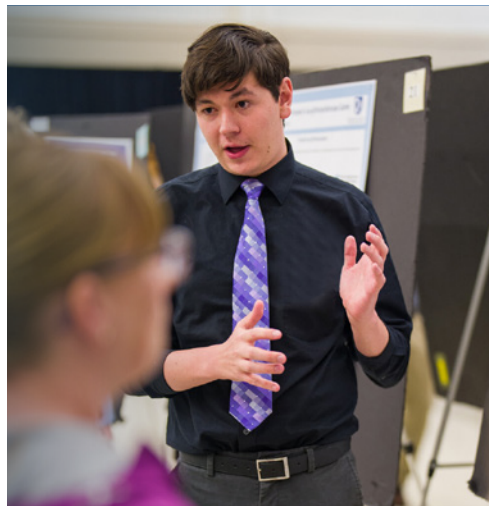


Undergraduate Research Conference

2025



Welcome to the UNH Undergraduate Research Conference



ELIZABETH S. CHILTON



CYNDEE GRUDEN

WELCOME TO THE 26TH ANNUAL UNDERGRADUATE RESEARCH CONFERENCE (URC), one of UNH's most exciting traditions and an impressive showcase of our students' creativity, hard work, and accomplishments.

Launched as a university-wide effort in the spring of 2000, this conference has grown steadily to become one of the largest and most diverse gatherings of undergraduate researchers in the nation. This year, more than 1,700 students will present their research, scholarship, and creative works across our Durham and Manchester campuses, representing academic achievements in every college at UNH.

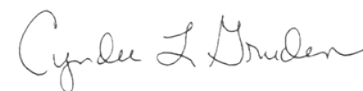
In addition to highlighting our students' academic excellence, the URC reflects the dedication and support of hundreds of faculty mentors whose research and teaching expertise are the hallmarks of a great UNH education. As students work with faculty to develop projects – supported by staff, alumni, and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

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 ingenuity. Thank you for supporting our students and New Hampshire's flagship public research university.

Best regards,



ELIZABETH S. CHILTON
PRESIDENT



CYNDEE GRUDEN
INTERIM PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS

A Welcome from the Hamel Center for Undergraduate Research

WELCOME TO THE 26TH 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 1,700 students – mentored by over 300 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 ROBERTSON, PH.D.
Director, Hamel Center for Undergraduate Research
Senior Lecturer, Classics, Humanities, and Italian Studies



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 biannually by the Hamel Center for Undergraduate Research, and celebrating its 21st 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 2025 Calendar

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

THURSDAY, APRIL 10

8–9:30 p.m.

Student Composers' Concert

Paul Creative Arts Center,
Bratton Recital Hall (5)

FRIDAY, APRIL 11

12–4 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 18

6–8 p.m.

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

The exhibition will remain open until May 18.

Paul Creative Arts Center, Gallery of Art (5)

MONDAY, APRIL 21

12–3 p.m.

History Department URC

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

TUESDAY, APRIL 22

9 a.m.–12 p.m.

UNH Manchester URC, Oral Presentations

88 Commercial Street,
Screening Room 456, Manchester

WEDNESDAY, APRIL 23

8 a.m.–5:30 p.m.

Interdisciplinary Science and Engineering (ISE) Symposium

Whittemore Center Arena (7)

9 a.m.–5 p.m.

University-Wide Undergraduate Sustainability Research Symposium

Memorial Union Building,
Rooms 330, 332, 334, 336, 338, and 340 (3)

12–2 p.m.

The Naked Arts – Creativity Exposed! (Act I)

Paul Creative Arts Center, Gallery of Art (5)

4–6 p.m.

UNH Manchester URC, Poster Presentations

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

THURSDAY, APRIL 24

10 a.m.–12 p.m.

UNH Manchester URC, Cinema Arts Day

88 Commercial Street, Screening Room 456,
Manchester

12:40–2 p.m.

The Naked Arts – Creativity Exposed! (Act II)

Paul Creative Arts Center, Gallery of Art (5)

FRIDAY, APRIL 25

8 a.m.–4 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.–1:45 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)

3–6 p.m.

Philosophy Department URC

Hamilton Smith Hall, Room 210 (1)

SATURDAY, APRIL 26

8 a.m.–5 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)

9 a.m.–4 p.m.

Paul College First-Year Innovation and Research Experience (FIRE) URC

Paul College (4)

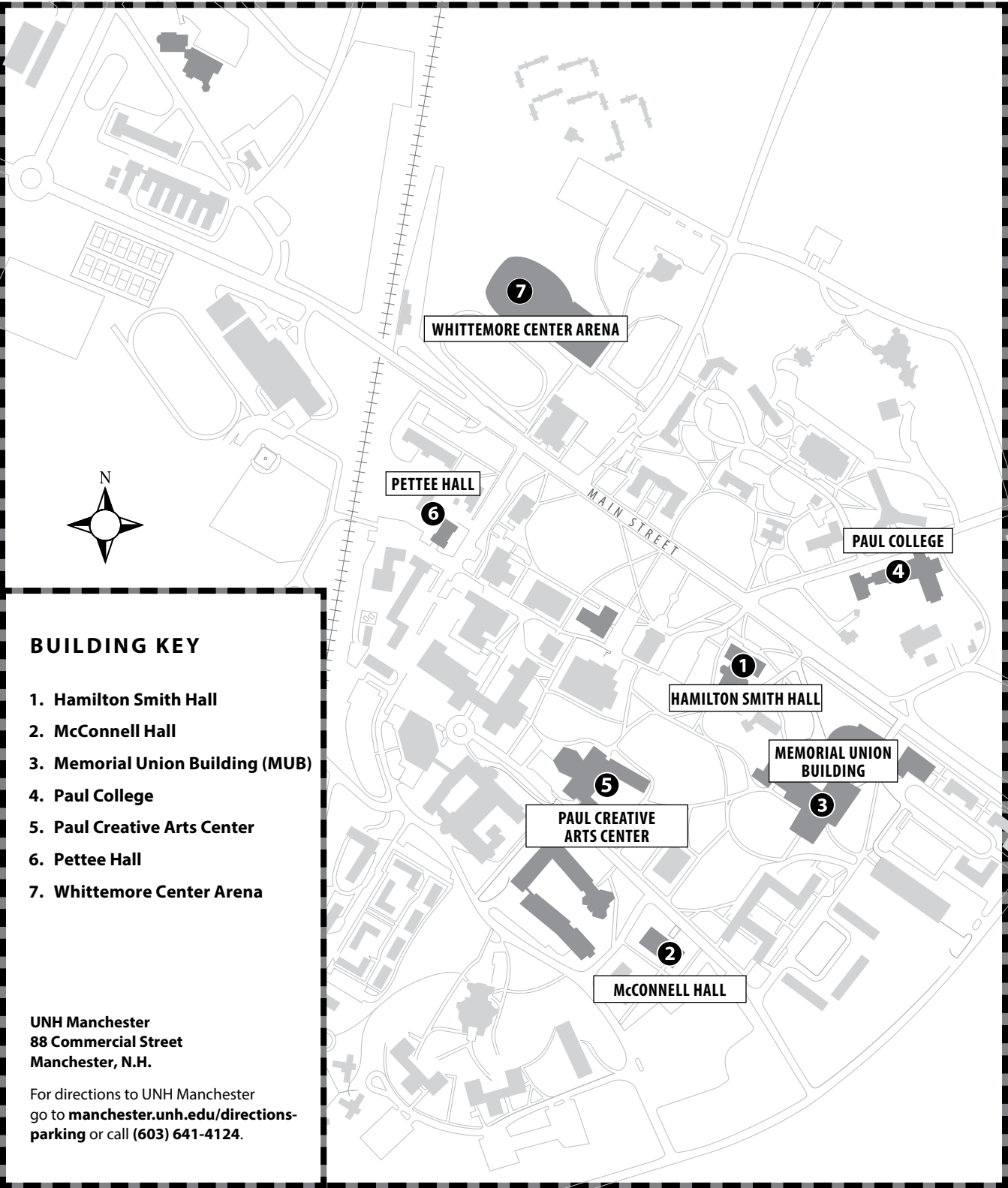
TUESDAY, MAY 6

12–6 p.m.

Paul College of Business and Economics Paul J. Holloway Prize Innovation to Market Competition, Championship Round

Paul College (4)

URC 2025 Campus Map



Student Composers' Concert

Thursday, April 10
8–9:30 p.m.
Paul Creative Arts Center,
Bratton Recital Hall

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

Adviser: Michael Shun

Caroline Butler
Brenden Norwood

Music Education

Gabby Costello

Ryan Moore

Music

Georgia Power

Chemistry

Catch-22: Clarinet Quartet with Marimba

Jacob Copp

Computer Science

Derek Dong

Computer Science, Music

Ethan Keller

Economics

String Trio in C Major, Movement 2

Derek Dong

Computer Science, Music

Eden Harriman

Alison Henderson

Chloe Jaarsma

Ryan Moore

Music

Quintet for Clarinet and Strings

Joseph Kayan

Music Education

"Reflections" Trio for Three Cellos

Josh Letendre

Music Education

Breath of the Machine

Wendy Parcel

Music

Duet for Piano Four-Hands

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

Bud Albin Challenge Round

Friday, April 11
12–4 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 18
6–8 p.m.
Paul Creative Arts Center,
Gallery of Art

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

Adviser: Benjamin Cariens

Amy Alterisio

Fine Arts

Growing Pains

Nolan Cloutier

Fine Arts

Radiance Amidst the Ripples

Garrett Cote

Business Administration, Fine Arts

Fashion: Silhouette and Character

Lily Dube

Fine Arts

Immortal Love

Shannon Gormley

Fine Arts

I Am Woman

Mitra Nutter

Studio Art

Into the Absurd

Jamie Senzapaura

Studio Art

Incomplete Thoughts

Cat St. Hilaire

Fine Arts

A Conversation about Ghosts

Daisy Tuttle

Fine Arts

Body's Rituals

History Department Undergraduate Research Conference

Monday, April 21

12–3 p.m.

**Memorial Union Building,
Rooms 332, 334, and 336**

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.

Freedom, Democracy, and Community

Moderator: Eliga Gould

Evan Christensen

Genetics

Crusading against Vice: The Legacy of American Anti-Profanity Leagues

Adviser: Kimberly Alexander

Tanner Faucher

History, Political Science

Not Nostrums, but Normalcy: The 1920 Presidential Election

Adviser: Nicoletta Gullace

Ethan Foss

History

The Enlightenment's Shadow: Freedom, Democracy, and Slavery in Jefferson's Declaration

Adviser: Eliga Gould

Meagan Gaffney

History

The Women's Suffrage Movement and the Declaration of Independence

Adviser: Eliga Gould

Quintin Hogan

History

The Effects of Quakerism on the Life of the Public Universal Friend

Adviser: Eliga Gould

Gender, Power, and Propaganda

Moderator: Elizabeth Mellyn

Diana Gibson

History, Theatre

Magic, Gender, and Power Dynamics in Ancient Rome

Adviser: Michael Leese

Claire Paley

History

The Female Patient and the Male Doctor: Gender, Power, and Psychiatry in 19th-Century America

Adviser: Elizabeth Mellyn

Lexi Pereira

History

The Role of Gender and Propaganda in the Boer War

Adviser: Funso Afolayan

Ryann Smith

History

Weeping Women: Dora Maar's Art and Legacy

Adviser: Nicoletta Gullace

War, Diplomacy, and Citizenship

Moderator: Lucy Salyer

Noell Bergeron

History

Immigration and Nationality Law in the Irish Free State: How Ireland Disentangled Its Concept of Citizenship from the British Commonwealth

Adviser: Lucy Salyer

Maximilian DiGiovanni

History, Political Science

Project TACKLE: 12 Years of CIA and Taiwanese Joint Reconnaissance Flights

Advisers: Kurk Dorsey, Lawrence C.

Reardon, Lillian Young

Ethan Foss

History

History of American-Chinese Relations during the Korean War

Adviser: Kurk Dorsey

William Marinaccio

History, Political Science

Blinded Ambition versus Sobering Reality:

The Battle of the Bulge

Adviser: Nicoletta Gullace

Spencer Peacock

History

The Conservation Sidestep

Adviser: Lucy Salyer

UNH Manchester Undergraduate Research Conference

Oral Presentations

Tuesday, April 22

9 a.m.–12 p.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.

Adviser: Jeffrey Klenotic

Daniel Enright

Communication Arts

The IMAX Experience: The Brand of Selling beyond the Contents of a Screen

Joseph Risteen

Communication Arts

More Than Just Likes: The Dynamics of Language Communication and Social Media

Interdisciplinary Science & Engineering (ISE) Symposium

Poster Presentations

Wednesday, April 23
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

Christopher Boujaoude

Biomedical Science

Emily Russell

Applied Mathematics

Computational Analysis of EEG

Waveforms of Mice in Ketamine-Induced Comas

Advisers: Xuanmao Chen, Mark Lyon

Trevor Chapman

Biochemistry, Molecular and Cellular Biology

The Role of Activation-Induced Cytidine Deaminase in Class Switching of

Waldenström's Macroglobulinemia

Adviser: Sherine Elsawa

Makram Elkhach

Biomedical Science

The Effect of GLI2 on AICDA Promoter Activity

Adviser: Sherine Elsawa

Madison Henry

Biochemistry, Molecular and Cellular Biology

Targeting STAT3 in Triple Negative Breast Cancer

Adviser: Sarah Walker

Alisa Ivantsova

Biomedical Science

Targeting Merkel Cell Carcinoma by Inhibiting PRMT5 to Promote R Loop Formation

Adviser: Jingwei Cheng

Kevin Jiang

Bioengineering

Investigating Impacts of Primary Cilia and Reelin on Postnatal Neuronal Placement and Cortical Lamination

Adviser: Xuanmao Chen

Ahilya Sudarshan Kadba

Biology

Investigating the Effect of Epigenetic Therapies on the Tumor Microenvironment

Adviser: Sherine Elsawa

John Kelleher

Genetics

Gli3 Effect on Cytokine Expression in Monocyte Cancer Cells

Adviser: Sherine Elsawa

Allison Mackey

Biomedical Science

Identifying BCL6 Inhibitors in Ovarian Cancer

Adviser: Sarah Walker

Dhiraj Naidu

Biochemistry, Molecular and Cellular Biology

Analysis of Microbial Communities Driving Greenhouse Gas Fluxes in Arctic Peatlands

Adviser: Jessica Ernakovich

Alicia Veronneau

Biology

Characterizing the Lipid and Protein Concentrations in Phytoplankton

Adviser: Elizabeth Harvey

Katherine Veronneau

Biochemistry, Molecular and Cellular Biology

Investigation of Potential STAT3 Inhibitors in Breast and Ovarian Cancer Metastasis

Adviser: Sarah Walker

Chemical Engineering

Group Leader: Young Jo Kim

Andrea Bartus

Chemical Engineering

Determining Suitable Leaf Species for Perfusion of Leaf-Derived Vascular Scaffolds

Adviser: George Pins

James Brackett

Biochemistry, Molecular and Cellular Biology

Regulating Ovarian Cancer Growth: Tuning 2D Hydrogel Mechanical and Biochemical Properties

Adviser: Linqing Li

Ryan Brown

Neuroscience and Behavior

Maximizing Mutual Information of Impedance Spectroscopy Data and Electrode Degradation

Adviser: Jeffrey Halpern

Hannah Cuvellier

Biochemistry, Molecular and Cellular Biology

Gelatin-Methacrylated Hyaluronic Acid Microgels for Neural Tissue Generation In Vitro

Adviser: Kyung Jae Jeong

Jayden Hartigan

Bioengineering

Heavy Metal Remediation and Recovery Using Proteins Displayed on Spore Surface

Adviser: Kang Wu

Brynna Hone

Bioengineering

Optimization of Bioreactor-Based Plasmid DNA Production in E.coli

Advisers: Linqing Li, Nate Oldenhuis

Kevin Jiang

Bioengineering

Role of Mitochondrial tRNA-Derived Fragments in Metastasis

Adviser: Danny Welch

Evan Kennedy

Bioengineering

Tuning the Mechanical Properties of Composite Dextran Hydrogels

Advisers: Aylin Aykanat, Linqing Li

Ethan Labbe

Engineering Physics

Calibration of Ionization Gauges for Improved Accuracy in Space Applications

Adviser: James Clemmons

Naya Leslie

Bioengineering

Engineering Phase Separation to Induce Microstructures in Biomaterials for Controlled Release of Cancer Drugs

Adviser: Linqing Li

Elise Provencher

Chemical Engineering

Synthesis and Characterization of Nickel-Titanium Layered Double Hydroxides

Adviser: Nan Yi

Will Steere

Chemical Engineering

Kinetics of the Anatase-Rutile Transition

Adviser: Nan Yi

Jack Sullivan

Chemical Engineering

Photocatalytic Methane Conversion over Heteropoly Acid Based Catalysts

Adviser: Nan Yi

Charlotte Thomas

Bioengineering

A Computational Model Predicting How DNMT3A Is Recruited by PRC2 to Catalyze Epigenetic Modifications Associated with the Progression of Aging

Adviser: Harish Vashisth

Chemistry — Senior Thesis**Group Leader: Stacey Hughes****Kylie Armor**

Chemistry

Synthesis and Photophysical Characterization of Imidazolidinone Macrocyclic Chromophores

Adviser: Brittany White-Mathieu

Connor Foley

Chemistry

Development and Characterization of Hydrogen Sulfide Releasing Frameworks

Adviser: Aylin Aykanat

Joshua Goonan

Chemistry

Synthesis of an N-Heterocyclic Phosphenium Cation Using 2,4,6-Trimethylaniline

Adviser: Christine Caputo

Forde Kates

Chemistry

An Exploration of the Removal of PFAS through Gamma Cyclodextrin Morphologies

Adviser: Aylin Aykanat

Ethan McFee

Chemistry

Synthesis of Highly Conjugated Molecules for Use as Organic Semiconductors

Adviser: Glen Miller

Tim Murphy

Chemistry

Surface Functionalization of Titanium Dioxide Nanoparticles for Enhanced Interaction with Guest-Functionalized Catalysts

Adviser: Christine Caputo

Chemistry — Undergraduate Research**Group Leader: Stacey Hughes****Lauren Barnes**

Biochemistry, Molecular and Cellular Biology

Purification of EcoRI-RTX through Calcium Precipitation

Adviser: Nate Oldenhuis

Tyler Brock

Chemistry

Design and Synthesis of a Tetrapeptide for Removal of Lead from Water

Adviser: Roy Planalp

Amy DiVito

Biochemistry, Molecular and Cellular Biology

Exploring the Effect of pH on DNA-Intercalating Supramolecular Hydrogels

Adviser: Nate Oldenhuis

Eddie Gaffny

Chemistry

Cyclodextrin Metal Organic Frameworks for Per/Polyfluorinated Alkyl Substances Absorption

Adviser: Aylin Aykanat

Shelly Heim

Chemistry

Qualitative and Quantitative Analysis of Mass Spectrometry Peaks of Glycans

Adviser: Anyin Li

Laura Hills

Biochemistry, Molecular and Cellular Biology

Temperature Manipulation of Small-Scale Growth Cultures for Increased pDNA Yield

Adviser: Nate Oldenhuis

Matthew Huebner

Chemistry

Self-Assembly of Cobaloxime on TiO₂ Nanoparticles for Solar Driven H₂ Production

Adviser: Christine Caputo

Nathan Kenyon

Chemistry

Developing Methods for Assessing the Efficacy and Accuracy of Human and Robotic Operators in Analytical Chemistry

Adviser: Anyin Li

Rebecca Lahousse

Chemistry

Highly Ordered Cyclodextrin-Frameworks for Next Generation PFAS Absorption

Adviser: Aylin Aykanat

Lucas Laventure

Biochemistry, Molecular and Cellular Biology

Sonigashira Coupled Ligand for Improved Functionalization of Metal-Organic Framework Drug Delivery System

Adviser: Aylin Aykanat

Muriel Lubelczyk

Chemistry

Macrocyclic Chromophores as a Novel Class of Fluorescent Molecules

Adviser: Brittany White-Mathieu

Kaelin Marshall

Biochemistry, Molecular and
Cellular Biology

*Synthesis of Bio-Orthogonal Hydrogels
via β -Thiolactone-Mediated Native
Chemical Ligation*

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

Nicholas Mixon

Chemistry

*Clickable Synthetic Phospholipid for
Imaging Hydrogen Peroxide*

Adviser: Brittany White-Mathieu

Kaylee Murphy

Chemical Engineering

*Novel Eutectic Mixtures for
Cryopreservation*

Adviser: John Tsavalas

Phoebe Nitchals

Chemistry

*Optimization of Anchoring Conditions
for Isonicotinic Acid on TiO₂ NP for
Application in DSPS*

Adviser: Christine Caputo

Ella Roberts

Chemical Engineering, Theatre

*Optimizing Cobalt Loaded Carbon Doped
Graphitic C₃N₄ via Heat Exfoliations for
the Photocatalytic Reduction of CO₂*

Adviser: Gonghu Li

Dylan Sager

Biology

*Hydrogel Synthesis via Beta-Thiolactone-
Mediated Native Chemical Ligation
for Cell Encapsulation: Imaging-Based
Assessment of Cell Viability and Spreading*

Adviser: Nate Oldenhuis

Taylor Stock

Biology

*Optimization of Methods to Visualize
Hydrogen Peroxide at Cellular Membranes*

Adviser: Brittany White-Mathieu

**Civil and Environmental
Engineering — Group A**

Group Leaders: Philippe Kalmogo,
Tony Puntin

Logan Arseneault

Steven Carvalho

Will Gervais

Tyler MacLean

Matthew Squilanti

Civil Engineering

Lake Winnepesaukee Hotel

Development Project

Adviser: Anthony Puntin

Adarsh Bimali

Cole Capobianco

Environmental Engineering

Kelsey Purnomo

Civil Engineering

Brenna Weston

Environmental Engineering,
Sustainability

New Road Stormwater Treatment and

Lamprey River Outfall – Newmarket, NH

Adviser: Julie Paprocki

Olivia Burnham

Environmental Engineering

Sophie Heusser

Business Administration

Caitlin McNulty

Cole Werfel

Civil Engineering

Catey Selby

Environmental Engineering,
Sustainability

Quinn Williston

Engineering Physics

United States Department of Energy Solar

Decathlon Design Challenge

Adviser: Felix Devito

Dennis Chase

Jayleigh Genest

Paige Hornbeck

Mason Pillsbury

Jacob Ritchie

Civil Engineering

Electrosonics Building Renovation and

Site Remediation

Advisers: Lisa Damiano, Kenneth Flesher

Quinn Connors

Octavia Edwards

Isabel Gillam

Thomas Leahy

Civil Engineering

Durham, NH — U.S. Route 4 & Madbury

Road Reconstruction

Advisers: Mohamed Elshaer,

Majid Ghayoomi

**Civil and Environmental
Engineering — Group B**

Group Leaders: Philippe Kalmogo,
Tony Puntin

Nicholas Bates

Shawn Calle

Luke Palazzetti

Audrey Wagner

Civil Engineering

Orford Bridge Replacement

Adviser: Philippe Kalmogo

Tyler Beresford

Cole Cronin

David Fisk

William Mollo

Civil Engineering

Town of Hopkinton, NH

Intersection Redesign

Adviser: Anthony Puntin

Jacqueline Borruso

Silas Farwell

Tucker Fredricksen

Ryan Haskell

Jack Nolan

Civil Engineering

Barnstead Elementary School Addition

Adviser: Yashar Eftekhara Azam

Camila Cuellar Quiroga

Will Fortin

Kylie Krivis

Environmental Engineering

William Stark

Environmental Engineering,
Sustainability

PFAS in New Hampshire Background Soils

Advisers: Fei Han, James Malley

Patrick Jackson

Environmental Engineering

Corum Nichols**Ian Roessler**

Civil Engineering

Are Stream Crossings Resilient Enough?

Advisers: Jennifer Jacobs, Weiwei Mo

Liam Wistran

Environmental Engineering,

Sustainability

*Machine Learning Application in**Predicting Nitrogen Discharge from a Local**Wastewater Treatment Plant*

Adviser: Matthew Ferby

**Civil and Environmental
Engineering — Group C****Group Leaders: Philippe Kalmogo,
Tony Puntin****Reed Abry**

Luke Adams

Samuel Bibeau

Jackson DiMartino

Nicholas Lucas

Civil Engineering

NH Route 16 & NH Route 113 Roundabout

Adviser: Jo Sias

Thomas Anderson

Lucas Bernstein

Civil Engineering

Katie Bateman

Joseph Robinson

Environmental Engineering

*Bromley Mountain Ski Resort**Improvements*

Advisers: Matthew Florence,

Anthony Puntin

Cole Arcieri-Rowe

Timothy Clark

Jack Lambert

Cormac Lynch-Greenberg

Cole Smith

Civil Engineering

*Taxiway N Bridge at Manchester-Boston**Regional Airport*

Adviser: Eshan Dave

Daniel Bartus

Stephen Nolin

Luke Safford

Jacob Siegel

Parker Swanson

Civil Engineering

*Shaker Blvd Bridge Replacement in**Enfield, NH*

Advisers: John Byatt, Matthew Low

Isabella Falcone

Andrew Irwin

Zoe Wegrzyn

Environmental Engineering

Zachary Holt

Electrical Engineering

David Testerman

Environmental Sciences

*Understanding Soil Frost and Snow Depth**Dynamics at Kingman Farm*

Adviser: Jeremy Johnston

Ethan Gibson

Emily Lima

Gwendolen O'Connor

Lily Roberts

Ana Rolfe

Civil Engineering

*American Society of Civil Engineers**Steel Bridge*

Adviser: Yashar Eftekhari Azam

**Computer Science —
Applications****Group Leaders: David Benedetto,
Lisa Henry, Craig Smith****Andrew Butler**

Sean Connors

Jon Doherty

Rhy Fernands

Computer Science

Justin Fournier

Olivia Morel

Information Technology

*Nurse2Med: Diagnosis Translation for**Nurses and Practitioners*

Adviser: David Benedetto

Matthew Clement

Griffen Scogland

Information Technology

Begum Karabulut

Jack Shippee

Liam Snogles

Computer Science

*Exploring Cognitive Function and Balance**through Virtual Reality: Development of the**Tower of London and N-Back Test Games*

Advisers: David Benedetto, Sanghee Moon

Chase Cushman

Information Technology

Sam Heinze

Maxwell Nobrega

Rose Shore

Computer Science

CCOM Grant Reporting Platform

Adviser: Lisa Henry

Justin Evanza

Information Technology

Bing Yi Liu

Ambrose O'neil

Computer Science

AI Tool Guide

Adviser: Lisa Henry

Anthony Fleury

Nathan Steele

Computer Science

Dikshyanti Gyawali

Lucas Murray

Information Technology

Tools For Teams

Advisers: Matthew Plumlee, Craig Smith

**Computer Science —
Data Science****Group Leaders: David Benedetto,
Lisa Henry, Craig Smith****Kabir Bardai**

Analytics and Data Science

Boyd Crapo

Connor Harrington

Brandon Kady

Austin Snow

Computer Science

Free Fall Analysis

Adviser: David Benedetto

Nathaniel Bernich

Computer Science

Design and Analysis of Facial Recognition Algorithms for Home Monitoring

Adviser: Momotaz Begum

Dartagnan Birnie**David Scarborough**

Computer Science

Adam Elsner

Information Technology

Genesis Soebayago**Logan White**

Information Technology

PiRail: Data Simulation and Visualization

Adviser: Lisa Henry

Charlie Bischoff**Austin Kc****Spencer Whiting**

Information Technology

Emma Cheney**Lillian Van Rees**

Analytics and Data Science

Dongho Lee

Computer Science

Nursing Home Resident Matching Using the Gale-Shapley Algorithm

Adviser: David Benedetto

Joseph Blair**James Tyler**

Analytics and Data Science

Trevor DeMarco**Aidan Mahoney**

Computer Science

Human Movement Analysis

Advisers: David Benedetto, Sanghee Moon

Daniel Bocash**Benjamin Borges****Stella La Vallee****Val Schelkin**

Computer Science

Ashley Lingley

Information Technology

Palmer Oil — Home Heating

Adviser: Craig Smith

Tommy Byrne**Cooper French****Aiden Landman****Josh Testa****Benjamin Weisberg**

Computer Science

U.S. Military Housing Repair Cost Analysis

Adviser: Lisa Henry

Jacob Copp**Nicolas Karpf****Kyle Melville****Kevin Terwilliger**

Computer Science

Shuxian Guo

Analytics and Data Science

Roads of the Sea: Modeling Efficient Ocean Pathways from Vessel Data

Adviser: Lisa Henry

**Computer Science —
Infrastructure****Group Leaders: David Benedetto,
Lisa Henry, Craig Smith****Nathan Chasse**

Analytics and Data Science

Andrew Litcofsky**Shane Zarechian**

Computer Science

Devin Wilson

Computer Science, Political Science

Sustainability Data Hub

Advisers: Nagaraj Bukkapatnam, Shuili Du

Jameson Dunsford

Computer Science

Lightweight Web Vulnerability Scanner for Detecting Sql Injection and Xss

Adviser: Jason Reeves

Kris Fierro-Marin**Andrew Martin****Autumn Nippert****Jonathan Ranger****Mitch Tilton**

Computer Science

Space Weather Center

Adviser: Craig Smith

Will Gawron**Logan McKinley****Emily Pascetta****Christopher Thorn**

Computer Science

Ethan Healey**Aaron Limbat**

Information Technology

Cyber Operations Log Analysis for Threat Actors

Adviser: Lisa Henry

Patrick Rubinas**Jilly Sticca****Adam Vogler**

Computer Science

Megan Sorette

Information Technology

ET NavSwarm

Advisers: Craig Smith, May-Win Thein

Eben Tobler

Computer Science

Agile Software Development in Practice: An Agile Development Case Study

Adviser: Jonathan Niehof

Earth and Environment Sciences**Group Leader: Anne Lightbody****Jordan Christian**

Environmental Sciences

Magma Assembly during Continental Rifting: Insights from the Limagne Graben and the Chaîne des Puy

Adviser: Julie Bryce

Jacob Cossette

Earth Sciences

Brecciation in Pawtuckaway State Park

Adviser: Jo Laird

William deConstant

Environmental Sciences

Danielle Ford

Earth Sciences, Sustainability

Allison Lessard

Earth Sciences

Analyzing Forest Fires in New England: GIS-Based Assessment of Causes, Impacts, and Economic Challenges

Adviser: Matt Davis

Jordan Diprima

Earth Sciences

Evaluating the Causes of Land Subsidence on the U.S. Mid-Atlantic Coast Measured with InSAR

Advisers: Dominick Ciruzzi, Sophie Coulson, Matt Davis

Becker Gibson

Environmental Sciences

The Future of Hydropower in New England
Adviser: Danielle Grogan

Amelea Hauer

Earth Sciences

Isolating Charcoal in Synthetic Marine Sediments: Refining Carbon Removal Techniques

Adviser: Joel Johnson

Aaron Hoag

Sustainable Agriculture and Food Systems

The Effect of Simulated Drought on Leaf Functional Traits of Ecuadorian Páramo Grasses, Shrub, and Cushion Plants

Advisers: Emily Anders, Heidi Asbjornsen, Matthew Vadeboncoeur

William Joyner

Earth Sciences

Tilt Sensor for Acoustic Doppler Velocimeter with Remote Head

Adviser: Thomas Lippmann

Molly Kearing

Environmental Sciences, Sustainability

Trends in Coral "Hot Spots" in the Florida Keys: Implications for Ecosystem Restoration

Adviser: Mary Stampone

Maggie Krein

Environmental Sciences

Climbing Upstream: The Migration Struggle of Diadromous Freshwater Fish in the Hunua Ranges of New Zealand

Adviser: Shelley Langton-Myers

Maggie Krein

Environmental Sciences

Evaluating the Influence of Microplastics on Soil Microbial Community Composition through DNA Stable Isotope Probing

Adviser: Jessica Ernakovich

Riley Olsen

Environmental Sciences

Impact of Climate Change on Ecosystems in the Northeastern United States: A Probabilistic Approach to Predicting Biodiversity Shifts

Adviser: Anne Lightbody

Avery Wilson

Earth Sciences

Analyzing Seasonal Wind Trends and Climate Change Impacts along the East Coast of the United States (1990-2022)

Adviser: James Pringle

Electrical and Computer Engineering**Group Leader: MD Shaad Mahmud****Tony Abella**

Computer Engineering

Olivia Giralt

Electrical Engineering

An Automated Satellite Tracking System Utilizing Radio Frequency Detection

Adviser: Nicholas Kirsch

Ryan Baer

Computer Engineering

Bryan Strawn

Electrical Engineering

2-Wheeled Autonomous Robot for Parking Pass Enforcement

Adviser: MD Shaad Mahmud

Ryan Brown

Neuroscience and Behavior

Deep Sleep's Delta Rhythm Phase-Locked Biofeedback towards the Enhancement of Cerebrospinal Fluid Flux

Adviser: MD Shaad Mahmud

Dylan Callahan**Erin McDonald****Elizabeth Segal**

Electrical Engineering

Jackie Wolthers

Computer Engineering

Nocturnalyze: Real-Time Sleep Disturbance Therapeutic Device

Adviser: John LaCourse

Sabby Clemmons

Electrical Engineering, French

Progress in AI-Enabled Temperature Sensor Arrays for Monitoring Freeze-Thaw Cycles in New Hampshire

Advisers: Alexandra Contosta, MD Shaad Mahmud

Jared Comeau

Computer Engineering

Leveraging a Large Language Model for Movement Intention Recognition

Adviser: Diliang Chen

Davis Cullen**Sean Tobin**

Electrical Engineering

AI-Powered Smart Agriculture System for Optimized Plant Care and Growth Management

Adviser: MD Shaad Mahmud

Paxton Dionne**Alexander Watkins****Nicolas Zerbinopoulos**

Computer Engineering

Safe Whale Tagging (SWaT) with Power-Efficient Sensors

Advisers: Edward Song, May-Win Thein

Kevin Guzman Velez**Connor Marvin**

Computer Engineering

Development of High Precision Microlenses for Enhanced Solar Neutron Tracking

Adviser: Richard Messner

Zachary Holt

Electrical Engineering

Development of a Low-Cost Non-Dispersive Infrared Spectrometer for Real-Time Nitrous Oxide Detection

Adviser: MD Shaad Mahmud

Nolan Juneau

Electrical Engineering

Low-Cost LiDAR Lens Autofocus System for Cinema Cameras

Adviser: Richard Messner

Christina Karagianis**Jason Xue**

Computer Engineering

Abby Mathieu

Electrical Engineering

Autonomous Micromouse Vehicle for Efficient Maze Mapping and Navigation in Competitive Environments

Advisers: MD Shaad Mahmud, Se Young Yoon

Nora Kosakowski**Donovan Menick**

Electrical Engineering

Non-Invasive Diagnostic Device for the Detection and Monitoring of Bacterial Acidogenesis on Dental Enamel

Adviser: MD Shaad Mahmud

Logan LoPresti**Ayeden Rios**

Electrical Engineering

Bluetooth Signal Emission Detection System for Enhancing Pedestrian Safety in Urban Environments

Adviser: Nicholas Kirsch

Keith Sangillo

Computer Engineering

Subterranean Bioacoustic Sensing: A Novel Approach for Soil Monitoring and Pest Detection

Advisers: Jeff Garnas, MD Shaad

Mahmud, Rebecca Sideman

Abigail Saul

Electrical Engineering

Ryan Vorachak

Computer Engineering

Design and Development of a Theremin with Switchable Audio Effects for Enhanced Sound Modulation

Adviser: Nicholas Kirsch

Joseph Siemering

Computer Engineering

Advanced Hockey Shot Analysis Using Smart Puck Technology for Precision and Speed Measurement

Adviser: MD Shaad Mahmud

Wyatt Thomsen

Electrical Engineering

Embedded Golf Intelligence System with Real-Time GPS and Handicap Scoring

Adviser: Wayne Smith

Ria Varki

Biochemistry, Molecular and Cellular Biology

Assessing the Histone Methyltransferase Activity of the SET Domain of AP2VIIa-7 in Toxoplasma gondii

Adviser: Vicki Jeffers

Matthew Wojcik

Electrical Engineering

3D Print Monitoring System

Adviser: Richard Messner

Innovation Scholars**Group Leader: Shawna Hollen****Ryan Bedigian**

Bioengineering

Marlon Pinto

Chemistry

Max Sefcik

Physics

Leveraging Mechanical and Biological Properties of Composite Hydrogels to Induce Angiogenesis

Adviser: Linqing Li

Matt Berry

Undeclared

Kara Justice

Environmental Engineering

Marshall Lobsitz

Mechanical Engineering

Wave Energy Converter

Adviser: Matthew Florence

Jake Bishop**Alessandro Garofalo****Jimmy Sullivan**

Computer Science

Dining Hall Activity Monitor

Advisers: Kyle Ouellette, Dean Sullivan

Kestutis Biskis

Computer Science

Eamonn Brady

Political Science

Evan Houle

Electrical Engineering

Audio to MIDI Transcription Converter

Advisers: Kyle Ouellette, Dean Sullivan

Eric Boheen

Bioengineering

Formation of Biofilm-Like Layer of Probiotic Bacteria in Microgel Using Flagellar Display for Oral Delivery of Cancer Targeting Peptide

Advisers: Linqing Li, Kang Wu

Cayden Bowen**Jack Herber**

Bioengineering

Ryan Fernandez**Sebastian Nichols**

Chemical Engineering

*Sacrificial Gelatin to Pattern**Microstructure in Dextran Materials*

Adviser: Linqing Li

Cayden Bowen**Jack Herber**

Bioengineering

Ryan Fernandez**Sebastian Nichols**

Chemical Engineering

Scratch Essay

Adviser: Linqing Li

Yehuda Chandra

Information Technology

Sophia Harvey**Cecilia Lim**

Computer Science

OutFind

Advisers: Kyle Ouellette, Dean Sullivan

Allison Ciccarelli**Isabelle Creto**

Bioengineering

Hannah Kuhlmeier

Chemical Engineering

Affinity of Human Dermal Fibroblast Cells to Adhere to Collagen-Infused Cryogel Matrix

Adviser: Linqing Li

Matthew Clouthier**Thomas Creamer**

Mechanical Engineering

Sean Ludlam

Computer Science

Smart Drones: Construction and Manufacturing

Adviser: Benjamin Mitchell

Xander Cogan

Computer Science

Turning a Bicycle into Motorcycle

Adviser: Benjamin Mitchell

Asher Comtois**Eamon Furlong**

Chemical Engineering

Julia LaChapelle

Chemistry

Electrospinning

Adviser: Linqing Li

Alex Didenko

Electrical Engineering

Koushik Bhargav Nimoji**Lucas Savage**

Computer Science

Alec Scarlat

Chemical Engineering

UWB Tunnel Navigation

Advisers: Kyle Ouellette, Dean Sullivan

Isabella Falcone**Joseph Zeitz**

Environmental Engineering

Sean McLean

Chemical Engineering

Tetraselmis Algae Cultivation

Advisers: Felix Devito, Matthew Florence

Owen Fay

Applied Mathematics

Lucas Furlong

Earth Sciences

Azalea Houle

Undeclared

Logan Stoddard

Computer Science

Pattern-Synthesized Music

Adviser: John Gibson

Ryan Forcier

Information Technology

TrafficWX

Adviser: Kyle Ouellette

James Frady**Michael Schatvet****Kaden Song-Weiss**

Ocean Engineering

Leah Hochholzer

Mechanical Engineering

Samuel Mason**Sophie Tetreault**

Environmental Engineering

*Water Level Sensing in the**Hampton Estuaries*

Advisers: Matthew Florence,

Thomas Lippmann

Skylar Gagnon

Computer Engineering

*AutoMAD: Leveraging Large Language**Models for Automated Microarchitectural**Attack Discovery*

Adviser: Dean Sullivan

Matthew Gee**Zeus Hernandez Palos****Daniel Sixon**

Computer Science

Murphy Wall

Electrical Engineering

*Analysis of Racket Movement Utilizing**IMU Sensor and Mobile App*

Advisers: Kyle Ouellette, Dean Sullivan

Owen Glass

Environmental Engineering

Shav Kinderlehrer

Computer Science

Travis Parke**Alannah Ross**

Mechanical Engineering

Fish Driven Tank

Adviser: Benjamin Mitchell

Lily Grymko

Chemistry

*2D Modeling of 3D Shapes of a Torso**via Corsetry*

Adviser: John Gibson

Eddie Hall

Undeclared

Adam Vachon

Electrical Engineering

Motor Scooter Kit

Adviser: Benjamin Mitchell

Lucas Johnson

Computer Science

Elena Nichols

Chemistry

3D Geometric Models

Adviser: John Gibson

Claire Komar

Bioengineering

*Designer Hydrogels with Combinatorial**Adhesive Peptides for Cell Culture*

Adviser: Linqing Li

Varda Kotlyarsky**Teah-Lou Morel**

Mechanical Engineering

Eben Quenneville

Engineering Physics

Sensing Symmetries

Adviser: John Gibson

Martin MacLean

Chemistry

*Trying to Navigate Campus in a More**Compact Way*

Adviser: Benjamin Mitchell

Kati McNulty**Sanya Rane****Maggie Shepherd**

Bioengineering

*Creating Fibrin Gel to Integrate with**Cryogel Structure to Stabilize and Allow**for Cell Growth*

Adviser: Linqing Li

Leighton Menter**Taylor Porter**

Computer Science

PlantaSanté: Real-Time Plant Health

Advisers: Kyle Ouellette, Dean Sullivan

Katelyn Otis**Brendan Wright**

Mechanical Engineering

Safe Whale Tag (SWaT): Tag Deployment

Advisers: Matthew Florence, May-Win Thein

Michael Paradis

Computer Science

The Geometric Sand Art Generator

Adviser: John Gibson

Eben Quenneville**Michael Wentzel**

Engineering Physics

*On Machine Learning and the Phase of the**S-Matrix*

Adviser: Per Berglund

Matthew Ryan

Bioengineering

*The Impact of Microgravity on Vascular**Network Formation*

Adviser: Linqing Li

Mathematics/Statistics**Group Leader: Michelle Capozzoli****Ethan Cline**

Applied Mathematics, German

*Analyzing Trends in New Hampshire**Snow Quality*

Adviser: Michelle Capozzoli

Nicole Forno

Applied Mathematics

*How a Candle Burns: Understanding**Combustion Dynamics Using Free**Boundary Problems and Phase Change*

Adviser: Adam Boucher

Dasha Piotrowski

Applied Mathematics

*Order of the Convergence of the Partial**Differential Equation for Heat Diffusion*

Adviser: John McClain

Mechanical Engineering — Competition and Clubs

Group Leader: Juan Carlos Cuevas Bautista

Luke Abanilla

Engineering Physics

Max Allen

Physics, Russian

Zachary Drew

Trung Hoang

Owen Tolve

Mechanical Engineering

Quad-X Swarm: Satellite Test Platform

Adviser: May-Win Thein

Kyle Auger

Emerald Bell

Alan Chen

Riley Ducharme

Douglas Lafleur

Jack Radzelovage

Jonathan Raja

Mechanical Engineering

Erica Graham

Electrical Engineering

Aabhusan Gurung

Finance

Daniel Lavoie

Jackson Wozniak

Computer Science

LunaCats

Adviser: May-Win Thein

Eric Ball

Matt Harding

Henry King

Ben Litvany

Aidan MacRitchie

Michael Mahoney

Tyler Niswender

Mechanical Engineering

UNH Baja Racing

Adviser: Juan Carlos Cuevas Bautista

Anthony Bilodeau

Douglas Coulter

Nathan Pfirman

Matthew Wharton

Mechanical Engineering

Randall O'Neil

Jackson Scheele

Engineering Physics

Michael Paradis

Brendon Saranich

Computer Science

UNH SEDS: EPOCH II

Adviser: James Clemmons

Robin Cottrill

Jonathan Dean

Colin Gates

Sam Harms

Kristian Lane

Anthony Marchioni

Matthew McCoy

Matthew McMahon

Matthew Pelletier

William Sherts

Mechanical Engineering

University of New Hampshire Precision

Racing Team

Adviser: Juan Carlos Cuevas Bautista

Sam Haigh

Noah Quirolgico

Mechanical Engineering

FSAE Dynamometer

Adviser: Juan Carlos Cuevas Bautista

Evan Piette

Lekha Poudyal

Dhiren Timsina

Max Young

Mechanical Engineering

Quad-X-Swarm: Vertical Take-Off and

Landing Unmanned Aerial Vehicle Delivery

System (VTOL UAV Delivery)

Adviser: May-Win Thein

Mechanical Engineering — Faculty-Sponsored Projects

Group Leader: Juan Carlos Cuevas Bautista

Mackenzie Akbarieh

Roger Anderson

Benjamin Bergan

Jay Eggert

Mechanical Engineering

Whale Safe Mooring Lines

Advisers: David Fredriksson, Igor Tsukrov

Katy Cafaro

James Grady

PJ Menis

Mechanical Engineering

ECO-CRAB

Adviser: John Roth

Paul Cook

Mason Jacques

Adam McClellan

Dougray Thoreen

Mechanical Engineering

In Space Incremental Sheet Metal Forming

Advisers: Elizabeth Mamros, Benjamin

Mitchell, John Roth

Pedro Doukas

Mechanical Engineering

Development and Initial Testing of Robotic

Blacksmithing Apparatus

Advisers: Jinjin Ha, Brad Kinsey

Adam Hookway

Mechanical Engineering

Real-Time, Wireless Monitoring of

Oyster Behavior

Adviser: Easton White

Ezra Munholand

Mechanical Engineering

Microstructure Dependent Plasticity

Modeling of 304 Stainless Steel under

Multiaxial Loading

Adviser: Marko Knezevic

Nick Olibrice

Mechanical Engineering

Enabling Faster Reusability in Spaceflight:

Investigating Cold Spray Heat Shield

Technology

Adviser: John Roth

Mechanical Engineering — Industry

Group Leader: Juan Carlos Cuevas Bautista

Joseph Bailey
Will Callery
Nathan Facticeau
Alex Mills
Tatum Vansicklen
 Mechanical Engineering
Cog Railway EV-1: Fully Electric Locomotive
 Adviser: Iwaylo Nedyalkov

Josh Beaulieu
Thomas Trumble
Jackson Weber
Colby Wheeler
 Mechanical Engineering
Active Aero and Drag Reduction System for the UNH FSAE Car
 Adviser: Juan Carlos Cuevas Bautista

Seth Chartier
Marcus Herold
Philip Mather
Ethan Tillinghast
Brian Viscido
 Mechanical Engineering
Electric Ultralight Aircraft
 Adviser: Iwaylo Nedyalkov

Joseph D'Ambruoso
Owen Larouco
Nick Mazzie
Colin McCarthy
 Mechanical Engineering
Hip Protector
 Adviser: Iwaylo Nedyalkov

Mason Jacques
 Mechanical Engineering
Design of a Functionally Generated TPMS-Based Heat Exchanger
 Adviser: Iwaylo Nedyalkov

Ocean Engineering

Group Leader: May-Win Thein

Luke Abanilla
 Engineering Physics
Kevin Doherty
 Ocean Engineering
Matthew Finneron
Will Hamilton
Ryan Malloy
Charlie Morrill
Nate Scarola
Ian Woodman
 Mechanical Engineering
Benjamin Gonzales
 Computer Science
Marine and Naval Technological Advancements for Robotic Autonomy (MANTA RAY) Uncrewed Underwater Vehicle (UUV) Krill
 Advisers: Yuri Rzhannov, May-Win Thein

Caleb Allen
 Ocean Engineering
Zachary Bialous
Andrew Coco
Alex Hernandez
Layton Martinez
Shanna McGrath
 Mechanical Engineering
Aidan Boucher
Benjamin Gonzales
Kyle Ropp
Seth Rossman
 Computer Science
Max McKenney
 Mechanical Engineering, Sustainability
MANTA RAY ASV2
 Advisers: Yuri Rzhannov, May-Win Thein

Kelly Anderson
Brian Ferrara
 Mechanical Engineering
Seth Rossman
 Computer Science
Marine and Naval Technological Advancements for Robotic Autonomy (MANTA RAY) Ghost Uncrewed Performance Platform Submersible (GUPPS)
 Advisers: Yuri Rzhannov, May-Win Thein

Sofia Anestam
 Environmental Engineering, Sustainability
Ava Buckenmaier
 Finance
Alexandra Forbes
 English
Eoin Greiner
 Ocean Engineering
Liam Kersten-Guiler
 Civil Engineering
Olivia Kovisars
Thomas Sears
Benjamin Sporic
 Mechanical Engineering
Nathan Straussberg
 Environmental Engineering
WECSense
 Advisers: Erin Bell, Martin Wosnik

Anne Berg
Elani Daigle
 Ocean Engineering
Jack Meyer
 Mechanical Engineering
*Plant S.T.E.M.: Plant Mimic with Stiffness Tunability for Eco-Hydraulic Modeling of *Spartina alterniflora**
 Adviser: Tracy Mandel

Aidan Boucher
 Computer Science
Tiarnan Burke-Smith
Katelyn Otis
Trevor Pettigrew
Brendan Wright
 Mechanical Engineering
Paxton Dionne
Alexander Watkins
Nicolas Zerbinopoulos
 Computer Engineering
Emma Galbraith
 Computer Science, Sustainability
Murray Mckay
 Ocean Engineering
Safe Whale Tag (SWaT): A Low Cost Non-Invasive Whale Tag
 Advisers: Yuri Rzhannov, May-Win Thein

Kelsea Carmichael**Riley Hodgkins****Daniel Rinden****Corey Zima**

Ocean Engineering

Molly Derrigan

Mechanical Engineering

Kennedy McGrathMarine, Estuarine and Freshwater Biology,
Sustainability**Olivia Minguela-Georgakopoulos**

Marine, Estuarine and Freshwater Biology

*Shrimp Happens: Engineering a**Polyculture Recirculating**Aquaculture System*

Advisers: Michael Chambers,

Michael Coogan, David Fredriksson

Jonathan George

Computer Science

*Augmenting Electronic Nautical Charts**Using Three-Dimensional Gaussian Splatting*

Adviser: Thomas Butkiewicz

Physics**Group Leader: Nathaly Santiesteban****Matthew Breton**

Physics

*Setup and Installation of an 8T Magnet**and 1.5K Cryostat System for Dynamic**Nuclear Polarization*

Adviser: Nathaly Santiesteban

Henri Chretien

Physics

Magnetic Enhancements of 6-81 Permalloy

Adviser: Marc Lessard

Torsten Diesel

Physics

*Improvements to the Technique for**Measuring Low-Temperature Scintillation**Properties*

Adviser: Fabian Kislat

Brigitte Dugas

Physics

*Kinematic Generator for Inclusive and**Semi-Inclusive Experiment at Jefferson Lab*

Adviser: Nathaly Santiesteban

Evan Menard

Mathematics, Physics

*Commissioning the Extended Interaction**Oscillator (EIO) Tube for a 5T Dynamic**Polarization System*

Adviser: Nathaly Santiesteban

Joshua Smee

Physics

*Observing Exoplanet Transits Using**Differential Photometry*

Adviser: John Gianforte

Physics — Engineering**Group Leader: Nathaly Santiesteban****Alexandra Antar**

Engineering Physics, Sustainability

*Design and Construction of Material Insert**for Dynamic Nuclear Polarization*

Adviser: Nathaly Santiesteban

Cam Conant

Mechanical Engineering

Devin Phyllides

Physics

Eben Quenneville

Engineering Physics

*3UCubed Flight Build, Instrument**Calibration, and Data Processing*

Advisers: Noe Lugaz, Sanj Mehta

Anna Geho

Classics, Engineering Physics

*Calculating Ricci-Flat Metrics for Calabi-**Yau Manifolds with Machine Learning*

Adviser: Per Berglund

Alec Mercer

Engineering Physics, Sustainability

*3D Surface Reconstruction of Quasi-**Cylindrical Structures Using Panoramic**Digital Image Correlation*

Adviser: Matthew Bersi

Jackson Scheele

Engineering Physics

*Towards Novel 3D Winds Instrumentation**for the Thermosphere*

Adviser: James Clemmons

University-Wide Undergraduate Sustainability Research Symposium

Oral Presentations

Wednesday, April 23**9 a.m.–12 p.m.****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.

Sustainability 501

Adviser: Betty Woodman

Hannah Albers

Environmental Conservation and

Sustainability, Sustainability

Emory Bachand**Ella Pardy**

Business Administration, Sustainability

Kayla Doan

Undeclared

Talia Kay

Economics, Sustainability

*Sustainable Menstruation***Drew Allen****Ben MacDougall****Jared Semper**

Civil Engineering, Sustainability

Caden Babcock

Finance

Sustainable UNH Infrastructure

Amanda Belanger

Marketing, Sustainability

Marisa Bianchi

Geography, Sustainability

Audrey Quinn

Political Science, Sustainability

Jordan Stanley

Social Work, Sustainability

*Equitable Food Access: Cat's Cupboard***Chloe Best**

English

Kate Brandenburg

Environmental Sciences, Sustainability

Samantha Sambuaga

Sustainability

Laura Zakorchemny

Philosophy, Sustainability

*Conservation and Education***Sydney Blair**

English, Sustainability

Natalie Brown

Sustainability, Zoology

Lily Tompkins

Communication, Sustainability

*Protecting Our Parks***Mackenzie Brown-Davis**

Civil Engineering, Sustainability

Ainsley Christianson

Management, Sustainability

Margaret McGregor

Art: Studio Art, Sustainability

Alec Mercer

Engineering Physics, Sustainability

Roslynn Moe

English, Sustainability

*Plastic Waste on University Campuses***William Cleaveland**

Community and Environmental

Planning, Sustainability

Kara Hatafsky

Sustainability, Zoology

Julia Mistretta

Community and Environmental Planning

Reily Tighe

Communication, Sustainability

*Advancing Accessibility and Sustainability in Transportation Systems***Kaleigh Dockray**

Sustainability, Undeclared

Phoebe Green

Economics, Sustainability

Gavin Knudsen

Finance, Sustainability

Shay Sullivan

Marketing, Sustainability

*Sustainable Business Model***Elizabeth Duchesne**

Psychology, Sustainability

MJ Firth

Community and Environmental

Planning, Sustainability

Autumn Horsey

Biology, Sustainability

Alayna Willette

Nursing, Sustainability

*Help Yourself: Holistic Healthcare***Emma Galbraith**

Computer Science, Sustainability

Brooke Rafter

Marketing, Sustainability

*NH Youth Climate Action Clinics: Bringing**Sustainability into the K-12 Classroom***Colin McGuinness**

Economics, Sustainability

Zachary Morin

Finance, Information Systems and

Business Analytics, Sustainability

Victoria Whitcomb

Sustainability, Wildlife and

Conservation Biology

Jordan Wright

Community and Environmental

Planning, Sustainability

*NextGen Sustainability***Sustainability 750 Capstone****Sofia Anestam**

Environmental Engineering,

Sustainability

Laura Karpa

Information Systems and Business

Analytics, Sustainability

Shane McKenna

Community and Environmental

Planning, Sustainability

Durga Raja

Environmental and Resource Economics,

Sustainability

Josh Salowe

Communication, Sustainability

Decarbonizing the UNH Pool

Adviser: Erin Hale

Nicholas Booth

Business Administration

Audrey Jacques

Anthropology, French, Sustainability

Lindsay Krois

Marketing

Max Orestis

Environmental and Resource Economics

Lawson's Finest's Footprint

Adviser: Catherine Taylor

Aliana Carbone**Ella Kolber**

Business, Sustainability

Ava Graham

Sustainability, Wildlife and

Conservation Biology

Will Oglesby

Recreation Management and Policy,

Sustainability

*Expanding Microenterprises for Rural**Kenyan Women*

Adviser: Erin Hale

Donavyn Corcoran**Abigail Forcier**

Environmental Sciences, Sustainability

Danielle Ford

Earth Sciences, Sustainability

Alyssa Jackson

Geography, Sustainability

Mapping Vernal Pools in Newmarket

Adviser: Erin Hale

Nate Croft

Management, Sustainability

Danika Miller

Sociology, Sustainability

Daniel deMoore

Communication, Sustainability

Salamander Brigade Community Outreach

Adviser: Erin Hale

Kate Daugherty-Miller

Communication, Sustainability

Abigail Saucier

Biology, Sustainability

Molly Smith

Political Science, Sustainability

Brenna WestonEnvironmental Engineering,
Sustainability*Climate Action Plan for Gather*

Adviser: Erin Hale

Josephine DeMerit

Biology, Sustainability

Fiona Flaherty

English, Sustainability

Anna Maccaroni

Sociology, Sustainability

Brett Schultz

Finance, Sustainability

Cooperative Food Production in Durham, NH

Adviser: Erin Hale

Anna Gohring**Benjamin Kaminski**Recreation Management and Policy,
Sustainability**Hannah Marland**

Political Science, Sustainability

Brooke Rafter

Marketing, Sustainability

Justin Wentworth

Environmental Sciences, Sustainability

*Trash2Treasure: Expanding a Network
for New Wildcats!*

Adviser: Erin Hale

Max McKenneyMechanical Engineering, Sustainability
*Sustainable and Accessible Infrastructure
Solutions for Wamunyu Special School
in Kenya*

Adviser: Erin Hale

Catey SelbyEnvironmental Engineering,
Sustainability*Frozen Commons: Change, Resilience,
and Sustainability in the Arctic: Serious
Gaming for Food Security and Sovereignty
in Rural Alaskan Communities and Tribes*
Adviser: Erin Hale**William Stark**Environmental Engineering,
Sustainability*Investigating PFAS in Soil as Social Justice
Issue in New Hampshire*

Advisers: Erin Hale, James Malley

Various Topics**Emily Abrusci**Ecogastronomy, Environmental
Conservation and Sustainability
*The Cost of Local: Exploring Food
Affordability on the NH Seacoast*

Adviser: Daniel Winans

Marisa Bianchi

Geography, Sustainability

Kylie ShortChemistry, Environmental Sciences
Sustainability Advocates

Adviser: Kelsey Farrell

Donavyn Corcoran

Environmental Sciences, Sustainability

Victoria WhitcombSustainability, Wildlife and
Conservation Biology*Building Community and Accessibility
through Biking: Cat Trax Bike
Share Program*

Adviser: Kailei Wedge

Georgia Gempler

Neuroscience and Behavior

*Interventions for Recidivism Reduction
in Violent Youth Offenders: A State and
National Level View of Juvenile
Justice Detention*

Advisers: Alex Johnson, Kate LaVigne

Shane Gleeson

Analytical Economics, Sustainability

Sophie Hodge

Biomedical Science

*Phytoremediation of Lead Contaminated
Soil by Golden Bantam Corn*

Adviser: Maegan Gagne

Benjamin KaminskiRecreation Management and Policy,
Sustainability**Justin Wentworth**Environmental Sciences, Sustainability
*T2T Understanding Our Educational
Impact on Students*

Adviser: Kelsey Farrell

Abigail KincaidEnvironmental and Resource Economics,
Sustainability*How Can We Build Community and
Awareness around Sustainability through
Outreach and Social Media?*

Adviser: Kelsey Farrell

Brett Schultz

Finance, Sustainability

*Urban and Peri-Urban Agriculture in New
Hampshire*

Adviser: Erin Hale

University-Wide Undergraduate Sustainability Research Symposium

Poster Presentations

Wednesday, April 23**9 a.m.–1 p.m.****Memorial Union Building,
Rooms 334, 336, 338, and 340**

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.

ANSC 690**Adviser: Andrew Conroy****Hannah Born**

Wildlife and Conservation Biology
The Genetic Consequences of Cheetah Inbreeding in Namibia

Mae Chiesa

Biomedical Science
Assessing Namibia's Conservencies' Anti-Poaching Efforts before and after USAID

Vivianna Cosgrove

Zoology
The Effect of the Illegal Wildlife Trade on Cheetah Populations in Namibia

Royce D'Amelio

Biomedical Science
The Price of a Horn: Poaching, Protection, and the Future of Namibia's Rhinos

Stephanie Dodson

Neuroscience and Behavior
Successes and Shortfalls of Resettlement Policies in Namibia

Morgan Dubois

Animal Science
Is Game Farming a Viable Conservation Tool in Namibia?

Nicki Hyslop

Animal Science
Ostriches on Game Farms in Namibia: Past, Present, and Future

Elizabeth Ingerson

Animal Science
The African Wild Dogs: Conserving Namibia's Most Threatened Carnivores

Sydney Irons

Animal Science
The Past, Present, and Future of the Namibian Wild Horses

Kaitlyn Kaine

Wildlife and Conservation Biology
Cheetah Rewilding in Namibia: Effectiveness and Challenges

Loralei Kyes

Animal Science
The Impact of Climate Change on Vector Borne Disease Patterns in Namibian Wildlife

Charlotte Lewis

Biology
Managing and Controlling Rift Valley Fever and Foot and Mouth Disease in Namibian Cattle

Emily Mezick

Homeland Security, Spanish
Economic Disparities Contributing to the Human Wildlife Conflict in Namibia

Makayla Miller

Animal Science
The Khoadi Hoas Community Conservancy and Their Impact on Namibia's Wildlife

Emily Molnar

Zoology
The African Cheetah: A Genetic Disaster Destined for Disease?

Abby Morley

Wildlife and Conservation Biology
Mitigating Human-Elephant Conflict in Northern Namibia

Alex Myers

Animal Science, Veterinary Technology
Namibia's Plan and Progress to Eradicate Dog-Mediated Rabies

Nicole Oldmeadow

Animal Science
The Controversy of Lifting the Elephant Ivory Trade Ban

Mary Osmer

Sustainable Agriculture and Food Systems
The Art of Fiber: Capitalizing on 120 Years of Karakul Sheep in Namibia

Tori Peterson

Animal Science, Applied Animal Science
African Penguin Decline and Conservation in Namibia

Jared Rao

Animal Science
Namibia's Contentious Veterinary Cordon Fence

Emily-Grace Raphael

Animal Science
How Understanding the Cheetah Genome Impacts Conservation in Namibia

Gabe Rhodes

Zoology
Exploring Human-Leopard Conflicts in Namibia

Luke Safford

Civil Engineering
The Plight of the Pangolin in Namibia: Can It be Reversed?

Emily Santos

Animal Science
*The Impact of Climate Change on Namibia's Unique Desert Elephants, *Loxodonta africana**

Sophia Santos

Animal Science
The Successes and Failures of Livestock Guardian Dogs in Namibia

Peyton Stein

Sustainable Agriculture and Food Systems
Political, Economic, and Social Challenges in Namibian Fishing Industry

Kaleigh Tsakiris

Animal Science
The History and Anticipated Future of Free Roaming Desert Lions of Northwestern Namibia

Kalei Wallace

Business Administration, Sustainable Agriculture and Food Systems
Can Namibia Sustain Its Success in Black Rhinoceros Conservation?

Makayla Wolfe

Animal Science
The Role of Cull Hunting on Wildlife Populations in Namibia

EcoGastronomy Capstone**Adviser: Daniel Winans****Emily Abrusci**

Ecogastronomy, Environmental Conservation and Sustainability
The Cost of Local: Exploring Food Affordability on the NH Seacoast

Matthew Corso

Anthropology, Ecogastronomy
From Orchard to Glass: The History of Fruit Wine in New England

Alexa DerBoghiosian

Ecogastronomy, Nutrition

*Roots of Resilience: Tackling Mental Health Challenges within Farming***Avery Hathaway**

Biology, Ecogastronomy

*A Beginner's Guide to Biodynamic, Organic, and Sustainable Wines***Sarah Jensen**

Ecogastronomy, Management

*Cracking the Code: How Misleading Labels Shape Consumers' Choices***Katie Johnstone**

Ecogastronomy, Environmental

*Conservation and Sustainability
Shear Growth: Using Wool and Hair as Nature's Fertilizer***Christian Katumba**

Ecogastronomy, Economics

*Identity and History: The Journey of Liberian Cuisine***Emma Lachapelle**

Ecogastronomy, Nutrition

*Exploring Student Involvement through Food Waste Trends in the National School Lunch Program***Nia Lessard**

Ecogastronomy, Nutrition

*Contributing Factors of Malnutrition among Adolescents in Ethiopia***Caeleigh Reger**

Ecogastronomy, Hotel and

*Hospitality Management
Saving Grains: Transforming Brewer's Spent Grain into Sustainable Food Solutions***Devon Smith**

Ecogastronomy, Entrepreneurial Studies

*Sweet Tooth Chronicles: Desserts with a Conscience!***Sustainability 401****Scena Armes**

Business Administration

Kaylie Ukstins

Neuroscience and Behavior

Sustainable Consumerism in Large Retail Companies

Adviser: Erin Hale

Ella Blomfield-Brown

Environmental Engineering,

Sustainability

Sustainable Water Management: Ensuring Quality and Efficiency

Adviser: Max Edwards

Kylie Boyle

Finance, Marketing

Maddie Serfass

Biology

Food Insecurity in New Hampshire

Adviser: Erin Hale

Kyle Conti**Curtis Kimball**

Mechanical Engineering, Sustainability

Protecting Our Pollinators: How Can We Bee More Sustainable at UNH?

Adviser: Erin Hale

Owen Fay

Applied Mathematics

Aiden Parsons

Computer Science

Babi Subedi

Biochemistry, Molecular and

Cellular Biology

Local Energy Consumption

Adviser: Erin Hale

Anna Hogan

Biochemistry, Molecular and

Cellular Biology

Emily Palermo

Animal Science

Esher Swanson

Marine, Estuarine and Freshwater

Biology, Sustainability

Quantity and Characterization of Marine Debris across Four Beaches on the Gulf of Maine

Adviser: Erin Hale

Sofia Holmes

International Affairs, Sustainability

Emma Rawlson

Marine, Estuarine and Freshwater Biology

Caroline Savage

Wildlife and Conservation Biology

Climate and Pollution Impacts on Coastal New Hampshire

Adviser: Erin Hale

Amy Kindstedt

Political Science

Mykala McConaghy

Environmental Engineering

Luke Wolfe

French, History

Fostering Knowledge of Invasive Species in New Hampshire: Identification, Management, and Outreach

Adviser: Erin Hale

Eve Libby

Mechanical Engineering, Sustainability

Deforestation in the Amazon Rainforest Caused by the Cattle Industry

Adviser: Erin Hale

William Stark

Environmental Engineering,

Sustainability

Investigating PFAS in Soil as Social Justice Issue in New Hampshire

Advisers: Erin Hale, James Malley

The Naked Arts— Creativity Exposed! (Act I)

**Wednesday, April 23
12–2 p.m.**

**Paul Creative Arts Center,
Gallery 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.

Amy Alterisio

Fine Arts

Growing Pains

Adviser: Benjamin Cariens

Garrett Cote

Business Administration, Fine Arts

Fashion: Silhouette and Character

Adviser: Benjamin Cariens

Emily Dallaire

Fine Arts

Joy: In Color and Form

Adviser: Benjamin Cariens

Tia DiMicelli

Marketing

You'll Be Back: Sensory Cognition's

Influence on Audience Retention

Adviser: Bruce Pfeiffer

Kelsey Loucks

Art: Art History, Studio Art, Fine Arts

*Ladylike: A Conversation of Craft
and Culture*

Adviser: Benjamin Cariens

Jamie Senzapaura

Studio Art

Incomplete Thoughts

Adviser: Benjamin Cariens

Cat St. Hilaire

Fine Arts

A Conversation about Ghosts

Adviser: Benjamin Cariens

Daisy Tuttle

Fine Arts

Body's Rituals

Adviser: Benjamin Cariens

Julia Woulfe

Communication Arts, Theatre

Selling My Soul: A Look into Abuse of

Power in Theatre and Film

Adviser: Tom Alsip

UNH Manchester Undergraduate Research Conference

Poster Presentations

**Wednesday, April 23
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.

Asma Abderrahim

Biotechnology

Investigating the Effects of FOXN2

Overexpression on Cilia in Retinal Pigment

Epithelium (RPE) Cells

Adviser: Kristen Johnson

Gabriella Amirtham

Blake Dion

Psychology

Jenn Madsen

Olivia Minissale

Madison Wheeler

Neuropsychology

Aadam Saidybah

Psychology

The Effects of Target Eccentricity and

Quadrant Placement on the Perception

of Motion-Induced Blindness: A

Replication Study

Adviser: John Sparrow

Theylo Antunes Chaves

Juan Arango

Erik Bailey

Sean Bonin

Christopher Charbonneau

Jacqueline Ebel

Jacob Hawkesworth

James Lafond

Alvin Lin

Justin Myshrall

Ali Osman

Joshua Simard

Computer Science

Kyle Belouin

Brandon Contreras

Katharyn Harrington

Fernando Salazar Perez

Computer Information Systems

UNH Manchester Computing Capstone:

A Group Research Project in Automatic

Speech Recognition

Adviser: Michael Jonas

Juan Arango

Sanghavi Kandukuri

Rikitha Srimani Muthyala

Lakshmi Neeraja Nalluri

Chaithanya Papan

Computer Science

Team Marvel's LLM-Based Smart

Chatbot for Syllabus Validation

Adviser: Karen Jin

Stacia Bacon

Biology

Mammals of the Wild: Which Species

Requires the Most Human Assistance?

Adviser: Suzanne Cooke

Sylvia Baffour Awuah

Raja Venkatesh Babu Gaddam

Biotechnology

Bacterial Expression and Purification of

pNCS Yellow Fluorescent Protein (YFP)

Adviser: Won Hyuk Suh

Charishma Bandari

Sahanaa Chippa

Pradeep Reddy Malapati

Greeshma Srinidhi Maramraju

Shravani Solipuram

Computer Science

Team PowerRangers' Chatbot for Keeping

NECHE Compliant Syllabus in Check

Adviser: Karen Jin

Nishitha Prakashini Boddeti**Ninu Jacob**

Biotechnology

*Enhanced Green Fluorescent Protein**(EGFP) Production in Mammalian Cells*

Adviser: Won Hyuk Suh

Tenzin Bodh**Nghi Huynh**

Biotechnology

*Optimization of Bacterial Expression**and Characterization of Blue Fluorescent**Protein (BFP)*

Adviser: Won Hyuk Suh

Tenzin Bodh

Biotechnology

*Synergistic Antitumoral Effect of the**Cordycepin and Gemcitabine in PANC1**Cell Line*

Adviser: Mark Scimone

Sudheshna Bommareddy**Chaim Tendler**

Biotechnology

*Bioprinting of Brain Cancer Cells versus**Brain Stem Cells*

Adviser: Won Hyuk Suh

Mackenzie Bruhm**Nishnat Narayan Nagar**

Biotechnology

*Expression and Characterization of**Monomeric Red Fluorescent Protein**(mRFP) in an Immortalized Mammalian*
Cell Line

Adviser: Won Hyuk Suh

Matthew Chamberlain

Biological Sciences

*Novel Phage Discovery for Soil Bacterium**Arthrobacter globiformis*

Adviser: Kyle MacLea

Sahanaa Chippa

Computer Science

*Exploratory Real-World Data Analysis:**A Structured Database and Visualization*
Approach

Adviser: Mihaela Sabin

Esther Choi

Biology

Abhilash Achary Kammari**Trinity Minard**

Biotechnology

*Bioprinting and Characterization of**Induced Pluripotent Stem Cells and**Neural Stem Cells*

Adviser: Won Hyuk Suh

Esther Choi

Biology

Abhilash Achary Kammari**Trinity Minard**

Biotechnology

*Gene Expression Analysis of Human**Stem Cells*

Adviser: Won Hyuk Suh

Layne Cilley**Charan Balajee Salari**

Biotechnology

*Investigation into the Stem Cell**Biocompatibility of Polydimethylsiloxane*
(PDMS)

Adviser: Won Hyuk Suh

Nathan Clark**Jasen Cusson**

Biotechnology

*Producing and Quantifying GRvT from**Transformed E. coli*

Adviser: Won Hyuk Suh

Brandon Contreras

Computer Information Systems

Sai Chandra Guntukula**Sai Shiva Jaligapu****Sindhura Mallepoola****Punnulatha Rout**

Computer Science

*Automation of Document Verification:**Team Essentials' NECHE Compliant**Syllabus Checker*

Adviser: Karen Jin

Delaney Cote

Public Service and Nonprofit Leadership,

Women's and Gender Studies

*Grassroots Advocacy with NHLA: How**Civic Action Is Impactful*

Advisers: Alex Johnson, Kate Lavigne

Jasen Cusson

Biotechnology

Exploring the Bacteria in Unpasteurized
Cow Milk

Adviser: Suzanne Cooke

Jacob D'Onofrio

Psychology

Robots and Dementia Care

Adviser: Alison Paglia

Eric DiGangi

Biological Sciences

The Effects of Capsaicin on the Antibiotic
Production and Resistance of Soil Bacteria

Adviser: Suzanne Cooke

Adam Essabir

Biological Sciences

*Optimizing Yeast Extract Concentration**for Enhanced Bacterial Growth and**Antibiotic Synthesis*

Adviser: Suzanne Cooke

Allison French**Sandeepthi Kulkarni**

Biotechnology

*Temperature Optimization of tdTomato**Synthesis in E. coli*

Adviser: Won Hyuk Suh

Allison French**Joli White**

Biotechnology

*The Effect of Induced Hypoxia on**Neuronal Differentiation*

Adviser: Won Hyuk Suh

Sansia Stephen Furtado**Ninu Jacob**

Biotechnology

*Effects of Paclitaxel and Vitamin D on**Panc-1 Cell Growth, Invasion, and**Cell Death*

Adviser: Mark Scimone

Sansia Stephen Furtado**Marion Olsen**

Biotechnology

The Effect of Temperature on Synthesis of
*Enhanced Green Fluorescent Protein in**Bacterial Cells*

Adviser: Won Hyuk Suh

Raja Venkatesh Babu Gaddam

Biotechnology

Effects of Hypoxia and Cytoskeletal Disruption on Cancer Cells

Adviser: Mark Scimone

Chayanika Gogoi**Rachel Pitt**

Biotechnology

Determination of Toxicity of Chemotherapeutic Drugs Gemcitabine, Paclitaxel, and Gefitinib When Applied in Combination to Human Pancreatic Cancer Cells

Adviser: Mark Scimone

Chayanika Gogoi**Lata Patnaik**

Biotechnology

Expressing Human Transglutaminase 2 (TG2) Protein in E. coli

Adviser: Won Hyuk Suh

Chayanika Gogoi**Rachel Pitt**

Biotechnology

Knock-Down of Cilia Genes in Schmidtea mediterranea: From the Classroom to Research Project

Adviser: Kristen Johnson

Isabel Graves

Biotechnology

The Pharmacy Technician Journey: Gaining Education to Bridge Healthcare and Medication Safety

Adviser: Suzanne Cooke

Jordan Havens

Psychology

The Use of Ketamine for People Living with Alzheimer's Disease

Adviser: Alison Paglia

Jacob Hawkesworth**Lokesh Reddy Kasumuru****Vinod Mamillapalli****Rashmi Rashmi****Vamsi Sai Krishna Valluru**

Computer Science

Smart Campus Assistant: An AI Guide for Computing Program Advising and Student Orientation

Adviser: Karen Jin

John Horangic

Biotechnology

Exploring FoxN2 Omics in Pancreatic Cancer

Adviser: Kristen Johnson

Lorraine Jerome

Biotechnology

Somatic Gene Therapy and Its Pharmaceutical Applications

Adviser: Suzanne Cooke

Rithika Kakkireni

Biotechnology

Lata Patnaik

Biotechnology

Gene Expression Analysis of Human Neural Stem Cells

Adviser: Won Hyuk Suh

Dean Kallfelz

Biotechnology

Manchester Waterworks Internship

Adviser: Suzanne Cooke

Apurva Nitam Kanekar

Biotechnology

Isolation and Characterization of Antibiotic-Producing Bacteria

Adviser: Suzanne Cooke

Agathokli Kondi

Biotechnology

Pharmacy Technician Certification

Adviser: Suzanne Cooke

Chloe Kroner

Biology

Data Analysis

Adviser: Suzanne Cooke

Gabriela Larenas Barrera**Erin Taylor**

Biotechnology

Effect of Ampicillin Concentration on Blue Fluorescent Protein (BFP) Production in Bacterial Cells

Adviser: Won Hyuk Suh

Gabriela Larenas Barrera**Erin Taylor**

Biotechnology

Effect of Camptothecin on HeLa Cells' Viability under Hypoxic and Normoxic Conditions

Adviser: Mark Scimone

Amanda Majchrzak

Biological Sciences

The Impact of Customized Adaptive Equipment on Pediatric Engagement and Functional Maintenance

Adviser: Suzanne Cooke

Megan McKinnon

Psychology

Madison Wheeler

Neuropsychology

The Relationship between Observed Anxious Behaviors in Children and Parent Reported Symptoms

Adviser: Nicholas Mian

Trinity Minard**Charan Balajee Salari**

Biotechnology

Green Fluorescent Protein Production in Bioflo120 Bioreactor

Adviser: Won Hyuk Suh

Andres Monsalve**Amber Partlow**

Biotechnology

Characterization and Expansion of Neural Stem Cells Using Microcarriers

Adviser: Won Hyuk Suh

Andres Monsalve

Biotechnology

Sofia Renna

Biological Sciences

Characterization of Monomeric Red Fluorescent Protein (mRFP) Expression in Transfected HEK293 Cells

Adviser: Won Hyuk Suh

Jayadeep Reddy Muga**Venkat Sai Vainala****Deepthi Velicharla****Rishikesh Velpula****Zitai Xu**

Computer Science

Your AI Companion for UNH Manchester Grad Orientation and Computing Course Guidance

Adviser: Karen Jin

Angelina Oliva

Biotechnology

Daily Testing of Drinking Water

Adviser: Suzanne Cooke

Andy Ortiz

Biology
The STEM Mobile Teaching K-Gray
Adviser: Suzanne Cooke

Mavya Padamati

Nadeem Syed
Biotechnology
Evaluating and Optimizing Fluorescent Protein Expression in E. coli: Shake Flask versus Bioreactor Cultures
Adviser: Won Hyuk Suh

Amber Partlow

Biotechnology
Job Shadowing in the Dental Field
Adviser: Suzanne Cooke

Lata Patnaik

Biotechnology
Effect of Camptothecin on CHO-K1 Cells in Hypoxic vs. Normoxic Environment
Adviser: Mark Scimone

Ashok Kumar Perumalla

Computer Science
Automating Data Management with Microsoft Power Platform Tools
Adviser: Mihaela Sabin

Hana Phaneuf

Biotechnology
Monitoring the Heart: Central Monitoring and Telemetry
Adviser: Suzanne Cooke

Rashmi Rashmi

Computer Science
Integrating React and Spring Boot Soccer Platform with Payment Service
Adviser: Mihaela Sabin

Summer Shiflett

Biological Sciences
Education and Research on Marine Life in the Gulf of Maine
Adviser: Patricia Halpin

Meghan Slater

Biological Sciences
The Art of the Draw: Adapting in Phlebotomy
Adviser: Suzanne Cooke

UNH Manchester URC Cinema Arts Day

**Thursday, April 24
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.

Adviser: Anthony Tenczar

Luis Berrios Charris
Communication Arts
A Poker Documentary: High Stakes

Daniel Enright
Communication Arts
Trouble on the Mountain: A Look Back

Ashleigh Hodson
Communication Arts
Close Call

Ben Marotta
Communication Arts
Feeling Lucky?

Ben Marotta
Communication Arts
Lee

Mackenzie Mooney
Communication Arts
Generations of Coins

Logan Plante
Communication Arts
Hard Work for Hard Shells

Logan Plante
Communication Arts
What Mainers Do in the Winter

Jackson Pollaro
Communication Arts
A Skateboarding Injury: Trauma to Triumph

Owen Stuart

Communication Arts
10 Minutes

Evan Swenson

Communication Arts
Mindset

The Naked Arts— Creativity Exposed!

Act II

**Thursday, April 24
12:40–2 p.m.
Paul Creative Arts Center,
Gallery 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.

Phoebe Bowen
Theatre
Nightmare
Adviser: Tom Alsip

Nolan Cloutier
Fine Arts
Radiance Amidst the Ripples
Adviser: Benjamin Cariens

Lily Dube
Fine Arts
Immortal Love
Adviser: Benjamin Cariens

Miranda Fay
Fine Arts
Lingering Presence
Adviser: Benjamin Cariens

Shannon Gormley
Fine Arts
I Am Woman
Adviser: Benjamin Cariens

Owen Hughes

Music

Seduced into Carpentry: Music Technology as Limitation and Inspiration in the Work of Harry Partch and Beyond

Adviser: Rose Pruiksma

Courtney Kostopoulos

Nutrition, Theatre

Swim Good

Adviser: Tom Alsip

Mitra Nutter

Art: Studio Art

Into the Absurd

Adviser: Benjamin Cariens

UNH Manchester URC Engineering Technology Senior Capstone Robotics Presentations

Senior Project Presentations

Friday, April 25**8 a.m.–4 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.

Samantha Bristol

Electrical Engineering Technology

Bryce Bush**Mitchell Williams**

Mechanical Engineering Technology

*UNHM VEX U Robotics Competition**Team UNHM#3*

Advisers: Robert Arredondo,

Takahide Ohkami

William Bryant

Electrical Engineering Technology

Kieran McCurdy**Julius Soti**

Mechanical Engineering Technology

*UNHM VEX U Robotics Competition**Team UNHM#4*

Advisers: Robert Arredondo,

Takahide Ohkami

Wyatt Burke**Mitchell Dionne**

Mechanical Engineering Technology

Philip McKendall

Electrical Engineering Technology

*UNHM VEX U Robotics Competition**Team UNHM#1*

Advisers: Robert Arredondo,

Takahide Ohkami

Chandler Haggarty**Benjamin Rairdon**

Mechanical Engineering Technology

Stephen Schwab

Electrical Engineering Technology

*UNHM VEX U Robotics Competition**Team UNHM#2*

Advisers: Robert Arredondo,

Takahide Ohkami

Eric Kennedy**Gavin Mulley****Corey Ouellette**

Mechanical Engineering Technology

*UNHM VEX U Robotics Competition**Team UNHM#5*

Advisers: Robert Arredondo,

Takahide Ohkami

All Colleges Undergraduate Research Symposium

Welcome Breakfast

Friday, April 25**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 25
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

Conflict and Cooperation in International Affairs

Moderator: Kaylie Efstratiou

Emeri Jacobs
 Political Science, Women's and Gender Studies
United States-Israeli Relations in the 21st Century
 Adviser: Jen Spindel

Grace Sullivan
 English, International Affairs
Deconstructing Genocide Ideology
 Adviser: Thomas Safford

Matthew Sullivan
 Political Science
Transition from Communism and the Effects on EU Accession for Former Yugoslavian States
 Adviser: Thomas Safford

Jaren Unzen
 Computer Science, International Affairs
The Impact of Natural Language Processing on Policymaking
 Adviser: Thomas Safford

Cori Wintle-Newell
 English/Journalism, International Affairs
Analyzing the Role of Social Media in the Spread of Far-Right Movements and Ideology in the UK
 Adviser: Thomas Safford

Memorial Union Building,
Room 340

Languages in/and the World, Panel I

Adviser and Moderator: Lori Hopkins

James Arida
 Psychology, Spanish
Tourism and Railways in Spain and Mexico

Leandra Bryant
 Biomedical Science, French
Healing or Hurting? A Comparison of Healthcare in France and the U.S.

Emily Forward
 Biology, French
The Role of French in Shaping Cultural Identity in the French-Speaking Region of Switzerland

Andrew Holmes
 French
Québec et les Canadiens du Montréal

Madeleine Kropp
 German, Music
The Role of Female American Codebreakers during World War II

Teagan O'Brien
 International Affairs, Spanish
La Preservación de las Culturas, Lenguas y Memorias con la Creación

Memorial Union Building,
Room 330

Multidisciplinary Session I

Moderator: Emily Liquin

Anna Anderson
 Justice Studies, Political Science
Comparing Taxpayer Standing in the States of NH and CA to That of the Standard in the Supreme Court
 Adviser: Susan Siggelakis

Jasper Billingsley
 Anthropology
Anthropology of Islam
 Adviser: Svetlana Peshkova

Julie Fredricksen
 Neuroscience and Behavior
Skyler Murphy
 Psychology
Do Young Children Explore or Exploit?
 Adviser: Emily Liquin

Sonia Russell
 Justice Studies, Psychology
Predicting Rule-Violating Behavior: The Effects of Selfishness, Impulsivity, and Risk Preference
 Adviser: Ellen Cohn

Devin Wilson
 Computer Science, Political Science
How Democrats Lost the Michigan Muslim Vote for the First Time Since 2000
 Adviser: Dante Scala

Memorial Union Building,
Room 332

Multidisciplinary Session II

Moderator: Kathyne Brewer

Amanda Ares
 Exercise Science
A Comparison of Pacing Strategies between Males and Females Running in Carbon-Fiber Plated Shoes
 Adviser: Summer Cook

Morgan Koskela
 Exercise Science
Gait Variables in Recreational Runners Wearing Carbon-Fiber Plated Shoes
 Adviser: Summer Cook

Jenna Loporcaro

Biochemistry, Molecular and Cellular Biology
Histone Deacetylase Inhibition Represses Lens Regeneration in Spanish Ribbed Newts
 Adviser: Konstantinos Sousounis

Alli Parr

Health Management and Policy
How Healthcare Workers View Climate Change and the Impacts on New Hampshire
 Adviser: Semra Aytur

Allie Petry

Exercise Science
Effect of Carbon-Fiber Plated Shoes on Running Performance and Muscular Strength in Recreational Runners
 Adviser: Summer Cook

**Memorial Union Building,
Room 334**
Multidisciplinary Session III

Moderator: Daphne Chevalier

Emily Abrusci

Ecogastronomy, Environmental Conservation and Sustainability
The Cost of Local: Exploring Food Affordability on the NH Seacoast
 Adviser: Daniel Winans

Jordan Edwards

Environmental Sciences
Narrating History: Reflections on Interning for the Seacoast NH LGBTQ+ Oral History Project
 Adviser: Holly Cashman

Delaney Hesler

Educational Studies
Universal Free School Lunch: Why Not New Hampshire?
 Adviser: Amy Trueworthy

Anna Maccaroni

Sociology, Sustainability
Public Opinion of the Dairy Industry in New Hampshire
 Adviser: Andrew Smith

Olivia Macneil

English, Women's and Gender Studies
Mapping History: Reflections on Interning for the Seacoast NH LGBTQ+ Oral History Project
 Adviser: Holly Cashman

**Memorial Union Building,
Room 336**
Myth and Memory: Research from the Department of Classics, Humanities, and Italian Studies

Moderator: Ann Zimo

Tyler Abrantes

Classics
The Goldilocks of Masculinity as Seen in the Works of Martial
 Adviser: Susan Curry

Alexis Efstratiou

Italian Studies, Theatre
Emily Hughes
 Music

Michael Maccini

Communication
Filming the History of Portsmouth, New Hampshire's Italian Community
 Adviser: Amy Boylan

Karter Hanley

Classics
Queerness and Monstrosity in the Minotaur
 Adviser: Elke Nash

Arianna Lavigne

Anthropology, Humanities
The Not So Immortal Gods: The Significance of Death and Mortality in Norse Myth
 Advisers: Paul Robertson, Ann Zimo

David Wilson

Classics
Homosexuality in the Middle Ages: Interpretations of Leviticus
 Adviser: Nicole Ruane

Jack Wirth

Classics, Linguistics
Towards a Digital Translation of Servius
 Adviser: R. Scott Smith

**Memorial Union Building,
Room 338**
Power, Gender, Practice, and Policy in the Workplace

Moderator: Alexa Bobinski

Neilie Alperin

Communication
Paid Parental Leave Policies in New Hampshire
 Adviser: Renee Heath

Jamie Corr

Communication
The Problem with Pumping: Legislation, Enforcement, and Workplace Discrimination among Breastfeeding Mothers
 Adviser: Renee Heath

Kate Daugherty-Miller

Communication, Sustainability
Social Corporate Responsibility and B Corps
 Adviser: Renee Heath

Anna Drabik

Communication
The Magazine Shaming of Britney Spears
 Adviser: Nora Draper

Caitlin Finneran

Communication
Power and Surveillance: Looking at Amazon
 Adviser: Renee Heath

All Colleges Undergraduate Research Symposium

Poster Presentations, Session A

Friday, April 25
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.

Charlotte Allaire

Biomedical Science, Neuroscience and Behavior

Ella Berg

Isabel De Lucia

Meera Parsons

Avery Scire

Psychology

Georgia Gempler

Emily Komerska

Alex LaBrake

Cassidy Remillard

Neuroscience and Behavior

Replication of the Effects of Contrast on Motion-Induced Blindness

Adviser: William Stine

Charlotte Allaire

Biomedical Science, Neuroscience and Behavior

Avery Scire

Psychology

Simple Mask Configuration Effects on MIB

Advisers: William Stine, Rafia Tisha

Charlotte Allaire

Biomedical Science, Neuroscience and Behavior

Ella Berg

Isabel De Lucia

Meera Parsons

Avery Scire

Psychology

Georgia Gempler

Emily Komerska

Cassidy Remillard

Neuroscience and Behavior

Spatial Frequency Effects on Stereo Activity

Advisers: Andrew Kitt, William Stine

Stephen Bentzlin

English/Journalism

Robbie Hanna

Sport Management and Leadership

Mckenna Murphy

Marketing

Evan Power

Communication, Sport Management and Leadership

Avery Richardson

Communication

Examining the Patterns of Abuse and Misconduct in Sport and Ways to Build an Organizational Culture for Ethical Sport Leadership

Advisers: Wonjun Choi, Sophia Min

Alexandra Billgert

Erin Daly

Samantha Emr

Tess Reid

Psychology

Individual Differences in the Affective Experience of Uncertainty

Adviser: Jolie Wormwood

Tamara Bouchard

Biochemistry, Molecular and Cellular Biology

Investigating the Mechanisms of Freeze Tolerance in Lemna

Adviser: Anna O'Brien

Dylan Bradsher-Behra

Sport Management and Leadership, Statistics

Aria Kleimola

Addy Young

Sport Management and Leadership

Increasing Brand Visibility through College Sports: A Case Study of SuckerPunch

Advisers: Wonjun Choi, Sophia Min

Tyler Browne

Justice Studies, Psychology

The Influence of Delinquent Peers: How Sub-Types of Peer Delinquency Predict Juvenile Rule-Violating Behaviors

Adviser: Ellen Cohn

Sadie Chaffin

Psychology

Race and Reasonable Person Bias in Legal Decision-Making

Adviser: April Bailey

Nicholas Cobb

Jacob Cuddire

Daniel Khachadourian

Will Ten Hope

Sport Management and Leadership

Examining Patterns of Corporate Social Responsibility Programs for Sustainability in U.S. Professional Sport Leagues

Advisers: Wonjun Choi, Sophia Min

Graham Collinworth

Genetics

Investigation into the Roles of Protein S-Acyl Transferases in Pollen and Roots of Arabidopsis

Adviser: Estelle Hrabak

Taylor Cota

Brynn Roberts

Nursing

Noise in the Acute Care Patient Setting

Adviser: Alyssa O'Brien

Allyson DeMoras

Justice Studies, Political Science

Generational Differences in Abortion Attitudes

Adviser: Dante Scala

Anthony Dempsey

Nutrition

Examining Nutrients of Concern, Weight-Related Drivers, and Eating Competence within Collegiate Male Athletes

Adviser: Jesse Stabile Morrell

Benjamin Doyle

Political Science

Voter Support for Federal Public Education Funding

Adviser: Dante Scala

Makram Elkhach

Biomedical Science

The Effect of GLI2 on AICDA Promoter Activity

Adviser: Sherine Elsawa

Harrison Filgate

Political Science

American Public Opinion on Unauthorized Immigrants

Adviser: Dante Scala

Riley Gillmer

Sustainable Agriculture and Food Systems

Harvesting Knowledge: The Benefits of Farm-to-School Education

Adviser: Elaine Marhefka

Nathan Goodwin

Exercise Science

Does Acute Circadian Misalignment Influence Heart Rate Variability and Central Blood Pressure among Young Adults?

Adviser: Michael Brian

Natalie Gray

Biomedical Science

The Association between Concussion History and Mental Health among Collegiate Athletes

Adviser: Trish Kelshaw

Bridget Green**Rose Wallace**

Health Sciences

Striding into Distraction: The Effects of Smartphone Use on Movement and Cognition

Adviser: Sanghee Moon

Sunny Harding

Community and Environmental Planning

Public Transportation Trends: Does Political Partisanship Influence Rider Participation?

Adviser: Dante Scala

Elizabeth Hartt

Anthropology

World's Fairs and Human Zoos: Anthropology's Racially Exploitative Past

Adviser: Amy Michael

Braelyn Hilsenbeck

Neuroscience and Behavior

Lyra Joson

Psychology, Linguistics

Rhythms of Cognition: Exploring the Nexus of Neural and Eye Movement Oscillations during Auditory Learning

Advisers: Kate Christison-Lagay, Casey Roark

Sofia Holmes

International Affairs, Sustainability

Determinants of Public Distrust towards Experts in the United States

Adviser: Dante Scala

Madison Houghton

Biomedical Science, Psychology

How Is Concussion History Associated with Sleep among Collegiate Athletes?

Adviser: Trish Kelshaw

Jillian Jezior

Classics, Environmental Sciences

Plant Nutrient Mobilization in Volcanic Terrains in Antiquity

Adviser: Julie Bryce

Kaitlyn Jollimore

Psychology

Movement as Mental Health Consumption: The Role of Commonality and Identity in Seeking Help

Adviser: Bruce Pfeiffer

Ahilya Sudarshan Kadba

Biology

Investigating the Effect of Epigenetic Therapies on the Tumor Microenvironment

Adviser: Sherine Elsawa

Margo Kamis

Ecogastronomy, Nutrition

Examining the Relationship between Skin Carotenoids and Bone Health in Young Adults

Adviser: Jesse Stabile Morrell

Ina King

Political Science

Voting Participation among College Students during Racial Movements

Adviser: Dante Scala

Oscar Kochansky

Justice Studies, Political Science

Impacts of Elitism on Voting Patterns

Adviser: Dante Scala

Maggie Krein

Environmental Sciences

Evaluating the Influence of Microplastics on Soil Microbial Community Composition through DNA Stable Isotope Probing

Adviser: Jessica Ernakovich

Michael Kunish

Undeclared

Fractals

Adviser: John Gibson

Jesus La Paz Sosa

Philosophy

Capitalist Realism: Can Artificial Intelligence Break the Spell? An Alternative to a Non-Alternative Paradigm

Adviser: Nicholas Smith

Elsa Le Blanc

Political Science

From Punishment to Rehabilitation: The Shift in U.S. Drug Policy and Its Impact on Users in New Hampshire

Adviser: Mary Fran Malone

Nia Lessard

Ecogastronomy, Nutrition

How Does Mineral Intake Relate to the Incidence of Metabolic Syndrome in Young Adults?

Adviser: Jesse Stabile Morrell

Olivia Lucia

Marine, Estuarine and Freshwater Biology

Examining Toxin Detection Methods in Harmful Algal Bloom Species via Fluorescence-Based ELISA Tests

Adviser: Elizabeth Harvey

Jackson Mazejka

Psychology

Anxiety and Depression Influencing Emotion Perception Abilities

Adviser: Jolie Wormwood

Charles McKeown

Community and Environmental Planning

Urban and Rural Differences in Public Opinion on Environmental Policy

Adviser: Dante Scala

Anna McNulty

Occupational Therapy

Interrater Reliability of the Children's Occupational Profile Questionnaire (COPQ)

Adviser: Shelley Mulligan

Emily Mezick

Homeland Security, Spanish
*Impact of U.S.-Mexico Border State
 Laws on Outcomes for Unaccompanied
 Alien Children*
 Adviser: Sara Iman

Elizabeth Miller

Justice Studies, Political Science
*Analyzing Adolescents: Growing Up in
 Close Proximity to Substance Use*
 Adviser: Kimberly Mitchell

Serena Mullin**Joshua Roebuck****Summer Simpkins**

Sport Management and Leadership

Rose Pavuk

Communication

*How to Build Sustainable Pathways for
 Racial and Ethnic Minority Coaches at
 the Professional Level*

Advisers: Gretchen Browne, Wonjun Choi

Leo Napoleon

Biochemistry, Molecular and

Cellular Biology

*FGF Signaling Is Necessary for Newt
 Lens Regeneration as Evidenced by Drug
 Inhibition of FGFR1-4*

Adviser: Konstantinos Sousounis

Tori Nordbeck

Nursing

*Healthcare Experiences of People Who
 Use Drugs (PWUD) and Subsequent
 Societal Impact*

Advisers: Kerry Nolte, Alyssa O'Brien

Sophia Putnam

Chinese, Communication Sciences
 and Disorders

*Compiling a Core Vocabulary List in
 Mandarin Chinese for AAC Use*

Adviser: Kay Chen

Lilah Read

Neuroscience and Behavior

*The Role of the Caudate Head in Implicit
 Language Learning: Validating the
 CARM+ Model of Automaticity in Patients
 with Post-Stroke Aphasia*

Adviser: Amy Ramage

Alyssa Russo

Occupational Therapy

*Representation in OT Mental Health
 Research: A Literature Review of
 Three Decades*

Adviser: Nikhil Tomar

John Shortis

Geography, Political Science

*What Is Fair Representation? An Analysis
 of Redistricting and Voting Power*

Adviser: Cristina Faiver-Serna

Jack Souza

Exercise Science

*Three Days of Acute Cold Exposure during
 Exercise Does Not Increase Exercise Energy
 Expenditure in Young Adults*

Adviser: Michael Brian

Luke Stam

International Affairs, Political Science

*Perception and Perspective: How
 Socioeconomic Background Shapes
 American Views of Other Countries*

Adviser: Dante Scala

Artemis Strangecrow

*American Public Perceptions of Russia and
 China as a Threat*

Adviser: Dante Scala

Brady Thaxton

Homeland Security, Political Science

*How Does Americans' Trust in the Media
 Relate to Americans' Trust in Politicians
 and Government Services?*

Adviser: Dante Scala

Sarah Tupper

Community and Environmental
 Planning, Sociology

*Indicators of Belief in COVID-19
 Misinformation: What Mitigates
 Expert Trust?*

Adviser: Dante Scala

Ria Varki

Biochemistry, Molecular and Cellular
 Biology

*Assessing the Histone Methyltransferase
 Activity of the SET Domain of AP2VIIa-7
 in Toxoplasma gondii*

Adviser: Vicki Jeffers

Anna Villineau

Political Science

*Analyzing the Demographics of
 Authoritarian Beliefs*

Adviser: Dante Scala

Brooklyn Wallace

Biomedical Science

*The Role of High Mobility Group A Proteins
 in Newt Lens Regeneration*

Adviser: Konstantinos Sousounis

Olivia Walsh

English Literature, Spanish

*Medieval Marriage: Sex, Gender Inequality,
 and "The Wife of Bath's Tale"*

Adviser: Samantha Seal

Riley Wilson

Genetics

*The Effect of RNA Interference on
 Phosphodiesterase Gene Expression and
 Phenotypes in the Nematode C. elegans*

Adviser: Rick Cote

Amanda Wittemann

Neuroscience and Behavior

*Stress, Mental Health, and Their Role in
 Reward-Based Decision Making*

Adviser: Jolie Wormwood

All Colleges Undergraduate Research Symposium

Oral Presentations, Session B

Friday, April 25
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 340**

Languages in/and the World, Panel II

Adviser and Moderator: Lori Hopkins

Rain Bugado

Biology, French

The Effect of Colonization on the Culture of the Former French North Africa

Arin Henderson

Spanish, Women's and Gender Studies
Masculinity in Hispanic and Greater Chinese Cultures

David Laing

Business Administration

Anglicization of the Arab World

Ana O'Neil

Health Management and Policy, Spanish
A Comparison of Maternal Health Practices

Makenzie Ryan

Business Administration, Humanities
Chinese Policy's Influence on the Creation and Adaptation of Danmei and Baihe

Greta Winkelman

German, Psychology

Trump: America's Hitler

**Memorial Union Building,
Room 302**

Linking Global and Local Change in International Affairs

Moderator: Jon Dickinson

Gillian Beaver

International Affairs, Political Science

Rethinking International Aid for Sustainable Development

Adviser: Thomas Safford

Sophie Gold

Political Science

Democratic Backsliding in South Africa

Adviser: Mary Fran Malone

Sarah Hull

Political Science

The Ties That Bind: Unpacking the Impacts of FGM on Somali Women's Romantic Relationships and Social Lives in the Diaspora

Adviser: Thomas Safford

Teagan O'Brien

International Affairs, Spanish

Indigenous Land Rights and Climate Change in Ecuador

Adviser: Thomas Safford

Berkley Reitz

Art: Art History, International Affairs

Investigating the Treatment and Perceptions of North Korean Child and Adolescent Refugees in South Korea

Adviser: Thomas Safford

MaryRose Wainaina

International Affairs, Political Science

The Need for Immigration Reform in South Korea: Addressing Demographic Challenges, Social Integration, and the Rights of Religious and Ethnic Minorities

Adviser: Thomas Safford

**Memorial Union Building,
Room 336**

Model UN in the Galapagos: Diplomacy and Sustainability

Adviser: Alynna Lyon

Moderator: Patrick Marcoux

Anna Barrows

Political Science

Conservation and Sustainability: The Giant Galapagos Tortoise

Anish Bhojwani

International Affairs

The United Nations and Sustainability Model UN Conference Overview

Diego Mazariegos

Justice Studies, Political Science

Model UN in the Galapagos: Diplomacy and Sustainability

Abigail Smart

International Affairs, Political Science

The Russian Federation at the UN

Emma Spivak

Justice Studies, Political Science

The Curious Relationship between Sea Lions, Humans, and Sustainability in San Cristobal

**Memorial Union Building,
Room 330**

Multidisciplinary Session IV

Moderator: Leigh Pratt

Emily Komerska

Neuroscience and Behavior

Luminance Contrast Sensitivity in Motion-Induced Blindness and Perceptual Filling-In

Adviser: William Stine

Tucker Lane

Psychology

Mapping the Triggers of Everyday Curiosity

Adviser: Emily Liquin

Lexa Malinak

Cognitive Science

Sentience: Where Do We Draw the Line?

Advisers: Kelly Peracchi, Omer Daglar Tanrikulu

Kay Sassan

Sociology, Women's and Gender Studies
Investigating the Experience of Sister Abuse through Online Forum Posts
 Adviser: Tanya Whitworth

**Memorial Union Building,
 Room 332**
Multidisciplinary Session V

Moderator: Sara Iman

Emily Carlson

Ecogastronomy, Political Science
The Hunger Crisis in America: Ways We Can Improve It for Others
 Adviser: Jess Gerrior

Bella Foltz-Smith

Justice Studies, Women's and Gender Studies
Period Poverty Behind Bars: Examining Access to Menstrual Products in the U.S. Justice System
 Adviser: Katherine Abbott

Chase Johnson

Anthropology
Digging Durham: Excavating the Grounds of the University of New Hampshire President's Residence
 Adviser: Meghan Howey

Megan Lemus

Anthropology, Political Science
Teaching about Islam Equitably in American Education Systems
 Adviser: Svetlana Peshkova

Elizabeth Miller

Justice Studies, Political Science
Student Media Use and Political Attitudes at UNH
 Adviser: Andrew Smith

All Colleges Undergraduate Research Symposium

Poster Presentations, Session B

**Friday, April 25
 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

Biomedical Science, Neuroscience and Behavior

Ella Berg

Isabel De Lucia

Meera Parsons

Avery Scire

Psychology

Georgia Gempler

Emily Komerska

Alex LaBrake**Cassidy Remillard**

Neuroscience and Behavior

The Influence of Eye Movement on Perception of Motion-Induced Blindness

Adviser: William Stine

Onyeka Ariguzo

Biomedical Science

Troubleshooting HDF on Scaffolds for Future Vascularization

Adviser: Linqing Li

Lindsey Arnold

Marlo Frank

Psychology

Jane Eidelman

Biomedical Science

Victoria Hajj

Animal Science

Morgan Pritchett

Psychology, Zoology

Investigating Stress in a Prosocial Helping Task

Adviser: Taylor Kimball-Sabatella

Emma Ayotte

Environmental Conservation and Sustainability

Rhetoric and Communication in Land Conservation through Website Analysis

Adviser: Molly Campbell

Kyra Batchelder

Anthropology

Pesticides' Implications on Forensic Cases

Adviser: Samantha McCrane

Caroline Boudreau

Educational Studies, Psychology

Effects of Social Emotional Learning on Elementary School Students

Adviser: Amy Trueworthy

Dylan Bradsher-Behra

Sport Management and Leadership, Statistics

Aria Kleimola**Addy Young**

Sport Management and Leadership
Increasing Brand Visibility through College Sports: A Case Study of SuckerPunch
 Advisers: Wonjun Choi, Sophia Min

Kelly Brown

Exercise Science

Implementation of Multi-Frequency Bioelectrical Impedance Analysis for the Early Detection of Metabolic Syndrome Severity in Young Adults

Adviser: Michael Brian

Caleb Burke

Homeland Security, Psychology

Henry Gilroy**Brendan Graham****Matthew Leone**

Sport Management and Leadership
*The Effect of Conference Realignment
 and Championship Restructuring on
 Fan Attendance and Revenue in NCAA
 Collegiate Athletics*

Advisers: Wonjun Choi, Sophia Min

Nicholas Castrucci

Biology

*The Human Brain's Reward System's
 Susceptibility to Substance-Related
 Addiction*

Adviser: Samantha McCrane

Trevor ChapmanBiochemistry, Molecular and
Cellular Biology

*The Role of Activation-Induced Cytidine
 Deaminase in Class Switching of
 Waldenström's Macroglobulinemia*

Adviser: Sherine Elsawa

Watson Chodat

Biology

*Cancer Drug Discovery Potential: Mapping
 Metabolites with Cytotoxic Activity of
 Streptomyces rapamycinicus Sampled from
 a U.S. Marine Sanctuary*

Advisers: Semra Aytur, John Bucci

Jordan Christian

Environmental Sciences

*Magma Assembly during Continental
 Rifting: Insights from the Limagne Graben
 and the Chaîne des Puys*

Adviser: Julie Bryce

Cam Conant

Mechanical Engineering

Devin Phyllides

Physics

Eben Quenneville

Engineering Physics

*3UCubed Flight Build, Instrument
 Calibration, and Data Processing*

Advisers: Noe Lugaz, Sanj Mehta

Gabe Corliss

Political Science

*The Role of Religion in American Attitudes
 towards Immigration*

Adviser: Dante Scala

Hannah Cuvellier

Biochemistry, Molecular and

Cellular Biology

*Gelatin-Methacrylated Hyaluronic Acid
 Microgels for Neural Tissue Generation
 In Vitro*

Adviser: Kyung Jae Jeong

Owen Daigle

Exercise Science

*Evaluation of Running Shoe Comfort and
 Performance in Recreational Runners*

Adviser: Summer Cook

Peter Daugherty-Miller

Political Science

*Looking at Public Opinion on Government
 Spending in the United States*

Adviser: Dante Scala

John Dennett

Exercise Science, Nutrition

*Circadian Misalignment Affects Metabolic
 Flexibility, Substrate Utilization, and
 Heart Rate during Submaximal Exercise*

Adviser: Michael Brian

Eli Durham

International Affairs, Political Science

*The Role of Education in Shaping
 Environmental Attitudes*

Adviser: Dante Scala

Tanner Faucher

History, Political Science

*Partisanship and Participation: The
 Political Activity Divide*

Adviser: Dante Scala

Kaylee Finch

Wildlife and Conservation Biology

Morgan Lane

Zoology

*Reducing Bird-Window Collisions at
 UNH: Progress, Patterns, and
 Prevention Strategies*

Adviser: Janet Anderson

Kevin Finn

Economics, Political Science

*An Examination of Donald Trump and
 Young Evangelical Voters*

Adviser: Dante Scala

Riley Francis**Quinton Martin**

Psychology

AI & Personality

Adviser: John D. Mayer

Gaby Garcia

Nursing

*Comparing AI-Driven Virtual Patients
 and Standardized Patients in Mental
 Health Nursing Education: A Simulation-
 Based Study*

Advisers: Samantha Arnold,

Alyssa O'Brien

Ava Gardner

Justice Studies, Sociology

*Trust in Times of Turmoil: America's
 Perception of Police Legitimacy during Crisis*

Adviser: Katherine Abbott

Emma Giunta

Political Science

The Impact of Gender on Abortion Stance

Adviser: Dante Scala

Anne Grace

Social Work

*Understanding Self-Stimulatory Behavior
 (Stimming) and Autism Spectrum Disorder
 (ASD) in Children and Adults as a Sensory
 Need: A Systematized Review*

Adviser: Kathryne Brewer

Rowan Grzeszkiewicz-O'Neill

Equine Studies

*Mane Pulling and Stress Response:
 Investigating the Welfare Impact of an
 Equine Husbandry Practice*

Adviser: Sarah Rigg

Ami Ha

Biomedical Science

*Characterizing a Potentially Novel
 Neisseriaceae Bacteria Causing
 Conjunctivitis in a Colony of Cynomolgus
 macaques (Macaca fascicularis)*

Adviser: David Needle

Alex Herrick

Linguistics, Spanish

*The Effect of the Soviet Union on Language,
 Culture, and Architecture in Cuba*

Adviser: Lucia Montas

Delaney Hesler

Educational Studies

The Impact of Down Syndrome on Development and Early Intervention

Adviser: Leslie Couse

Braelyn Hilsenbeck

Neuroscience and Behavior

Lyra Joson

Psychology, Linguistics

Rhythms of Cognition: Exploring the Nexus of Neural and Eye Movement Oscillations during Auditory Learning

Advisers: Kate Christison-Lagay,

Casey Roark

Trinity HuttHuman Development and Family Studies,
Sociology*The Relationship between Sense of Community and Academic Success*

Adviser: Sahitya Maiya

Nicki Hyslop

Animal Science

*Effects of Calcium Ionophore and**Thrombin on the Expression of an**Angiogenic Inducer in Chinese Hamster Ovarian Cells*

Adviser: Paul Tsang

Isabela Johnson

Homeland Security

Looking at Socio-Political Attitudes toward Climate Change

Adviser: Dante Scala

Kaitlyn Jollimore

Psychology

Movement Is Medicine

Adviser: Dawn Zitney

Elliana Jordan

Biomedical Science, Nutrition

Examining Dietary Intake of EMS Workers in Southern New Hampshire

Adviser: Noereem Mena

John Kelleher

Genetics

Gli3 Effect on Cytokine Expression in Monocyte Cancer Cells

Adviser: Sherine Elsawa

Owen Kelly

Political Science

Family Values and the Worldviews They Shape

Adviser: Dante Scala

Samantha Kimball

English/Journalism, Political Science

The Relationship between Americans' Education and Their Sentiments toward Immigration

Adviser: Dante Scala

Madison Lemire

Psychology

The Role of Adolescent Life Stressors in Rule-Violating Behaviors

Adviser: Ellen Cohn

Isabella Leone

English Teaching

*Impact of Race on Capital**Punishment Opinion*

Adviser: Dante Scala

Jenna Loporcaro

Biochemistry, Molecular and

Cellular Biology

*Histone Deacetylase Inhibition**Represses Lens Regeneration in Spanish Ribbed Newts*

Adviser: Konstantinos Sousounis

Megan MacNeil

Educational Studies, History

*Media Literacy Programs in New**Hampshire and Massachusetts Public**Schools This Century*

Adviser: Amy Trueworthy

Meg McGahern

Zoology

Population Structure and Abundance of Hochstetter's Frogs in the Hunua Ranges, New Zealand

Adviser: Marijke Struijk

Kay McGeehan

Linguistics, Spanish

*Using Eye-Tracking Technology to**Assess Success of Incidental Learning of**Mandarin Tonal Speech Categories in**Second-Language Learners*

Adviser: Casey Roark

Hanna Meier

Justice Studies

Child Trafficking and China's One-Child Policy

Adviser: Mary Fran Malone

Elliot Meine

Neuroscience and Behavior

Association of Mental Health on Sleep Outcomes among Collegiate Athletes

Adviser: Trish Kelshaw

Julia Melanson

Anthropology, Psychology

Riley Woolverton

Biology, Justice Studies

*A Study of Trauma Linked to**Contemporary Human Sacrifice Practices:**A Pilot Study Exploring Machine Learning**in Criminological Analysis*

Adviser: Samantha McCrane

Noah Mello

Genetics

*Investigation of Saltmarsh Sparrow**Feeding Behaviors Using DNA**Metabarcoding of Fecal Samples*

Advisers: Cassidy Dietz, Adrienne

Kovach, Will Rumfelt, Kris Wojtusik

Abigail Michaels

Classics, Psychology

*Do Domain-General (Person=Man) Biases**Intensify Already Biased Representations**in Male-Dominated Occupations?*

Adviser: April Bailey

Isabella Nazarian

Political Science

*Partisan Media and Political Polarization**in the 2020 Election*

Adviser: Dante Scala

Tori Nordbeck

Nursing

*Healthcare Experiences of People Who**Use Drugs (PWUD) and Subsequent**Societal Impact*

Advisers: Kerry Nolte, Alyssa O'Brien

Luke Nugent

Forestry

*Evaluating the Efficacy of Chemical**Treatments in Suppressing Understory**Hemlock Woolly Adelgid and Elongate**Hemlock Scale Populations: A Case Study**of College Woods*

Adviser: Michael Simmons

Juliet O'Brienhalla

Anthropology, Art: Art History
Exploring Variation in Grave Markers at the Historic North Cemetery, Portsmouth, NH
 Adviser: Alexander Garcia-Putnam

Travis Parke

Mechanical Engineering
Shock Absorbance of Different UNH Artificial Turf Fields and Implications for Student Athletes
 Adviser: Samantha McCrane

Harriet Pearce

Anthropology, Justice Studies
Gendered Term Usage in Forensic Science Publications
 Adviser: Samantha McCrane

Diyangi Perera

Justice Studies, Sociology
Household Firearm Access and Intimate Partner Violence: A Generational Cycle
 Adviser: Kimberly Mitchell

Alexandra Rassias

Communication Sciences and Disorders
Exploring Morphological Awareness: A Systematic Review of Its Application in Current Research
 Adviser: Laura Gonnerman

Frankie Schembri

Nutrition
Associations between Fiber Intake and Gut Microbiota Composition in New Hampshire Hispanic/Latino Adults at Risk for Food Insecurity
 Adviser: Maria Carlota Dao

Anna Steele

Economics, Political Science
Understanding American Attitudes toward Paid Maternity Leave
 Adviser: Dante Scala

Sarah Toomey

Nursing
From Pixels to Pines: Exploring the Impact of Authentic vs. Virtual Greenspace on Young Adults' Psychophysiological Well-Being
 Adviser: Gibran Mancus

Riley Wilson

Genetics
The Effect of RNA Interference on Phosphodiesterase Gene Expression and Phenotypes in the Nematode C. elegans
 Adviser: Rick Cote

All Colleges Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 25
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 336

Applying Anthropology: Investigations in Historical, Forensic, and Archaeological Cases

Moderator: Amy Michael

Maria Hagan

Anthropology, Classics
How the Commerce of Human Remains Dehumanizes the Dead
 Adviser: Amy Michael

Chase Johnson**Ainsley Rennie**

Anthropology
Ella Tartsa
 Anthropology, Justice Studies
Anatomization, Mummification, and Identity: Exploring the Depersonalization of a Medicalized Individual
 Adviser: Amy Michael

Connor Lincoln

Anthropology
A Case of Tertiary Syphilis from Cypress Grove Cemetery #1, New Orleans, Louisiana, and Its Implications in a Historic Context
 Adviser: Alexander Garcia-Putnam

Memorial Union Building,
Room 302

Economic Policy, Development, and International Affairs

Moderator: Susan Siggelakis

Shay Gillis

Political Science
To What Extent Do UNESCO's Cultural Initiatives Support and Encourage Political Cooperation?
 Adviser: Thomas Safford

Elsa Le Blanc

Political Science
From Dirigisme to Neoliberalism: Examining the Impact on Economic Policies through France's Pensions Reform
 Adviser: Susan Siggelakis

Patrick Moore

Economics, International Affairs
Sustainable Tourism and Community-Based Economic Development
 Adviser: Thomas Safford

Isabel Remick

Communication, International Affairs
The Resilience and Power of the London Docklands
 Adviser: Thomas Safford

Paige Rueffert

Anthropology, International Affairs
Who Owns the Past? The Decolonization and Repatriation of Artifacts from UK and EU Museums
 Adviser: Thomas Safford

**Memorial Union Building,
Room 340*****Languages in/and the World,
Panel III*****Adviser and Moderator: Lori Hopkins****Tom Carr**Economics, Spanish
*English vs. Spanish Idioms***Aiden Giarnese**Analytical Economics
*Difficulties in Translating Chinese Poetry***Claire Hobbs**History
ה.ב.ה.א.ב.ח.ל: Judeo-Arabic Love Poetry**Mather Kipka**Analytical Economics, German
*Theodor Adorno and the Frankfurt School:
Reconciling Pre- and Post-Holocaust
Language in Post-War (German) Society***Isabelle Neubauer**Linguistics
*Phonological Alterations across Chinese
Languages: A Comparative Analysis of
Mandarin, Min, and Wu Varieties***Memorial Union Building,
Room 330*****Multidisciplinary Session VI*****Moderator: Kate Gaudet****Faith Avitabile****Nev Sanford**
Political Science**Andrei Chirila**

International Affairs, Political Science

John ShortisGeography, Political Science
*Rebuilding Gaza: An Overview of
Clean Shelter*
Adviser: Jeannie Sowers**Clara Franzoni**Environmental Conservation and
Sustainability, International Affairs
*The Role of International Ramsar
Designations in Coastal Wetland
Conservation in Chile*
Adviser: Thomas Safford**Leo Napoleon**Biochemistry, Molecular and
Cellular Biology
*FGF Signaling Is Necessary for Newt
Lens Regeneration as Evidenced by Drug
Inhibition of FGFR1-4*
Adviser: Konstantinos Sousounis**Andrew Ricketts**Genetics, Sociology
*Phenotypic and Genotypic
Characterization of Warts and Hard Shell
in Cucurbita pepo*
Adviser: Chris Hernandez**Memorial Union Building,
Room 332*****Multidisciplinary Session VII*****Moderator: Liz Fowler****Elizabeth Christopher**Anthropology
*Brooches in Early Medieval Burials in
England*
Advisers: Megan Hanna Fry,
Samantha McCrane**Aidan Fleming**Homeland Security, Political Science
Indicators of Type III Workplace Violence
Adviser: John Borek**Georgia Gempler**Neuroscience and Behavior
*Interventions for Recidivism Reduction
in Violent Youth Offenders: A State and
National Level View of Juvenile
Justice Detention*
Advisers: Alex Johnson, Kate LaVigne**Berkley Reitz**Art: Art History, International Affairs
AI in Art History
Adviser: Ivo Van der Graaff**Memorial Union Building,
Room 338*****Top Papers in Communication*****Adviser and Moderator: Michael Jackson****Olivia Buzzell**Communication
*Public Health: The Ethical Potential
for Applied Neuromarketing***Layla Hanissian**Communication
*Sociopolitical Communication
through Fashion***Farrell Hoffman**Communication
*Rhetorical Criticism of "Promising
Young Woman"***Emma Naggar**Communication
*Child Labor Advocacy through the Years***Dina Rathke**Communication
*The Existence of Empathy in Photographs***Lauren Sutton**Communication
Roll the Film; Play the Music

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

Poster Session I

Friday, April 25
9–11 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 775: Bachelor of Science in Analytical Economics

Adviser: Aziz Saglam

Reece Apgar
Analytical Economics, Justice Studies
Sam Croteau
Aiden Giarnese
Logan Patrick
Analytical Economics
The New England Energy Market

Drew Bircher
Ryan Luis
Analytical Economics
Kyle Burditt
Analytical Economics, Environmental and Resource Economics
Stock Market Effect on Consumption

Sean Bradley
Charles Craig
Kyle Heidt
Analytical Economics
Analyzing Consumer Spending in the Live Entertainment Industry

Kara Cataldo
John Ecklund
Ria Talwar
Analytical Economics
The Economic Impact of Climate Change

MJ Condon
Analytical Economics
Victoria Drake
Analytical Economics, Political Science
Joseph Skehan
Analytical Economics, Philosophy
Gross National Happiness and the Economy

Jaelin Cummings
Taya Morgado
Ryan O'Malley
Analytical Economics
Rising Income Inequality in the U.S.

Drew Dickson
Brennan Dwyer
Nick Weatherbie
Analytical Economics
Spencer Quillen
Analytical Economics, Communication
Key Factors Affecting the Import Ratio

Aidan Dormady
Maximus Guth
Jamie Keep
Paul Sullivan
Analytical Economics
Factors That Impact the U.S. Housing Market

Mather Kipka
Analytical Economics, German
Merlim Llanes Cardenas
Sofia Menyalkin
Kyle Santangelo
Analytical Economics
Factors Affecting the Homeownership Rates

Jason Lee
Stephen Mague
Colby Walsh
Analytical Economics
Raising the Full Retirement Age for Social Security?

Organizational Insights Lab

Adviser: Jennifer Griffith

Tyson Ball
Nathan Spires
Nicholas Valcourt
Management
Evan Beals
Entrepreneurial Studies
Lucas Beder
Sport Management and Leadership
Carter Brown
Business Administration
Unpacking Amazon's Turnover

Samantha Carnevale
Business Administration
Delaney Carroll
Finance, Management
Emma Cheney
Analytics and Data Science
Teagan O'Brien
International Affairs, Spanish
Jordan Vashaw
Management
The Revolving Door: The Physical and Emotional Factors of Turnover

Gavin Coates
Analytics and Data Science
Sophie Derr
Christian Knightly
Tyler Paradis
Business Administration
Victoria Drake
Analytical Economics, Political Science
Contributing Factors to Employee Satisfaction at Outdoor Recreation Retailers

Carley Derubeis
Ian Dowgiert
David Farris
Madeline Proulx
Mia Ward
Management
Caleb Greene
Accounting
Strengthening Commitment: Analyzing Volunteer and Employee Retention at the American Red Cross

Nadia Goich
Caleb Johnson
Olivia Kennedy
Damon Smead
 Management
Jack Sheridan
 Economics
UNH Housing Crisis

Eleanor McNamara
 Business Administration
ADHD Accommodations in the Workplace

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

Poster Session II

Friday, April 25
11:30 a.m.–1:30 p.m.
Paul College

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

EcoGastronomy

Adviser: Daniel Winans

Emily Abrusci
 Ecogastronomy, Environmental
 Conservation and Sustainability
*The Cost of Local: Exploring Food
 Affordability on the NH Seacoast*

Matthew Corso
 Anthropology, Ecogastronomy
*From Orchard to Glass: The History of
 Fruit Wine in New England*

Alexa DerBoghiosian
 Ecogastronomy, Nutrition
*Roots of Resilience: Tackling Mental Health
 Challenges within Farming*

Avery Hathaway
 Biology, Ecogastronomy
*A Beginner's Guide to Biodynamic,
 Organic, and Sustainable Wines*

Sarah Jensen
 Ecogastronomy, Management
*Cracking the Code: How Misleading Labels
 Shape Consumers' Choices*

Katie Johnstone
 Ecogastronomy, Environmental
 Conservation and Sustainability
*Shear Growth: Using Wool and Hair as
 Nature's Fertilizer*

Christian Katumba
 Ecogastronomy, Economics
*Identity and History: The Journey of
 Liberian Cuisine*

Emma Lachapelle
 Ecogastronomy, Nutrition
*Exploring Student Involvement through
 Food Waste Trends in the National School
 Lunch Program*

Nia Lessard
 Ecogastronomy, Nutrition
*Contributing Factors of Malnutrition
 among Adolescents in Ethiopia*

Caeleigh Reger
 Ecogastronomy, Hotel and Hospitality
 Management
*Saving Grains: Transforming Brewer's Spent
 Grain into Sustainable Food Solutions*

Devon Smith
 Ecogastronomy, Entrepreneurial Studies
*Sweet Tooth Chronicles: Desserts with
 a Conscience!*

Multidisciplinary/Honors: Other

Kohl Abt
 Finance
*The Inflation Illusion: Are Government
 Measures Understating Price Growth?*
 Adviser: Michael Hanlon

Nathan Brennan
 Entrepreneurial Studies, Management
*Navigating Change: How External
 Pressures Shape Managerial Responses in
 New Hampshire's Small Businesses*
 Adviser: Peter Lane

Charles Brissette
 Analytics and Data Science
Chris Cotsifas
Zachary Lavoie
 Business Administration
Mckenna Murphy
 Marketing
*Analyzing Women's Soccer Game Day
 and Practice Metrics to Help Enhance the
 Performance of Individual Players and
 the Team*
 Adviser: Peter Zaimes

Sam Croteau
 Analytical Economics
*Semantics: How Young Leaders Can Create
 Change with Writing*
 Adviser: Nikhil Awasty

Tia DiMicelli
 Marketing
*You'll Be Back: Sensory Cognition's
 Influence on Audience Retention*
 Adviser: Bruce Pfeiffer

Peter Duriga
 Applied Mathematics, Business
 Administration
Rebecca Rainey
 Finance, Information Systems and
 Business Analytics
Will Theriault
 Finance
Andrew Turkington
 Analytical Economics, Geography
*Exploring BTC Proxy Companies:
 Valuation, Volatility, and Crypto Exposure*
 Adviser: David Reynolds

Brianna Frezza
 Business Administration, Finance,
 Management
*The Role of Personality in Behavioral
 Finance: Understanding How the Big 5
 Influences Bias and Financial Decision-
 Making*
 Adviser: Paul Harvey

Madison Harper
 Business Administration, Sustainability
*The Impact of Reproductive Healthcare
 Access on Mental Health and Risk Behaviors*
 Adviser: Bingjin Xue

Jackson LaSalle

Economics

An Investigation of Intellectual Property Law and Recent Innovations in Artificial Intelligence

Adviser: Marco Vincenzi

Molly Nichols*Analytical Economics, Sustainability Storms & Stories: Investigating Inequities in Tornado News Coverage*

Advisers: Kyle Bi, Robert Mohr

Colby Sherwin

Accounting, Finance

The Financialization of the American Dream: How Private Equity is Reshaping Single-Family Homeownership

Adviser: Richard Kilbride

James Webster*International Business and Economics Demographics, Deportations, and Debt: How the Trump Administration's Policies Worsen the National Debt in an Aging Nation*

Adviser: Michael Goldberg

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

Oral Session I

Friday, April 25
12:15–1:45 p.m.
Paul College

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

Marketing Workshop Presentations

Adviser: Peter Masucci

Nicole Acerra**Jack Babbage**
Samantha Matai
Nick Menounos**Julia Statham**Marketing
Sam TownsendFinance, Marketing
*White Birch Armory: Develop Marketing Programs and Materials to Aid This Dover, NH, Gun Store to Promote Its Educational Courses***Dylan Adams****Melanie Baidal****Brooke Naczas****Colby Roy****Tanner Wigmore**Marketing
*Kittery Historical & Naval Society: Design and Develop Marketing Programs Aimed at Increasing Visitors to the Museum, as Well as Growing Memberships and Donations***James Baiocchi****Jaymes Grady**
Benjamin Holmes
Taylor Lever
Allie McCall
Maya Rutina
Marketing*Addiction Recovery Coalition of NH: Research, Design, and Develop Marketing Programs for This NH-Based Non-Profit that Provides Services to People Dealing with Addictions of All Types***Kelsey Buckley****Dana Litzelman**
Dominic Mangone
Ashlyn SmithMarketing
Mia Castellano
Finance, Marketing**Ryan Stultz**Management, Marketing
*Bid Pirate: Research, Design, and Develop Marketing Programs Aimed at Increasing Awareness of This Online Start-Up Real Estate Auction Information Company***Natalie Campbell**

Entrepreneurial Studies, Marketing

Taylor Dumond**Nicolas Jacobs****Austin Swaim****Mikayla Vine**

Marketing

Laura HolmanskyMarketing, Theatre
*UNH Survey Center: Research and Identify Organizations and Institutions That Would Be Good Candidates to Sell the Services of This Renowned Center Based at UNH***Makayla Cennamo****Chloe Drusendahl****James Huffman****Jamie McDaniel****Maurgan McGrath**

Marketing

Hunter PelletierEntrepreneurial Studies, Marketing
*New England Healing Sports Association (NEHSA): Develop and Create Marketing Materials and Programs to Support and Expand the Reach of This Non-Profit That Provides Services to Disabled People through Sports***Gavin Cieplik****Clara Gomez Santa****Donald MacDonald****Mckenna Murphy**

Marketing

Caitlynn Lessard

French, Marketing

*The New Hampshire: Research and Design Marketing Programs and Materials to Increase Readership of the UNH Student-Run Campus Newspaper as It Transitions to an All-Digital Format***Nicolas Daly****Emma Simmons**

Finance, Marketing

Tom Sesler**Sydney Shaw**

Marketing

Hudson Levin*NH Manufacturing Extension Partnership: Research and Develop Marketing Programs to Broaden Awareness of and Participation with MEP by NH Manufacturing Companies*

Carson Dempsey
Gracy Mowers
Matthew Ruggiero
Jordyn Sherry
Amanda Stewart
Meghan Thorell
Madelyn Wallace

Marketing
Federal Emergency Management Agency (FEMA): Research, Design, and Develop Marketing Programs to Increase Awareness of and Education about Fire Safety through the FEMA Fire Is Everyone's Fight Campaign

Tia DiMicelli
Carlie Grinnell
Justin Leblanc
Maddy Mahoney
Michael Sullivan
Blake Winsmann

Finance, Marketing
Forward Merch: Develop Marketing Programs and Materials to Aid in Creating B2B Relationships and Sales for This Dover, NH, Provider of Promotional Materials for Large Entertainment or Corporate Events

Samantha Filipi
Cameron Lacroix
Siobhan McKee
Sabrina Mooney
Avery O'Hara
Connor Sweeney

Marketing
Rockingham Park Legacy Group: Research and Develop Marketing Campaigns Aimed at Increasing Awareness of the Park and Its Historical Significance to NH, and to Drive Donations to This Not-For-Profit Organization

Dia Fotos
Colin Garneau
Cassandra Nicholas
Joshua Shepard
Sofia Marston
Holly Reid

Management, Marketing
 Information Systems and Business Analytics, Marketing
Fantastic Fortune Cookies: Research Market Opportunities for B2B Sales of the Company's Unique Baked Goods, and Develop Marketing Programs to Increase Sales

Ethan Koroski
Lindsay Krois
Leah Munroe
Jaclyn Rubin
John Tower
enRoot: Research, Design, and Develop Marketing Tools and Programs to Broaden Awareness of and Increase Sales for This Somersworth, NH, Hand-Crafted Jewelry Artist

Thomas MacDougall
Maddie Pomeroy
Madison MacDowell
Abby McVeigh
Nicole Murphy
Ryder Morse
 Management, Marketing
 Information Systems and Business Analytics, Marketing
Stone Church Music Club: Research and Develop Marketing Materials and Programs Aimed at Increasing Awareness of and Ticket Sales to this Newmarket, NH, Entertainment and Restaurant Venue

Andrew Michaud
Taylor O'Connor
Bella Sambuaga
Paige Slattery
Andrew Soden
 Marketing
Teamwork Dental Temps: Research the Market for Temporary Placement of Dental Hygienists and Other Dental Office Staff, and Develop Marketing Programs to Raise Awareness of the NH Business

The Naked Arts— Creativity Exposed!

Act III

Friday, April 25
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.

Emilie Carroll
 Music
Tradition and Transformation: The Changing Role of Chestnuts in New England Contra Dance Music
 Adviser: Rose Pruiksmas

Lilly Cassely
 English
Venus Frigida
 Adviser: David Blair

Abby Tran
 English
Fading Flavors
 Adviser: David Blair

Cameron Whitney
 English
The Condensation
 Adviser: David Blair

Psychology Department George M. Haslerud Undergraduate Research Conference

**Friday, April 25
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.

Kayla Bauman

Psychology

Exploring the Impact of Excessive Internet Use on Perceived Dopamine and Creativity: Implications for Cognitive and Behavioral Development

Adviser: Kimberly Mitchell

Cole Bouchard-Liporto

Psychology

Mental Health Outcomes of Religious/Spiritual Integration in Psychotherapy

Adviser: Joan Glutting

Anastasia Bourassa

Psychology

Emotional Reminiscence Bumps: The Expected Distribution of Memories across the Lifespan

Adviser: Michelle Leichtman

Sadie Chaffin

Psychology

Motivations and Experiences of Gender-Based Harassment in STEM Majors

Advisers: Ellen Cohn, Ryan Gibson

Emily Hopkins

Psychology

Examining the Associations between Affective Forecasting and Mental Health Symptomatology

Adviser: Jolie Wormwood

Ava Maddox

Psychology

Intolerance of Uncertainty and Mental Health Symptomatology

Adviser: Jolie Wormwood

Alyanna Magsipoc

Psychology

Nigerian Mothers' and Fathers' Engagement with Children in a Book-Sharing Activity

Adviser: Pablo Chavajay

Madeline Meyers

Psychology

Interoceptive Awareness, Emotions, and Eating Behaviors in College Athletes

Adviser: Jolie Wormwood

Claire Ronan

Psychology

Measures of Resilience in Children Who Have Experienced Neglect

Adviser: Lisa Jones

Sofia Sylvestri

Psychology

Expectations of Biracial Social Preference and Perception

Adviser: Bolivar Reyes-Jaquez

Natalie Wagner

Psychology

Attention Management among American and Nigerian Mothers and Their First Graders during a Book-Sharing Activity

Adviser: Pablo Chavajay

Zachary Zunski

Philosophy, Psychology

Targeting Prelimbic Cortex (PRL) Projections to Anterior Dorsomedial Caudate Putamen (a-dmCPu) in Associative Learning with Nicotine Stimulus

Adviser: Sergios Charntikov

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

**Friday, April 25
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.

Amanda Ares

Exercise Science

A Comparison of Pacing Strategies between Males and Females Running in Carbon-Fiber Plated Shoes

Adviser: Summer Cook

John Dennett

Exercise Science, Nutrition

Circadian Misalignment Affects Metabolic Flexibility, Substrate Utilization, and Heart Rate during Submaximal Exercise

Adviser: Michael Brian

Krista Edwards

Communication Sciences and Disorders, Spanish

Katie Shine

Communication Sciences and Disorders

The Effect of Practice Schedules on Vocabulary Learning in Augmentative and Alternative Communication: A Functional Near-Infrared Spectroscopy Pilot Study

Adviser: Kay Chen

Gaby Garcia

Nursing

Comparing AI-Driven Virtual Patients and Standardized Patients in Mental Health Nursing Education: A Simulation-Based Study

Advisers: Samantha Arnold, Alyssa O'Brien

Nathan Goodwin

Exercise Science

Does Acute Circadian Misalignment Influence Heart Rate Variability and Central Blood Pressure among Young Adults?

Adviser: Michael Brian

Morgan Koskela

Exercise Science

Gait Variables in Recreational Runners Wearing Carbon-Fiber Plated Shoes

Adviser: Summer Cook

Amber Li

Nursing

Ethical Considerations in Intelligence-Assisted Home Monitoring Technologies for People Living with Cognitive Impairment: A Scoping Review

Adviser: Jing Wang

Caleb Marrero

Health Sciences

The Role of Sex and Sports in Mental Health Endorsements among Collegiate Athletes

Adviser: Trish Kelshaw

Allie Petry

Exercise Science

Effect of Carbon-Fiber Plated Shoes on Running Performance and Muscular Strength in Recreational Runners

Adviser: Summer Cook

Jack Souza

Exercise Science

Three Days of Acute Cold Exposure during Exercise Does Not Increase Exercise Energy Expenditure in Young Adults

Adviser: Michael Brian

Anthony Theos

Psychology

Safety within LGBTQ+ Relationships

Adviser: Tyler Jamison

Honors English Undergraduate Research Conference

Friday, April 25**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.

Emily Buehne

English, Philosophy

Bodies as Trash and Monsters as Failed Bringers of Justice: An Inquiry into Frankenstein in Baghdad

Adviser: Robin Hackett

Maeve Flusser

English

The Intersection between Poetry and Trauma

Adviser: Shelley Girdner

Nick Johnson

English

The Half-Mustache and the Tartan Cheongsam: Power, Gender, and Colonial Hybridity in Wong Kar-wai's 2046

Adviser: Delia Konzett

Kelsey Roberts

English, Women's and Gender Studies

Invisible Disability

Adviser: Sue Hertz

Philosophy Department Undergraduate Research Conference

Friday, April 25**3–6 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.

Mody Abdel-Salam

Analytical Economics, Philosophy

S.O.S. (Save Our Stoicism): How Stoicism is Distorted by Social Media

Adviser: Timm Triplett

Emily Buehne

English, Philosophy

Living, Breeding Carrion: Necrotic Femininity

Adviser: Paul McNamara

Travis Dean-Ploof

Philosophy

Manipulation of the Judiciary as a Mechanism for Totalitarianism

Adviser: Nicholas Smith

Zachary Dolfini

Applied Mathematics, Philosophy

Towards a Historical Critical Analysis of the Human Animal Divide

Adviser: Nicholas Smith

Jackson Hemphill

Justice Studies, Philosophy

Making Pride Palatable

Adviser: Laure Barillas

Jesus La Paz Sosa

Philosophy

Capitalist Realism: Can Artificial Intelligence Break the Spell? An Alternative to a Non-Alternative Paradigm

Adviser: Nicholas Smith

Claire LaPlante

Philosophy, Spanish
The Philosophy of Unamuno
 Adviser: Lucia Montas

Cormac Mallett

Philosophy
From Mathematics to Philosophy: Game Theory, the Science of What To Do Next
 Adviser: Paul McNamara

UNH Manchester URC Engineering Technology Robotics Competition

Saturday, April 26
8 a.m.–5 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 26
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.

Erica Faucher

Biomedical Science
Human Gut Microbiome Composition: A Comparison of Two Stool Sampling Methods
 Adviser: Maria Carlota Dao

Kaylee Finch

Wildlife and Conservation Biology
Morgan Lane
 Zoology
Reducing Bird-Window Collisions at UNH: Progress, Patterns, and Prevention Strategies
 Adviser: Janet Anderson

Rowan Grzeszkiewicz-O'Neill

Equine Studies
Mane Pulling and Stress Response: Investigating the Welfare Impact of an Equine Husbandry Practice
 Adviser: Sarah Rigg

Ahilya Sudarshan Kadba

Biology
Investigating the Effect of Epigenetic Therapies on the Tumor Microenvironment
 Adviser: Sherine Elsawa

Margo Kamis

Ecogastronomy, Nutrition
Examining the Relationship between Skin Carotenoids and Bone Health in Young Adults
 Adviser: Jesse Stabile Morrell

Jenna Loporcaro

Biochemistry, Molecular and Cellular Biology
Histone Deacetylase Inhibition Represses Lens Regeneration in Spanish Ribbed Newts
 Adviser: Konstantinos Sousounis

Averi Morse

Nutrition
Diet Quality and Mental Well-Being among Pregnant and Postpartum Individuals Living in NH
 Adviser: Noereem Mena

Leo Napoleon

Biochemistry, Molecular and Cellular Biology
FGF Signaling Is Necessary for Newt Lens Regeneration as Evidenced by Drug Inhibition of FGFR1-4
 Adviser: Konstantinos Sousounis

Frankie Schembri

Nutrition
Associations between Fiber Intake and Gut Microbiota Composition in New Hampshire Hispanic/Latino Adults at Risk for Food Insecurity
 Adviser: Maria Carlota Dao

Beau Underwood

Neuroscience and Behavior
Effects of Post-Stroke Aphasia on Resting-State Automatic Learning Networks
 Adviser: Amy Ramage

Katherine Veronneau

Biochemistry, Molecular and Cellular Biology
Investigation of Potential STAT3 Inhibitors in Breast and Ovarian Cancer Metastasis
 Adviser: Sarah Walker

Daniel Zogby

Zoology
Quantifying Temporal Effects on Common Tern Vocalizations
 Adviser: Laura Kloepper

COLSA Undergraduate Research Conference

Poster Presentations

Saturday, April 26
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.

Emily Abrusci

Ecogastronomy, Environmental Conservation and Sustainability
The Cost of Local: Exploring Food Affordability on the NH Seacoast
 Adviser: Daniel Winans

Michele Adams

Wildlife and Conservation Biology
RJ Koelmel
 Marine, Estuarine and Freshwater Biology
Toxic Relationships: Investigating Bioaccumulation of BMAA and Microcystins in NH Common Loons (Gavia immer)
 Adviser: Amanda McQuaid

Isabelle Angelo

Jacqueline Holmes
 Biomedical Science
Comparison of Mastitis Pathogens between Conventional and Organic Dairy Farms across New Hampshire and New York
 Adviser: David Needle

Lauren Barnes

Biochemistry, Molecular and Cellular Biology
Purification of EcoRI-RTX through Calcium Precipitation
 Adviser: Nate Oldenhuis

Robin Batchelor

Biomedical Science
Identification of Potentially Pathogenic Vibrio Species in New Hampshire's Coastal Ecosystems
 Adviser: Stephen Jones

Meredith Beers

Environmental Sciences
Cucurbit Speed Breeding with Increased Photoperiod and Supplemental R/B LED Lighting
 Adviser: Md Sazan Rahman

Madeline Benoit

Animal Science
Using the Plasma Dose Response Method to Determine the Bioavailability of Two Commercially Available Rumen-Protected Methionine Products
 Adviser: Nancy Whitehouse

Collin Blake

Biomedical Science
18S Metabarcoding Analysis of CIRD- Presenting Canine from 2021-2023
 Adviser: David Needle

Christopher Boujaoud

Biomedical Science
Emily Russell
 Applied Mathematics
Computational Analysis of EEG Waveforms of Mice in Ketamine-Induced Comas
 Advisers: Xuanmao Chen, Mark Lyon

Morgan Breen

Zoology
Vervet Monkey (Chlorocebus pygerythrus) Orphans Raised via Surrogacy and How Their Behaviors Differ from Those Born and Raised Biologically
 Adviser: Andrew Conroy

Aidan Brent

Biomedical Science
Identifying an Emerging Outbreak of Cyst-Forming Protist Amphibiothecum penneri in New England American Toad (Anaxyrus = Bufo americanus) Populations via Genetic Techniques
 Adviser: David Needle

Ryan Brown

Neuroscience and Behavior
Deep Sleep's Delta Rhythm Phase-Locked Biofeedback towards the Enhancement of Cerebrospinal Fluid Flux
 Adviser: MD Shaad Mahmud

Ryan Brown

Neuroscience and Behavior
Maximizing Mutual Information of Impedance Spectroscopy Data and Electrode Degradation
 Adviser: Jeffrey Halpern

Leandra Bryant

Biomedical Science, French
Hostless and Hungry: Investigating the Osmotrophic Capabilities of Free-Living Syndiniales Dinospores
 Adviser: Elizabeth Harvey

Rain Bugado

Biology, French
Long-Read Genome Sequencing to Uncover the Origin of a Great Bay Mystery Fish
 Adviser: Jeffrey Miller

Jackson Cabot

Biochemistry, Molecular and Cellular Biology
Investigating Aspartic Acid Carbon Dots for Cryopreservation Applications
 Adviser: Krisztina Varga

Eliana Cantwell

Biochemistry, Molecular and Cellular Biology

Samantha Drane

Biomedical Science
Sunflower Phytoremediation
 Adviser: Maegan Gagne

Nicholas Castrucci

Biology
The Human Brain's Reward System's Susceptibility to Substance-Related Addiction
 Adviser: Samantha McCrane

Trevor Chapman

Biochemistry, Molecular and Cellular Biology
The Role of Activation-Induced Cytidine Deaminase in Class Switching of Waldenström's Macroglobulinemia
 Adviser: Sherine Elswa

Liliana Chirichella

Biology

Owen Tucker

Marine, Estuarine and Freshwater Biology

*A Tale of Two Ponds: Historical**Cyanobacteria Trends in Juggernaut Pond**in Comparison to Norway Pond*

Adviser: Amanda McQuaid

Graham Collinsworth

Genetics

*Investigation into the Roles of Protein**S-Acyl Transferases in Pollen and Roots**of Arabidopsis*

Adviser: Estelle Hrabak

Hannah Cuvellier

Biochemistry, Molecular and

Cellular Biology

*Gelatin-Methacrylated Hyaluronic Acid**Microgels for Neural Tissue Generation**In Vitro*

Adviser: Kyung Jae Jeong

Seren Davies

Genetics

*Microbial Communities in Response to Salt**Marsh Restoration Efforts*

Adviser: Ashley Bulseco

Josephine DeMerit

Biology, Sustainability

*Crassostrea virginica Overwintering and**Awakening*

Adviser: Easton White

Abigail Dearth

Environmental Conservation and

Sustainability

*Investigating Student Engagement in**Statistical Programming in Biology*

Adviser: Melissa Aikens

Kailey Deighan

Animal Science

*The Effects of Heat Stress on the**Rumination in Lactating Primiparous and**Multiparous Cows*

Adviser: Clair Seely

Anthony Dempsey

Nutrition

*Examining Nutrients of Concern, Weight-**Related Drivers, and Eating Competence**within Collegiate Male Athletes*

Adviser: Jesse Stabile Morrell

Amy DiVito

Biochemistry, Molecular and

Cellular Biology

*Exploring the Effect of pH on DNA-**Intercalating Supramolecular Hydrogels*

Adviser: Nate Oldenhuis

Danielle Dos Santos

Biology

*Investigating the Microbiome of Wild and**Reintroduced New England Cottontail**Populations*

Advisers: Cassidy Dietz, Adrienne Kovach

Alexa Downs

Nutrition

Neha Sharma

Neuroscience and Behavior

*An Assessment of Infant Nutrition and**Activity Practices in Early Care and**Education Programs*

Adviser: Nooreem Mena

Jacob Dumais

Biochemistry, Molecular and

Cellular Biology

*The Impact of NMDA Receptor Blockade**on Hippocampal Memory Formation in**Fos-EGFP Transgenic Mice*

Adviser: Xuanmao Chen

Makram Elkhach

Biomedical Science

*The Effect of GLI2 on AICDA**Promoter Activity*

Adviser: Sherine Elswa

Sophia Elliott

Forestry

*Evaluating the Effectiveness and**Economic Viability of Coffee Disease**Management Strategies*

Adviser: Ranjit Bawa

Maggie Enoch

Geography, Sustainable Agriculture and

Food Systems

*Silvopastural Agro-Ecosystems in Plan**del Milagro, Limon, Ecuador*

Advisers: Heidi Asbjornsen, Juan-Pablo

Inamagua, Richard Smith

Joe Faherty

Biochemistry, Molecular and

Cellular Biology

*Aphanogmus Species (Hymenoptera:**Ceraphronidae) Associated with the**Soybean Gall Midge, Resseliella maxima**(Diptera: Cecidomyiidae)*

Adviser: Istvan Miko

Matthew Farbaniec

Genetics

*Ice Tolerance in Duckweed**Associated Microbes*

Adviser: Anna O'Brien

Erica Faucher

Biomedical Science

*Human Gut Microbiome Composition: A**Comparison of Two Stool Sampling Methods*

Adviser: Maria Carlota Dao

Kaylee Finch

Wildlife and Conservation Biology

Morgan Lane

Zoology

*Reducing Bird-Window Collisions at UNH:**Progress, Patterns, and**Prevention Strategies*

Adviser: Janet Anderson

Emma Foley**Bryce Stetson**

Marine, Estuarine and Freshwater Biology

*A Tale of Two Lakes: Plankton Dynamics**of Lake Kanasatka and Wakandah Pond*

Adviser: Amanda McQuaid

Abigail Forcier

Environmental Sciences, Sustainability

*How Is a Northern Forest Changing?**Lessons from Two Decades of Wood Growth*

Advisers: Jack Hastings, Scott Ollinger

Clara Franzoni

Environmental Conservation and

Sustainability, International Affairs

Alex Marshall

Marine, Estuarine and Freshwater Biology

Lila Wilkins

Marine, Estuarine and Freshwater

Biology, Sustainability

*Are Microplastics Ubiquitous in**Freshwater Wetlands? Examination of**Peat Deposits in a Remote Atlantic White**Cedar Bog*

Adviser: Gregg Moore

Georgia Gempler

Neuroscience and Behavior
Aerobic Exercise's Impact on Depressive Symptoms and Hippocampal Sub-Structures
 Adviser: William Stine

Shane Gleeson

Analytical Economics, Sustainability
Sophie Hodge
 Biomedical Science
Phytoremediation of Lead Contaminated Soil by Golden Bantam Corn
 Adviser: Maegan Gagne

Matt Gough

Zoology
*Differences in Vocalization Types in Male and Female Moose (*Alces alces*) and Connections to Sexual Selection in the Rut*
 Adviser: Laura Kloepper

Zachariah Gravel-Blaney

Genetics
*Phenotyping and Identifying a Male Sterile Gene in Two *Cucurbita* Species*
 Adviser: Chris Hernandez

Nevaeh Greenwood

Biomedical Science
Mycoplasma Infections Associated with a Respiratory Disease Outbreak in the United States from 2021 to 2023
 Adviser: David Needle

Caylin Grove

Genetics
*Genomic Sequencing of Eastern Oyster Larvae, *Crassostrea virginica**
 Adviser: Bonnie Brown

Rowan Grzeszkiewicz-O'Neill

Equine Studies
Mane Pulling and Stress Response: Investigating the Welfare Impact of an Equine Husbandry Practice
 Adviser: Sarah Rigg

Ami Ha

Biomedical Science
*Characterizing a Potentially Novel Neisseriaceae Bacteria Causing Conjunctivitis in a Colony of *Cynomolgus macaques* (*Macaca fascicularis*)*
 Adviser: David Needle

Kara Hatalsky

Sustainability, Zoology
Exploring Heritability of Nesting Traits in Female Saltmarsh Sparrows
 Adviser: Adrienne Kovach

Madeleine Hatfield

Marine, Estuarine and Freshwater Biology
*The Effects of Feeding Frequency and Its Impact on Zebrafish (*Danio rerio*) Larvae*
 Adviser: Karolina Kwasek

Disha Hegde

Genetics
*Gene Expression in the Brainstem of *Peromyscus eremicus*: A Comparative Analysis of Hydrated and Dehydrated States*
 Adviser: Matthew MacManes

Madison Henry

Biochemistry, Molecular and Cellular Biology
Targeting STAT3 in Triple Negative Breast Cancer
 Adviser: Sarah Walker

Ella Henzel-Cronin

Sustainable Agriculture and Food Systems
Effect of Incremental Levels of Synthetic Biochanin A on Production Performance and Nutrient Utilization in Dairy Cows
 Adviser: Andre Brito

Carrie Hill

Biology
Measuring the Effects of Microzooplankton Grazing on Marine Particle Properties
 Adviser: Elizabeth Harvey

Laura Hills

Biochemistry, Molecular and Cellular Biology
Temperature Manipulation of Small-Scale Growth Cultures for Increased pDNA Yield
 Adviser: Nate Oldenhuis

Braelyn Hilsenbeck

Neuroscience and Behavior

Lyra Joson

Psychology, Linguistics
Rhythms of Cognition: Exploring the Nexus of Neural and Eye Movement Oscillations during Auditory Learning
 Advisers: Kate Christison-Lagay, Casey Roark

Aaron Hoag

Sustainable Agriculture and Food Systems
The Effect of Simulated Drought on Leaf Functional Traits of Ecuadorian Páramo Grasses, Shrub, and Cushion Plants
 Advisers: Emily Anders, Heidi Asbjornsen, Matthew Vadeboncoeur

Nicki Hyslop

Animal Science
Effects of Calcium Ionophore and Thrombin on the Expression of an Angiogenic Inducer in Chinese Hamster Ovarian Cells
 Adviser: Paul Tsang

Alisa Ivantsova

Biomedical Science
Targeting Merkel Cell Carcinoma by Inhibiting PRMT5 to Promote R Loop Formation
 Adviser: Jingwei Cheng

Reka Ivanyi

Biology
Lineage-Specific Diversification of Vertebrate Antimicrobial Proteins
 Adviser: David Plachetzki

Amelia Jalbert

Biology, Spanish
Optimizing Spawning and Larval Rearing of Blue Mussels in the Laboratory
 Adviser: Brittany Jellison

Matthew Jasper

Biomedical Science
Is the Salience Brain Network Necessary for Implicit Learning?
 Adviser: Amy Ramage

Elliana Jordan

Biomedical Science, Nutrition
Examining Dietary Intake of EMS Workers in Southern New Hampshire
 Adviser: Nooreem Mena

Ahilya Sudarshan Kadba

Biology
Investigating the Effect of Epigenetic Therapies on the Tumor Microenvironment
 Adviser: Sherine Elsawa

Margo Kamis

Ecogastronomy, Nutrition

Examining the Relationship between Skin Carotenoids and Bone Health in Young Adults

Adviser: Jesse Stabile Morrell

John Kelleher

Genetics

Gli3 Effect on Cytokine Expression in Monocyte Cancer Cells

Adviser: Sherine Elsawa

Kaleigh Koester

Animal Science

Population Genetic Structure and Connectivity of Fishers in Northeastern United States

Advisers: Adrienne Kovach, Rem Moll, David Needle, Kris Wojtusik

Maggie Krein

Environmental Sciences

Climbing Upstream: The Migration Struggle of Diadromous Freshwater Fish in the Hunua Ranges of New Zealand

Adviser: Shelley Langton-Myers

Maggie Krein

Environmental Sciences

Evaluating the Influence of Microplastics on Soil Microbial Community Composition through DNA Stable Isotope Probing

Adviser: Jessica Ernakovich

Mphatso Langa

Wildlife and Conservation Biology

3D Atlas of Andrenid Bee Terminalia

Adviser: Istvan Miko

Lucas Laventure

Biochemistry, Molecular and Cellular Biology

Sonigashira Coupled Ligand for Improved Functionalization of Metal-Organic Framework Drug Delivery System

Adviser: Aylin Aykanat

Justin Lawless

Zoology

Manual and Automated Counting of Bats to Determine Their Response to Temperature Shifts

Adviser: Laura Kloepper

Robert LeMay

Biochemistry, Molecular and Cellular Biology

Effects of Hyperthermia on Growth in Lemna minor

Adviser: Anna O'Brien

Nia Lessard

Ecogastronomy, Nutrition

How Does Mineral Intake Relate to the Incidence of Metabolic Syndrome in Young Adults?

Adviser: Jesse Stabile Morrell

Charlotte Lewis

Biology

Potential Loss of Methionine from Rumen-Protected Methionine Supplements Exposed to Total Mixed Rations

Adviser: Nancy Whitehouse

Kailey Little

Marine, Estuarine and Freshwater Biology

Comparison of Fish Species Composition Infringing Mangrove Habitat Using Passive Acoustic Monitoring in Jobos Bay NERR, Puerto Rico

Advisers: Gregg Moore, Alexandria Sangermano

Sophia Lodico

Environmental Sciences

Characterizing Microbial Communities in Salt Marsh Sediments Experiencing Frequent Saltwater Washover Events

Adviser: Ashley Bulseco

Jenna Loporcaro

Biochemistry, Molecular and Cellular Biology

Histone Deacetylase Inhibition Represses Lens Regeneration in Spanish Ribbed Newts

Adviser: Konstantinos Sousounis

Olivia Lucia

Marine, Estuarine and Freshwater Biology

Examining Toxin Detection Methods in Harmful Algal Bloom Species via Fluorescence-Based ELISA Tests

Adviser: Elizabeth Harvey

Franny Lux

Marine, Estuarine and Freshwater Biology

Using eDNA to Assess Fish Diversity in the Coastal Gulf of Maine

Adviser: Nathan Furey

Aidan Lynch

Biochemistry, Molecular and Cellular Biology

Toxicity and Taxonomic Diversity of Picocyanobacteria in NH Lakes

Advisers: Amanda McQuaid, Jeffrey Miller

Allison Mackey

Biomedical Science

Identifying BCL6 Inhibitors in Ovarian Cancer

Adviser: Sarah Walker

MeiLing Maddox

Zoology

Ava Prieto

Neuroscience and Behavior

Exploring Students' Programming Ability Beliefs in a Data Science Course

Adviser: Melissa Aikens

Christopher Marden

Environmental Sciences

Species-Specific Drought Tolerance: Insights from Turgor Loss Point in a New Hampshire Ecosystem

Advisers: Jack Hastings, Scott Ollinger, Vandy; Sam Vandewater

Kaelin Marshall

Biochemistry, Molecular and Cellular Biology

Synthesis of Bio-Orthogonal Hydrogels via β -Thiolactone-Mediated Native Chemical Ligation

Adviser: Nate Oldenhuis

MacNeill Matthews

Genetics

Eukaryotic Community Composition Attached to Fecal Pellets from the Northeast Pacific

Adviser: Elizabeth Harvey

Eleora McCay

Wildlife and Conservation Biology

Comparing Wildlife Population Trends from Participatory Science Track Data versus State Agency Harvest Data

Adviser: Rem Moll

Meg McGahern

Zoology

Population Structure and Abundance of Hochstetter's Frogs in the Hunua Ranges, New Zealand

Adviser: Marijke Struijk

Kennedy McGrath**Lila Wilkins**

Marine, Estuarine and Freshwater Biology, Sustainability

Exploring the Effects of Handling Stress on Feed Intake and Growth in Juvenile Zebrafish (Danio rerio)

Adviser: Karolina Kwasek

Lynne McNamara

Environmental Sciences

VRAP Oyster River Data Analysis

Adviser: Wilfred Wollheim

Noah Mello

Genetics

Investigation of Saltmarsh Sparrow Feeding Behaviors Using DNA Metabarcoding of Fecal Samples

Advisers: Cassidy Dietz, Adrienne Kovach, Will Rumfelt, Kris Wojtusik

Ashley Miske

Animal Science

Using a Ninhydrin Assay to Determine Methionine Loss from Rumen-Protected Methionine Supplements Exposed to Total Mixed Rations

Adviser: Nancy Whitehouse

Matthew Moraller

Environmental Sciences

Nitrogen Uptake and Corn Growth: Insights from Fertilizer Treatments in Nebraska

Adviser: Serita Frey

Ethan Morgan

Genetics

Duckweed Microbiome Metagenomics

Adviser: Anna O'Brien

Caleb Morrill

Biochemistry

Matrix Degradation Promotes 3D ECM Protein Secretion and Organization

Adviser: Linqing Li

Averi Morse

Nutrition

Diet Quality and Mental Well-Being among Pregnant and Postpartum Individuals Living in NH

Adviser: Nooreem Mena

Julia Murray

Genetics

WHO's the Sire? A Genomic Investigation into the Origins of a Mystery Owllet Egg

Advisers: Lawrence Gordon, W. Kelley Thomas

Dhiraj Naidu

Biochemistry, Molecular and Cellular Biology

Analysis of Microbial Communities Driving Greenhouse Gas Fluxes in Arctic Peatlands

Adviser: Jessica Ernakovich

Leo Napoleon

Biochemistry, Molecular and Cellular Biology

FGF Signaling Is Necessary for Newt Lens Regeneration as Evidenced by Drug Inhibition of FGFR1-4

Adviser: Konstantinos Sousounis

Sarah Nicholls

Biochemistry, Molecular and Cellular Biology

Using RNA Sequencing to Examine Encephalic Gene Expression in Cactus Mice

Adviser: Matthew MacManes

Jacob Nipoti

Biomedical Science

The Impact of Wnt Signaling Perturbation in Newt Eye Lens Regeneration

Adviser: Konstantinos Sousounis

Mitchell NorrisMarine, Estuarine, & Freshwater Biology
Greenhouse Gas Production and Microbial Community Dynamics in Stream Water and Riparian Sediments in Response to Land Use Variation

Adviser: Ashley Bulseco

Luke Nugent

Forestry

Evaluating the Efficacy of Chemical Treatments in Suppressing Understory Hemlock Woolly Adelgid and Elongate Hemlock Scale Populations: A Case Study of College Woods

Adviser: Michael Simmons

Nhu Pham

Biology

Exploration of Phenotypic Differences in Different Nasonia Species (Hymenoptera: Chalcidoidea)

Adviser: Istvan Miko

DeAnna Pitcher

Biology

From Flying to Jumping: The Jumping Mechanism of Baeus Species (Hymenoptera: Platygastridae)

Adviser: Istvan Miko

Tim Ralich

Genetics

Drug-Induced Inhibition of Regeneration in Salamanders

Adviser: Konstantinos Sousounis

Adam RamsdenMarine, Estuarine and Freshwater Biology
Eastern Oyster Aquaculture and Research in Great Bay

Adviser: Linas Kenter

Sydney Reynolds

Wildlife and Conservation Biology

The Ovipositor System of Isostasius (Platygastridae: Platygastridae)

Adviser: Istvan Miko

Reilly Richardson

Biomedical Science

Generation of Mutations at a Hypoacetylated Site in Transcription Factor AP2X-7 in Toxoplasma gondii

Adviser: Vicki Jeffers

Aife RuaneMarine, Estuarine and Freshwater Biology
Sustainable Aquaponics in New England: Rainbow Trout (Oncorhynchus mykiss) and Yellow Perch (Perca flavescens) Effects on Plant Growth

Adviser: Bonnie Brown

Dylan Sager

Biology

Hydrogel Synthesis via Beta-Thiolactone-Mediated Native Chemical Ligation for Cell Encapsulation: Imaging-Based Assessment of Cell Viability and Spreading
Adviser: Nate Oldenhuis

Abigail Saucier

Biology, Sustainability

Backyard Chimeric Microbiomes: K-12 Participatory Science
Adviser: Anna O'Brien

Torin Scalora Riley

Permafrost Microbial Characterization along an Upland to Subsea Gradient from the Arctic Coastal Plain of Alaska
Adviser: Jessica Ernakovich

Frankie Schembri

Nutrition

Associations between Fiber Intake and Gut Microbiota Composition in New Hampshire Hispanic/Latino Adults at Risk for Food Insecurity
Adviser: Maria Carlota Dao

Daryna Serediuk

Biochemistry, Molecular and Cellular Biology

Identifying Molecular Features of Epichaperomes in Cancer and Cancer Stem Cells
Adviser: Feixia Chu

Shae Shandroff

Biology

*Examination and Identification of the Stomach Contents of Atlantic Cod (*Gadus morhua*) in the Gulf of Maine*
Adviser: Nathan Furey

Jessica Shapiro

Environmental Conservation and Sustainability

Aligning Farmers and Researchers: Perceptions in Management of Microbes and Soil Carbon and Nutrients for Agricultural Productivity and Sustainability
Adviser: Jessica Ernakovich

Alexzandria Sheppard

Biochemistry, Molecular and Cellular Biology

Investigating the Lyoprotective Properties of a Plant Antifreeze Protein
Adviser: Krisztina Varga

Madison Wing

Zoology

Sadie Smith

Clearing and Skeletal Staining of Small Vertebrates
Adviser: Jessica Bolker

Elijah St. Pierre

Marine, Estuarine and Freshwater Biology
Investigating Size-Specific Microzooplankton Grazing Pressure
Adviser: Elizabeth Harvey

Olivia Tatro

Biology

Examining the Extent of Inbreeding Depression in Captive New England Cottontail
Advisers: Cassidy Dietz, Adrienne Kovach

Zach Tzianabos

Biochemistry, Molecular and Cellular Biology

Structural Analysis of PDE6 Regulatory Domains
Adviser: Rick Cote

Beau Underwood

Neuroscience and Behavior

Effects of Post-Stroke Aphasia on Resting-State Automatic Learning Networks
Adviser: Amy Ramage

Ria Varki

Biochemistry, Molecular and Cellular Biology

Assessing the Histone Methyltransferase Activity of the SET Domain of AP2VIIa-7 in Toxoplasma gondii
Adviser: Vicki Jeffers

Alicia Veronneau

Biology

Characterizing the Lipid and Protein Concentrations in Phytoplankton
Adviser: Elizabeth Harvey

Katherine Veronneau

Biochemistry, Molecular and Cellular Biology

Investigation of Potential STAT3 Inhibitors in Breast and Ovarian Cancer Metastasis
Adviser: Sarah Walker

Alyson Von George

Environmental Sciences

The Effects of Land Use on Macroplastic Pollution in Streams
Adviser: Wilfred Wollheim

Brooklyn Wallace

Biomedical Science

The Role of High Mobility Group A Proteins in Newt Lens Regeneration
Adviser: Konstantinos Sousounis

Ryleigh Welsh

Animal Science

Investigations of College Student Perceptions and the Reality of Chicken Welfare
Adviser: Vanessa Grunkemeyer

Amanda White

Marine, Estuarine and Freshwater Biology
*Informing Farming Practices for Eastern Oysters (*Crassostrea virginica*) Using Integral Projection Modeling*
Adviser: Easton White

Norrie White

Marine, Estuarine and Freshwater Biology
Phenotypic Characterization of a New Strawberry Hybrid
Adviser: Thomas Davis

Madison Wilson

Marine, Estuarine and Freshwater Biology
Good Timin': Temporal Soundscape Patterns and Sound Identification in Portsmouth Harbor
Adviser: Brittany Jellison

Madison Wilson

Marine, Estuarine and Freshwater Biology
Mobile Real Time PCR for Citizen Cyanobacteria Safety Risk Assessment
Adviser: Amanda McQuaid

Riley Wilson

Genetics

*The Effect of RNA Interference on Phosphodiesterase Gene Expression and Phenotypes in the Nematode *C. elegans**
Adviser: Rick Cote

Hayden Wink

Neuroscience and Behavior

A Systematic Review of Motor Network Activity in Trained Dancers Watching Dance

Adviser: Amy Ramage

Kayla Young

Animal Science

Effect of Pulsed Electromagnetic Field Therapy on Milk Quality in Organic Dairy Cows

Adviser: Clair Seely

Mischa Yurista

Biology

Microbes in the Sea: Spatial Variation of Microbial Abundance along the U.S. East Coast

Adviser: Kai Ziervogel

Daniel Zogby

Zoology

Quantifying Temporal Effects on Common Tern Vocalizations

Adviser: Laura Kloepper

Peter T. Paul College of Business and Economics

First-Year Innovation and Research Experience (FIRE) URC

Poster Presentations & Oral Presentations

Saturday, April 26
9 a.m.–4 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: Decent Work and Economic Growth

Team: Air Shevis

Adviser: Shevis Hankins

Kristen Adams

Finance

Kyle Allgair

Michael Atwater

Catalina Blando

Sarah Campbell

Jackson Emrich

Patrick Keep

Riley McGovern

Josh McGuinness

Matthew O'Keefe

Siena Titus

Analytical Economics

Ally Larson

Thomas Sullivan

TJ Valentine

Undeclared

Molly Nichols

Analytical Economics, Sustainability

Team: Andrew's Amazing Team

Adviser: Andrew Lage

Ryleana Barney

Will Cucuzzella

Connor MacPherson

David Shycon

Ryan Sullivan

Eva Tonnessen

Undeclared

Jack Carosi

Nate Cavanaugh

Maxwell DeSaulnier

Alex Hanson

Mark Klimas

Kate Lynch

Gavin Malark

Hunter Roach

Theodore Wyman

Eva de Matteis

Business Administration

Team: Coleman's Followers

Adviser: Coleman Keady

Bobby Bourgault

Sofia Nardone

Colin Phillips

Braeden Rich

Undeclared

Mason Carrubba

Jack Curran

Ryan Donahoe

Andrew Ferreira

Quinn Henrey

Ella Holden

Alexa Kelliher

Casey Keyes

Paul Nees

Ian Peterson

Bryce Rochford

Stella Sebeny

Zach Silverio

Jake Simon

Dylan Soden

Ashley Surette

Business Administration

Team: The Benchwarmers

Adviser: Patrick Stevens

Calvin Brown
 Luke Dickinson
 Nick Robie
 Undeclared
 Noble Crawford
 Jack Derham
 Sophia Eckardt
 Zoe Grimard
 Brooks Hefty
 Sean McCool
 Tyler Merrill
 Molly Morel
 Elizabeth Noris
 Michael Rein
 Sadie Rogers
 Ella Roos
 Max Sherman
 Billy Smethurst
 Meaghan Tanski
 Chance Twomey
 Gregory Walsh
 Matthew Yang
 Business Administration

Team: 4 for 4

Adviser: Jennifer Foye

Jaden Cabiroy
 Elizabeth Cahn
 Amy DeLaria
 Jack Duncan
 Quinlan Gilbert
 Alan Guan
 Liana Kimball
 Trevor Marder
 Kelsey Marin
 Austin McHugh
 Brandon Murphy
 Dominic Ng
 Jared O'Donnell
 Jeremy Shone
 Brayden Trask
 Business Administration
 Erik Dupuis
 Camdyn Forget
 Sam Fox
 Aidan Galloway
 Laila Gustafson
 Sullivan Kenneally
 Undeclared

Grand Challenge: Life Below Water**Team: Apaullo 13**

Adviser: Alexa Rinehart

Avery Abrahamovich
 Thaeden Augsberger-Skala
 Undeclared
 Erick Angwenyi
 Will Atallah
 Mia Conti
 Payton Denning
 Cole Evans
 Ryan Fox
 Tristin Hallin
 Audrey Knott
 Emma Kraus
 Xander Murray
 Max O'Malley
 Zack Proulx
 Olivia Saccoccio
 Ivana Sebastian
 Landon Sprague
 Owen Stattenfield
 Sean Vincent
 Cameron Waldman
 Madison Walker
 Business Administration

Team: Meg's Minions

Adviser: Megan Smith

Ben Basoli
 Gavin Cronin
 Alex Lorber
 Max Peterson
 Anthony Terrile
 Undeclared
 John Carpenter
 Josie D'Andrea
 Katie Danaher
 Olianny Diaz
 Maya Freedman
 Libby Johnson
 Kaitlyn Johnson
 Grace Kelly
 Casey Krapalis
 Robby Marcotullio
 Isabel Mederos
 Business Administration

Team: 5 O'Clock Somewhere

Adviser: Avery Senosk

Mahdy Ayoub
 Brian Butler
 Jacob Deleon
 Logan Dumont
 Austin Grant
 Shae Hood
 Ally Marino
 Sophia Minetola
 Tori Montagna
 Gabriel Nicasio
 Alexander Sternerup
 Hannah Sullivan
 Olivia Watkins
 Ethan White
 Business Administration
 Dylan Cossette
 Ben Dillon
 Ryan LaPlant
 Ava McGrath
 Cole O'Reilly
 Andrew Reilly
 Undeclared

Team: Triple Threat

Adviser: Mia Castellano

Hayden Becker
 Amelia Corazon
 Billy Helliesen
 Dylan Hennessy
 Emerson Kelly
 Susannah Lavoie
 Sawyer Lefebvre
 Thomas Liddy
 Tyler Madeira
 Sarah Maltby
 Jackson Mastroianni
 James Ostrowski
 Autumn Patrick
 Harrison Peteros
 Logan Robinson
 Beckett Vanlenten
 Business Administration
 Ben Breen
 Casey Bridges
 Hailey Corriveau
 Andrew Mahoney
 Julia Marchant
 Undeclared

Team: Fireba11s

Adviser: Samuel Krosky

Nathan Berry
 Bella Blondin
 Liam Campbell
 Alicia Cunha
 Lucy Guarnaschelli
 Will Kellerman
 Aiden Lopes
 Jack McArthur
 Derek Muise
 Gavin Osgood
 Kayla Peters
 Brady Pike
 Eamon Smith
 Ethan Smook
 Nicholas Solomon
 Undeclared

Team: Fire's Finest

Adviser: Ella Kolber

Evan Bulman
 Austin Charest
 Liam Colburn
 Aiden Doke
 Lucas Endrizzi
 Hannah Fitzgerald
 Caitlin Fobert
 Sam Goulart
 Shelby Hager
 Ethan Krigman
 Joey Mangone
 Chase McBride
 Alina Pincoske
 Sean Quinlan
 Patrick Sheridan
 Business Administration
 Ellie Goodwin
 Cam McMann
 Andrew Timerman
 Fiona Winroth
 Undeclared

Grand Challenge: Reduced Inequalities**Team: Prestige Worldwide**

Adviser: Isabel Pavlik

Connor Anezis
 James Ferreira
 Kate Fitzpatrick
 Cooper Granger
 Mk Grimard
 Maeve Mercier
 Richard O'Neill
 Leanna Perez
 Avery Spiegel
 Business Administration
 Skylar Candon
 Declan Foley
 Kenny Fontaine
 Orly Hess
 Sean Higgins
 Jackson Jones
 Hayden Sauriol
 Undeclared

Team: Class of '28

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Grand Challenge: Sustainable Cities and Communities

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

Championship Round

**Tuesday, May 6
12–6 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 2025 URC happen.

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