Estimation in Working Class Decedents

Adviser: Samantha McCrane

Jodi Stetser

Genetics

Exploring Variation in the Inclusion Efforts of UNH-4U Student Support Peer Staff on the UNH Campus

Adviser: Ariel Schwartz

**Memorial Union Building,
Room 330**
Security at Home and Abroad

Moderator: Corilie Green

Samuel Byrom

International Affairs, Political Science

Japanese Plutonium Reserves: Nuclear Fuel or WMDs

Adviser: Lawrence C. Reardon

Amoni Dorrington

Homeland Security, International Affairs

The Umbrella: A Humble Shield against Authority

Adviser: Lawrence C. Reardon

Isabel Dreher

English/Journalism, Political Science

International Weapons Monitoring: Tracking the Flow of Arms in Ukraine and Central America

Adviser: Jen Spindel

Sullivan Kimball

Political Science

Unrest in China's Rural and Periphery Areas

Adviser: Lawrence C. Reardon

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 Befford

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

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

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

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

Sean Lynch

Finance

Artificial Intelligence in Stock Analysis and Portfolio Building

Adviser: Jonathan Nash

Lilie Murray

Accounting, Finance

Understanding Large Accounting Firm Perceptions on the Decline of Accounting Graduates and Implications of Supply Shortages

Adviser: Linda Ragland

Jackson O'Connell

Business Administration, Finance

Analysis of the 60/40 Portfolio Allocation Diversification Deficit

Adviser: Richard Kilbride

Anthony Sanville

Finance

Residential Real Estate: The Affordability Crisis

Adviser: Richard Kilbride

Brian Weston

Finance

Comparative Analysis of Latvia and Montenegro with Regards to EU Status

Adviser: Stephen Ciccone

Multidisciplinary/Honors**Track II: Other****Stav Alkalay**

Economics

Beyond Automation: A Comprehensive Analysis of Artificial Intelligence's Influence on Employment, Income, and Policy

Adviser: Marco Vincenzi

Jocelyne Bisson

Marketing, Political Science

Consumer Preference and Politics: Polarization in the U.S. Two-Party System

Adviser: Bruce Pfeiffer

Jillian Cookinham

Economics

Long Term Standard of Living in the United States

Adviser: Aziz Saglam

Carley Dahlstrom

Business Administration

Understanding Neurodiversity and Executive Dysfunction to Discover More Effective Accommodations and Create a More Inclusive Workforce for Neurodivergent Individuals

Adviser: Kimberly France

Joseph Driscoll

Marketing

Looking for the Answer: Exploring the Choice Between AI and Search Engines

Adviser: Thomas Gruen

Emma Farnham

Finance, Information Systems and Business Analytics

Between the Lines and Reports: Bridging Literary AI Insights with Corporate Perspectives

Adviser: Jing Wang

Linda Freeman

Finance, International Business and Economics

Implementation of the Dutch Biking System in the United States — Subject: Portsmouth, NH

Adviser: Noele Lee

Nicholas Fuller

Analytical Economics, Educational Studies

Green Jobs in New England

Adviser: Robert Mohr

Olivia Graves-Witherell

Analytical Economics

The Effects of Temperature on National Park Visitation Rates

Adviser: Stephanie Brockmann

Aidan Hughes**Nolan Otto**

Information Systems and Business Analytics

Caitlin Mathieu

Accounting, Information Systems and Business Analytics

An Analytical MLB Realignment Proposal

Adviser: Peter Zaimes

Jake MacInnis

Information Systems and Business

Analytics

College Sports as a Business: How Name, Image, and Likeness Deals Have Altered the Way Colleges Operate

Adviser: Peter Zaimes

Caroline McCarthy

Marketing

AI Synthetic Voice and Celebrity Images

Adviser: Diane Devine

Alyssa Morrison

Information Systems and Business

Analytics, Sustainability

The Future of Building: How 3D Printing Will Impact the Construction Industry

Adviser: Russell Miles

Olivia O'Connor

Marketing

Same, Same, but Different: Can Cosmetic 'Dupes' Equate to the Real Thing with the Rise of Social Media Marketing?

Adviser: Peter Masucci

Courtney Vincent

Information Systems and Business

Analytics, Marketing

Chatbots: How the Top Brands Utilize Them

Adviser: Moein Khanlari

Lea Wenaas

Business Administration

Navigating Turbulence: Analyzing the Immediate Aftermath of Disruption

Adviser: Andrew Earle

Ayrika West

Marketing

The Critical Role of Authenticity in Influencer Marketing: Navigating Tensions between Consumers and Businesses

Adviser: Alex LaBrecque

Jamison White

Economics

The Impacts of NIL Agreements on Student-Athlete Mental Health and Team Perception

Adviser: Scott Lemos

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

Oral Session I

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

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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 Jensen

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

Marc Laferriere

Communication

Brady Mountain

Psychology

Michael Ziv

Information Systems and Business

Analytics, Management

*DEI Dynamics: Examining Enrollment Patterns at UNH***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 Tingos

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

Brianna Meyer

Nursing

Student Perspectives on the Mental Health Curriculum within the College of Health and Human Services at UNH

Adviser: Alyssa O'Brien

Olivia Pride

Communication Sciences and Disorders

Exploring Lexical Stress Perception: An Investigation across Varied Listener Experience with Prosody

Adviser: Jill Thorson

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

Honors English Undergraduate Research Conference

Friday, April 26**2–3:30 p.m.****Hamilton Smith Hall, Room 205**

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

Hailey Keel

English, Italian Studies

Get Inked! How Tattoo Culture Has Been Changing in the 21st Century

Adviser: Lisa Miller

Molly Kent

English, Women's and Gender Studies

"I'm Kind of a Big Deal in This Industry": How Killing Eve's Villanelle Subverts the Femme Fatale Archetype

Adviser: Robin Hackett

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

Madison Sarsfield
 Philosophy
Powerlessness of Grief
 Adviser: Laure Barillas

Sienna Shanellaris
 Philosophy
The Essence of the Absolute
 Adviser: Matthew Dowd

Abigail Towers
 History, Philosophy
*Disunified Oomph: A Case for a Disunified
 View of Social Role Normativity*
 Adviser: Charlotte Witt

Esther White
 Philosophy
*Gendered Space and the Punitive
 Rendering of Female Embodiment*
 Adviser: Laure Barillas

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."

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: 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

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 Mikhael
 Finance

Team: Taco Tuesday

Adviser: Carley Markward

Jack Beauregard
 Harrison Bloom
 Eric Cadreact
 Johnny Rand
 James Silva
 Madison Stiglets
 Undeclared
 Nick Freel
 Zach Frizzell
 Savannah Gallagher
 Hannah Gundel
 Abigail McDonald
 Ryan Pacileo
 Mia Scavitto
 Will Sullivan
 Talbot Talbot
 Peter Turner
 Gwendolyn Walier
 Jake Webber
 Business Administration

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 Simpkins

Jack Comiskey
 Natalee 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

Grand Challenge: Clean Water and Sanitation**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 Saulter
 Tyler Soucy
 Business Administration

Team: Shevboyardeez

Adviser: Shevis Hankins

Bobby Arnold
 Hamish Bremner
 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 Bucciaaglia
 Jake Cawthron
 Nathaniel Doherty
 Gavin Hehir
 Tyler Lafond
 Camden Maione
 Ben Merrill
 Alexander Movsessian
 Aaron O'Reilly-Spencer
 Owen Simon
 Shauna Sullivan
 Abigail Whitney
 Jordan Zebuhr
 Business Administration
 Katie Gregor
 Catie Kirk
 Maddy Montejo
 Matthew Powers
 Connor Zavery
 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 Kearns
 Derin Kugu
 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

Jacob Brisbin
 Eddie Brodney McDevitt
 Dominic Feeney
 Madison Gaughran
 Ryan Graney
 Lenna Hooper
 Brett Lucht
 Jack Lumpinski
 Aidan McGuigan
 Will Roncone
 Keiko Shafton
 Cam Sullivan
 Business Administration
 Chris Cotsifas
 Brooke Lyons
 Ella Puorro
 Zachary Schmolka
 Michael Wilkinson
 Undeclared

Team: 6 Figures

Adviser: Tiffany Marrotte

Chris Byrne
 Cameron Callahan
 Keira Lewandowski
 Andrew McGoldrick
 Jake Mooney
 Reese Perry
 Joseph Rush
 Undeclared
 Hayden Keating
 Meier Kuepper
 Kaylee Litcofsky
 Jack Looney
 Grace McGarry
 Paige Murphy
 Aidan Riley
 Logan Sfeir
 Lilly Simpson-Neely
 Owen Surette
 Olivia Talley
 Cory Wodja
 Business Administration

Grand Challenge: Gender Equality**Team: The Wolves of Wall Street**

Adviser: Charlotte Selmer

Austin Abbott
 Olivia Arnold
 Adrian Degnan
 Undeclared
 Molly Clickman
 Julia Drake
 Tyler Egan
 Steven Elezi
 Caleb Gazaway
 Ryan Jason
 Tyler Kochol
 Connor McGinley
 Liam O'Brien
 Sam Raymond
 Owen Sadowski
 Anna Souza
 Mason Talbott
 Patrick Wachsmuth
 Business Administration
 Delaney O'Brien
 Finance

Team: 7--11

Adviser: Sheila El-Azem

Ryan Alves
 Connor Bergeron
 Zach Bistany
 Mason Brisard
 Joe Cocozella
 Emma Drake
 Ella Fesko
 George Kalampalikis
 Chase LeMieux
 Lucienne Leonard
 Caitlyn Monahan
 Jack Nelson
 Ethan Santoro
 Ava Tavares
 Becca Yurgelonis
 Bailee Zimmerman
 Business Administration
 Campbell Boynton
 Annie Connolly
 Lucy Jimenez
 Andrew Linnehan
 Jake Stromfors
 Undeclared

Team: Business Bros

Adviser: Mairead Hussey

Steph Braga
 Kylie Gates
 Emily Gillis
 Kelsey Landis
 Olivia LeBlanc
 Greta Neddenriep
 Mia Novais
 Sydney Olsen
 Samantha Parker
 Leah Sacramone
 Shayne Worob
 Hotel and Hospitality Management
 Sara Carey
 Ethan Gray
 Eimile Hurley
 Madalena Jerejian
 Jordyn Walker
 Undeclared

Team: FIRE Cheetahs

Adviser: Sadie Dyer

Kevin Colleran
 Chris Corbett
 Aidan Doyon
 Christopher Flint
 Eli Gadbois
 Tyler Ingham
 Andrew Johnson
 Adrienne Kennedy
 Pacey Labelle
 Kevin Marinilli
 Gus Matson
 Vatsa Patel
 Olivia Patenaude
 Caleb Pendleton
 Jack Tully
 Undeclared

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
 Ethan Petrone
 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 Niziolek
 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
 Undeclared

Grand Challenge: Life on Land**Team: 14ers**

Adviser: Brian Stanzione

Camryn Anderson
 Benjamin Hebert
 Patrick Restuccia
 Thomas Ring
 Max Rosenberg
 Devin Sawyer
 Shay Sullivan
 Undeclared
 Caden Babcock
 Hailey Botelho
 Ethan Christerson
 John Doyle
 Nour Elhawawi
 Brianna Greene
 Jacob Ingraham
 Kyle Jodoin
 Nick Lucich
 Brooke Navarro
 Anna Putney
 Joshua Salzman
 Indiana Troupe
 Emma Wolfe
 Business Administration

Team: The Great One-Eight

Adviser: Nicolas Daly

Carter Aubrey
 Carlie Dufoe
 Sam Foulds
 Sally Koscho
 Undeclared
 Tyler Bisbee
 Jameson Colby
 Luke Ewan
 Olivia Gauthier
 Jared Glogower
 Ryan Jones
 Rozana Keo
 Kaitlyn Lalli
 Devin Lencki
 Katherine Nolan
 Anna Pauer
 David Ruge
 AJ St. Gelais
 Lyla Tulloch-Hernandez
 Business Administration

Team: Firefighters

Adviser: Robbie Barrieau

Julia Bahnuk
 Brooke Needham
 Avery Rosamilia
 Sophia Zigelbaum
 Undeclared
 Adam Bell
 Alex Carroll
 Henry Hartford
 Brady Heyman
 Meghan Johnson
 Matt Krasnecki
 Maryellen LaCroix
 Nolan Maiani
 Kevin Murphy
 Molly Perkins
 Carter Richardson
 Mason Roach
 Business Administration

Team: Engine 2

Adviser: Taylor McDonough

Olivia Baker
 Emma Berardi
 Jonathan Childs
 Ayden Deeb
 Trent Jackson
 Eva Morrissey
 Kaylie Nunez
 Khushi D. Patel
 Sydney Peskovitz
 Cole Shechtman
 Emmet Teahan
 Riley Walls
 Jack Walsh
 Andrew Wolfe
 Donciel Yemo
 Business Administration
 Ryan Pieroni
 Joshua Sweeney
 Matthew Valluzzi
 Undeclared

Team: Team 10

Adviser: Mary Condon

Noah Bastis
 Brayden Casey
 Elias Grabowski
 Matthew Guiney
 Madelyne Hancock
 Austin Kaminaris
 Flora Litvinova
 Colin McGinness
 Bradyn Shaw
 Johannes Shull
 Economics
 Drew Believeau
 Morgan Melo
 James Reda
 Dylan Wood
 Analytical Economics
 Jialin Chen
 Sean Finnegan
 Jonathan Hossack
 Jacob Micciche
 Andrew Moon
 Ben Soucy
 Undeclared

Team: Wendy's 4 for 4

Adviser: Alexa Gillett

Evelyn Brenton
 Drew Buckley
 Isabella Campion
 Nina Cesario
 Megan Clarke
 Kaden Dumas
 Erin Fagan
 Carlee Graham
 Aidan Johnston
 Elvis Lawton
 Javin Manfield
 Madison Moreau
 Ryan Reynolds
 Donovan Somma
 Brady Spitzer
 Paytie Woods
 Business Administration
 William Erickson
 Ana Hazen
 Sean Mansfield
 Undeclared
 Matthew Festa
 Analytical Economics

UNH Manchester URC Engineering Technology Robotics Competition

Saturday, April 27
8 a.m.–3 p.m.
88 Commercial St.,
MPR Room 201, Manchester

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.

COLSA Undergraduate Research Conference

Oral Presentations

Saturday, April 27
8:15–10 a.m.
Memorial Union Building,
Theatre II

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

Aileen Auclair
Environmental Conservation and Sustainability
Stomatal Trait Analysis of Dominant Plant Species after Rainfall Exclusion in an Alpine Páramo and Tropical Rainforest
Advisers: Heidi Asbjornsen, Matthew Vadeboncoeur

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

Gabrielle Jarrett
Marine, Estuarine and Freshwater Biology
Spatial Variation in Microplastic Deposition in Salt Marshes of the Hampton-Seabrook Estuary
Adviser: Gregg Moore

Frank Shinost
Wildlife and Conservation Biology
Insights from the Lens: Comparing Habitat Associations of Bobcats and Fisher with Camera Traps in New Hampshire
Adviser: Rem Moll

COLSA Undergraduate Research Conference

Poster Presentations

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

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

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

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

Sara Amovic
Neuroscience and Behavior

MeiLing Maddox
Zoology
Analysis of Biology Students' Cognitive Challenges When Learning Statistics in Course Based Undergraduate Experiences
Adviser: Melissa Aikens

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

Aileen Auclair

Environmental Conservation and Sustainability
Stomatal Trait Analysis of Dominant Plant Species after Rainfall Exclusion in an Alpine Páramo and Tropical Rainforest
 Advisers: Heidi Asbjornsen, Matthew Vadeboncoeur

Gretchen Bahmueller

Sustainable Agriculture and Food Systems
Assessment of Open Top Chambers to Simulate Effects of Climate Change on Soil Temperature and Moisture in Agricutlural Systems
 Advisers: Natalie Lounsbury, Richard Smith

Robin Batchelor

Biomedical Science
Bacterial Contamination at Lamprey River Watershed Recreational Sites
 Adviser: Stephen Jones

Casey Baumann

Genetics
Investigating Roles of Protein Phosphatase Subunits in the Root Response to Salt Stress
 Adviser: Estelle Hrabak

Margaret Bellemore

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
 Adviser: Istvan Miko

Nicole Benjamin

Genetics
Phenotyping CRISPR-Induced Protein S-acyltransferase Mutants in Arabidopsis thaliana
 Adviser: Estelle Hrabak

Joseph Bodenrader

Biomedical Science
Exploring the Evolutionary Dynamics of the p53 Gene in Ecdysozoans: Implications for Cancer Biology and Genetic Regulation
 Adviser: David Plachetzki

Mason Bois

Neuroscience and Behavior
5-6-7-Ring Organic Semiconductor Synthesis
 Adviser: Glen Miller

William Brandenburg

Wildlife and Conservation Biology
Effects of Timber Harvesting Techniques of Amphibian Populations
 Adviser: Rebecca Rowe

Sarah Brautigam

Biomedical Science
Striped and White Bass Hybridization Effect on Reproductive Success and Off-Spring Market Weight
 Advisers: Adrienne Kovach, Kris Wojtusik

Jocelyn Brierley

Zoology
Emma O'Brien
 Marine, Estuarine and Freshwater Biology
A Meta-Trophic Network of Reef Fish in Californian Kelp Forests: Trophic Diversity and Redundancy
 Adviser: Easton White

Leandra Bryant

Biomedical Science, French
Exploring the Plasticity of Parasitic Dinoflagellates
 Adviser: Elizabeth Harvey

Heidi Bucking

Nicholas Caporale
 Marine, Estuarine and Freshwater Biology
Lauren Thibeault
 Environmental Conservation and Sustainability
Investigating the Efficacy of Fluorometers to Predict Cyanotoxins from New Hampshire Blooms
 Adviser: Amanda McQuaid

Alexa Bukoski

Animal Science
Assessing the Effects of Environmental Enrichment on Slow Growing Broiler Poultry
 Adviser: Vanessa Grunkemeyer

Melanie Burley

Marine, Estuarine and Freshwater Biology
The Physiological Responses of the Invasive Tunicate Species, Botrylloides violaceus, to Water Temperature
 Adviser: Jennifer Dijkstra

Allison Carl

Biochemistry, Molecular and Cellular Biology
Phenotyping of T-Cells in H-Gli2-/- Mice
 Adviser: Sherine Elsawa

Carly Cave

Equine Studies
Equine Rescue Success in the United States: A Statistical Analysis
 Adviser: Sarah Rigg

Trevor Chapman

Biochemistry, Molecular and Cellular Biology
Makram Elkhach
 Biomedical Science
Investigating the Effect of Gli2 on IgM in Waldenström's Macroglobulinemia
 Adviser: Sherine Elsawa

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

Piper Cobak

Environmental Sciences
The Dam Dilemma: Evaluating Floodplain Plant Succession Post-Dam Removal
 Adviser: Wilfred Wollheim

Graham Collinworth

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

Kyara Crespo Gutierrez

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

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

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 Dobbins

Biochemistry, Molecular and Cellular Biology

Developing a ATRP Grafting from Approach for pDNA

Adviser: Nate Oldenhuis

Heather Doyon

Animal Science

Public Perceptions of Zoos in the United States

Adviser: Vanessa Grunkemeyer

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

Adviser: Nancy Whitehouse

Ana Ekstrom

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

Environmental Sciences

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

Adviser: Feixia Chu

Sara Forcina

Biochemistry, Molecular and Cellular Biology

Illuminating the Binding Site: Ligand-Induced Structural Changes in Human Cytosolic Proteins

Adviser: Sean Edington

Carolyn Frank

Equine Studies

Comparison and Contrast of Financial Considerations for Adoption-Based and Sanctuary-Based Equine Rescues

Adviser: Sarah Rigg

Kaylee Galvin

Zoology

Elizabeth Kupferberg

Marine, Estuarine and Freshwater Biology

*Tag, You're It: Investigating Impacts of GPS Tagging on Common Terns (*Sterna hirundo*)*

Advisers: Aliya Caldwell, Elizabeth Craig

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

Georgia Gempler**Emily Komerska**

Neuroscience and Behavior

The Effects of Contrast on Motion Induced Blindness and Perceptual Filling-In

Adviser: William Stine

Karisa Graham

Biomedical Science

Distribution of Tick Species on Free-Ranging Ungulates in Northern New England

Adviser: David Needle

Chloe Gross

Environmental Conservation and Sustainability

Land Analysis of a 30-Acre Parcel in Deerfield, NH

Adviser: Michael Simmons

Caylin Grove

Genetics

*Examination of *Haplosporidium nelsoni* and *Perkinsus marinus* Interactions with Eastern Oysters, *Crassostrea virginica*, in the Great Bay Estuary Waters during Early Larval Stages*

Adviser: Bonnie Brown

Becaye Gueye

Genetics, Sustainable Agriculture and Food Systems

*Developing Genetic Markers for the Bush Trait in *Cucurbita pepo**

Adviser: Chris Hernandez

Bryce Hannon

Chemistry

Modification of the YTHDC1 Coding Sequence Using Polymerase Chain Reaction for Transduction into Merkel Cell Carcinoma Cell Lines

Adviser: Jingwei Cheng

Madison Henry

Biochemistry, Molecular and Cellular Biology

Effects of Drug Resistance in Triple Negative Breast Cancer

Adviser: Sarah Walker

Aaron Hoag

Sustainable Agriculture and Food Systems
Visualizing the Head Musculature of the Mymaromatidae

Adviser: Istvan Miko

Victoria Hodosi

Biomedical Science

Comparing Pathogen Distribution in Milk Cultures: A Comparative Analysis between Organic and Conventional Farms in New York, Vermont, and Maine

Adviser: David Needle

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Animal Science

Canine Hemangiosarcomas: Exploring Trends in Case Submissions to the New Hampshire Veterinary Diagnostic Laboratory (2021-2024)

Adviser: Colleen Monahan

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Environmental Sciences

Changes in Upland, Riparian, and Streambed Sediment C:N and Associated Water Quality in Response to Agricultural Activity

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Emma Iovene

Marine, Estuarine and Freshwater Biology
Bioacoustics Affected by Anthropogenic Impacts

Advisers: Michelle Fournet, Melanie Smith

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Biomedical Science

Targeting Merkel Cell Carcinoma Using PRMT5i to Promote Intron Retention and R Loop Formation

Adviser: Jingwei Cheng

Gabrielle Jarrett

Marine, Estuarine and Freshwater Biology
Spatial Variation in Microplastic Deposition in Salt Marshes of the Hampton-Seabrook Estuary

Adviser: Gregg Moore

Madigan Jennison

Biomedical Science

RNase-Free Purification of pDNA Using Anion Exchange Chromatography

Adviser: Nate Oldenhuis

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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 Elswa

Margo Kamis

Ecogastronomy, Nutrition

Comparing Skin Carotenoid Measures among College Students Following Gluten-Free, Vegetarian, and Low-Carbohydrate Diets

Adviser: Jesse Stabile Morrell

John Kelleher

Genetics

Effect of Gli2 on Lymphocyte Production of Cell Surface Molecules

Adviser: Sherine Elswa

Jo Koroma

Neuroscience and Behavior

Associations of Fish Consumption with Neurocognition and Depressive Symptoms

Adviser: Sherman Bigornia

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Environmental Sciences

Seasonality of Leaf Trait Changes through a Canopy Height Gradient in New Hampshire Forests

Advisers: Jack Hastings, Scott Ollinger

Maggie Krein

Environmental Sciences

Influence of Microplastic Contamination on Soil Microbial Community Composition

Adviser: Jessica Ernakovich

Logan Lajoie

Animal Science

Dog Weight, Age, and Sex Relationship with Shelter Dog Length-of-Availability at Pope Memorial Humane Society

Adviser: Sarah Proctor

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Marine, Estuarine and Freshwater Biology
Site-Specific Variability in Abundance of Coral Reef Fishes within an Urban Florida Bay

Adviser: Nathan Furey

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Ecogastronomy, Nutrition

Relationship between Eating Habits during Emotional Distress and Health Outcomes among College Sophomores

Adviser: Jesse Stabile Morrell

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Marine, Estuarine and Freshwater Biology
The Effect of Weather Events on Passive Acoustic Detection of Salt Marsh Nekton in New England

Advisers: Michelle Fournet, Gregg Moore, Alexandria Sangermano

Alexa Lussier

Wildlife and Conservation Biology

Cayden Thomas**Madeleine Woodward**

Environmental Conservation and Sustainability

New Zealand Long-Tailed Bat Population Research

Adviser: Natasha Bansal

Liam MacNeil

Zoology

The Structural Base of Detecting Substrate Borne Signals in Pelecinus polyturator

Adviser: Istvan Miko

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Biomedical Science

Targeting BCL6 Transcription Factor in Ovarian Cancer

Adviser: Sarah Walker

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Animal Science

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Adviser: Jacqueline Marr

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Biomedical Science

Modeling OUD in Mice: Developing a Chronic Subcutaneous Morphine Paradigm to Examine Protection by the Gut Microbiome

Adviser: Cheryl Whistler

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Biomedical Science

Role of Dec1 in Ovarian Cancer

Adviser: Sarah Walker

Ashley Masse

Sustainable Agriculture and Food Systems

Alpaca Assisted Activities in New England: A Possible Solution to Improve Farm Income

Adviser: Andrew Conroy

Sae Matsumoto

Nutrition

The Use of a Multi-Method Diet Assessment Approach to Capture and Characterize Infant and Toddler Feeding Occasions

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MacNeill Matthews

Genetics

*Capabilities of the Bacteria *Marinobacter* and *Labrenzia* for Increasing Siderophore Production Due to Iron Stress Levels in Their Dinoflagellate Hosts*

Adviser: Elizabeth Harvey

Avery McClain

Environmental Sciences

Aquatic Plant Biomass in Relation to Nutrient Inputs at Mill Pond

Adviser: Wilfred Wollheim

Lauren McDowell

Marine, Estuarine and Freshwater

Biology, Sustainability

Factors Influencing Vessel Incidents with Killer Whale Ecotypes in the Salish Sea

Advisers: Melanie Smith, Easton White

Lynne McNamara

Environmental Sciences

Substrate Use by the Nocturnal Caribbean Reef Octopus by Light Color Used

Adviser: Wilfred Wollheim

Carmelina Minico

Biotechnology

Glutathione-Sensitive Nanocarrier Frameworks for the Synergistic Release of Chemotherapeutics

Adviser: Aylin Aykanat

Amanda Newport

Zoology

*New Host-Parasitoid Interaction:**Baesus (Hymenoptera: Scelionidae)**Parasitizing Ray Spider Eggs (Aranei:**Theridiosomatidae)*

Adviser: Istvan Miko

Sarah Nicholls

Biochemistry, Molecular and Cellular Biology

Using RNA Sequencing to Examine the Dehydration Response in the Hypothalamus and Pituitary Gland of a Desert-Adapted Mouse

Adviser: Matthew MacManes

Ryan Nickerson

Environmental and Resource Economics

Australian Mitigation and Adaptation Measures in Response to Long-Term Socioeconomic and Environmental Impacts of Climate Change

Adviser: Kelly Giraud

Joe Novotny

Biology

*New Species of the *Aphanogmus fumipennis* Group from New Hampshire (Hymenoptera: Ceraphronoidea)*

Adviser: Istvan Miko

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Forest Technology

A Foundational Species at the Brink: Assessing the Efficacy of Silvicultural and Chemical Treatments in Combating Hemlock Woolly Adelgid Infestations

Adviser: Michael Simmons

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Biochemistry, Molecular and Cellular Biology, Justice Studies

Land Cover Mapping in the NH Coastal Watershed

Adviser: Russell Congalton

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Neuroscience and Behavior

The Effect of Violating Expectations on Memory Performance

Adviser: Omer Daglar Tanrikulu

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Marine, Estuarine and Freshwater Biology

Analyzing Acoustic Detection from Marine Mammals in Southeast Alaska

Advisers: Michelle Fournet,

Melanie Smith

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 Edgington

Alex Rakowski

Biology

The Effects of Biofouling on Oyster Activity

Adviser: Brittany Jellison

Tim Ralich

Genetics

*Epithelial-to-Mesenchymal Transition**Plays a Key Role in Newt Lens Regeneration*

Adviser: Konstantinos Sousounis

Andrew Ricketts

Genetics, Sustainability

*The Genetics of Female Flowering Time in *Cucurbita pepo**

Adviser: Chris Hernandez

Riley Rocha

Biology

How Low Can You Go: Investigating Valve Gaping Behavior of Bivalves over Winter in New England

Adviser: Easton White

Ava Rose

Genetics

Do Duckweeds Adapt to Local Water and Microbes?

Adviser: Anna O'Brien

Matthew Rozinski

Environmental Sciences

Quantifying Enzymatic Activity of Rhizosphere Porewater for Tundra Plants Growing in Permafrost

Adviser: Jessica Ernakovich

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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

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Biochemistry, Molecular and Cellular Biology

Impact of HDAC Inhibitors on Cardiomyocyte Differentiation

Adviser: Feixia Chu

Shaylee Sarmiento

Zoology

Unsung Heroes in Conservation: Evaluating the Limitations Faced by Wildlife Rehabilitation Centers in New England and Proposing Solutions for Their Support and Recognition

Adviser: Janet Anderson

Caroline Savage

Wildlife and Conservation Biology

Good Neighbors: Competing Wildlife Species Share a Den Site in an Urban Park System

Adviser: Rem Moll

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Biochemistry, Molecular and Cellular Biology

Investigating the Lyoprotective Properties of a Plant Antifreeze Protein

Adviser: Krisztina Varga

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Biomedical Science

*Distribution of Heavy Metals in the Environment in New Hampshire and the Potential Impact on Fishers (*Pekania pennanti*)*

Advisers: Colleen Monahan, David Needle

Olivia Smith

Biology

Modeling the Population Dynamics of a Human Mars Colony in the Event of Catastrophe

Adviser: Easton White

V Souza

Neuropsychology

Blake Tower

Neuroscience and Behavior

Advancing Surgical Precision and Ethical Research Methods by Integrating 3D-Printed Models, and Unraveling Nicotine-Related Associative Learning through the Exploration of PFC-dmCPu Connection Using Chemogenetic Approaches

Adviser: Sergios Charntikov

Diana Stover

Animal Science

*Distribution of Diagnoses of *Listeria monocytogenes* in New England from 2017-2023*

Adviser: David Needle

Katherine Veronneau*Investigation of Potential STAT3 Inhibitors in Triple Negative Breast Cancer*

Adviser: Sarah Walker

Amanda White

Marine, Estuarine and Freshwater Biology

*A Proposed Mathematical Model for Assessing Population Structure of Gulf of Maine Winter Flounder (*Pseudopleuronectes americanus*)*

Advisers: Ana Silverio, Easton White

Bella Williams

Equine Studies

Thoroughbred Racehorses: Injuries, Misconceptions, and the Future of the Industry

Adviser: Sarah Rigg

Reese Yeatman

Biomedical Science

*Interspecific Variation of Mushroom Body Volume in Four *Nasonia* Wasp Species (*Hymenoptera: Chalcidoidea*)*

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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Chandra Carson, Executive Director, Content Marketing, Marketing

Daphne Chevalier, Advisor, National Fellowships and Hamel Scholars Program, University Honors Program

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Tom Alsip and **Tom Payne**, The Naked Arts—Creativity Exposed!

Ben Cariens, Senior B.A. & B.F.A. Exhibition

Pablo Chavajay, Psychology Department
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Monica Chiu and **Delia Konzett**, Honors English URC

Leslie Curren and **Pam Wildes**, COLSA URC

Kurk Dorsey and **Jenna Scholefield**, History Department URC

Matthew Dowd and **Timm Triplett**, Philosophy Department URC

Molly Doyle, **Amanda Leger**, and **Rachel Nott**, All Colleges Undergraduate Research Symposium

Andrew Earle, Paul College Holloway Prize Competition

Elisabeth Farrell, University-Wide Undergraduate Sustainability Research Symposium

Stacey Hughes and **Sue Humphrey**, Interdisciplinary Science & Engineering (ISE) Symposium

Dain LaRoche and **Erin Sharp**, CHHS Grimes Award Competition

Dana Pierce and **Mary Young**, UNH Manchester URC

Saegge Robinson, Paul College FIRE URC

Shayna Sylvia and **Dan Winans**, Paul College URC

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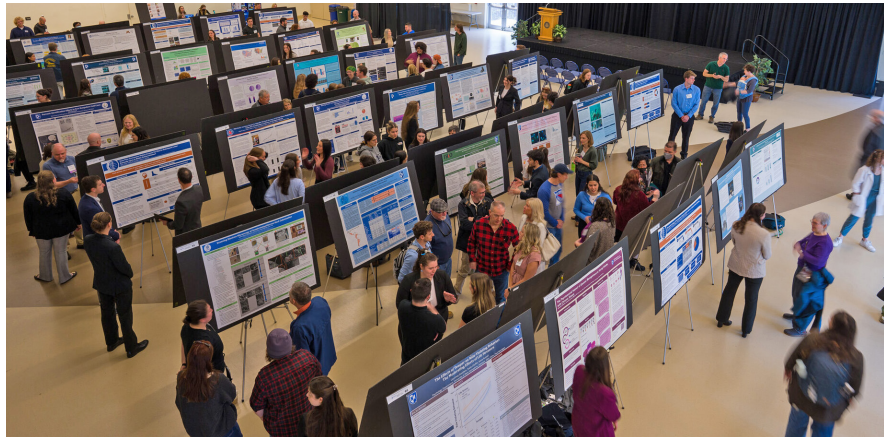
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