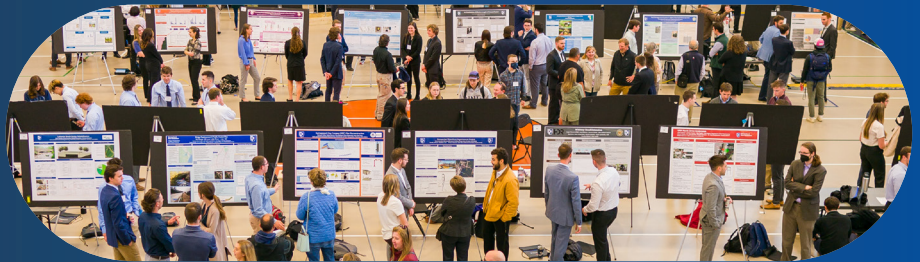


UNDERGRADUATE RESEARCH CONFERENCE | 2023



University of
New Hampshire

Welcome to the UNH Undergraduate Research Conference



JAMES W. DEAN JR.



WAYNE JONES

WELCOME TO THE 24TH ANNUAL CELEBRATION of research and discovery at the University of New Hampshire. The Undergraduate Research Conference is a highlight of the academic year and an exciting showcase of our students' remarkable ingenuity, talent, and accomplishments.

Launched as a university-wide effort in 2000, the URC exemplifies UNH's commitment to providing students with great research opportunities and building research partnerships with business and industry that improve the quality of life here in New Hampshire and around the world. This year, more than 1,500 students will present their research, scholarship, and creative works at events across our Durham and Manchester campuses, representing academic achievements in every college.

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

We encourage you to explore our students' engaging final projects and presentations, many of which represent years of hard work, inquiry, and experimentation. Whether you visit a poster session, an oral presentation, or a hands-on demonstration, we think you will be impressed by the students' knowledge and understanding. We're delighted to welcome you to the URC, and always appreciate your support for New Hampshire's flagship public research university.

Best regards,

A handwritten signature in black ink, appearing to read "James W. Dean Jr.".

JAMES W. DEAN JR.

PRESIDENT

A handwritten signature in black ink, appearing to read "Wayne Jones".

WAYNE JONES

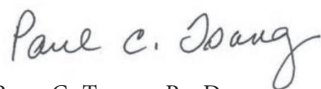
PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS

A Welcome from the Hamel Center for Undergraduate Research

WELCOME to the 24th 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 1,500 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 C. TSANG, PH.D.
Director, Hamel Center for Undergraduate Research
Professor of Molecular, Cellular, and Biomedical Sciences



MOLLY DOYLE, PH.D.
Administrative Director, Hamel Center for Undergraduate Research



AMANDA LEGER, M.A.
URC Coordinator, Hamel Center for Undergraduate Research

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URC 2023 Calendar

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

FRIDAY, APRIL 14

1–4 p.m. and 4–7 p.m.

**Paul College of Business and Economics
Paul J. Holloway Prize Innovation
to Market Competition, Bud Albin
Challenge Round**
Paul College (5)

8–10 p.m.

Student Composers' Concert
*Paul Creative Arts Center,
Bratton Recital Hall (6)*

WEDNESDAY, APRIL 19

8 a.m.–5:30 p.m.

**Interdisciplinary Science and
Engineering (ISE) Symposium**
Whittemore Center Arena (8)

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, Museum of Art (6)

4–6 p.m.

**UNH Manchester URC,
Poster Presentations**
*88 Commercial Street, MPR Room 201
and Student Commons, Manchester*

THURSDAY, APRIL 20

9 a.m.–12 p.m.

**UNH Manchester URC,
Cinema Arts Day**
*88 Commercial Street, Screening Room
456, Manchester*

12–3 p.m.

History Department URC
*Memorial Union Building, Rooms 330,
332, and 334 (3)*

12:40–2 p.m.

**The Naked Arts – Creativity Exposed!
(Act II)**
Paul Creative Arts Center, Museum of Art (6)

FRIDAY, APRIL 21

9–9:30 a.m.

**All Colleges Undergraduate Research
Symposium Welcome Breakfast**
*Memorial Union Building, Granite
State Room (3)*

9:30 a.m.–1:25 p.m.

**All Colleges Undergraduate Research
Symposium**
*Memorial Union Building, Granite
State Room and various rooms (3)*

9 a.m.–2:30 p.m.

Paul College URC
Paul College (5)

9 a.m.–12 p.m.

**UNH Manchester URC,
Engineering Technology Day
Senior Project Presentations**
*88 Commercial Street, MPR Room 201,
Manchester*

12–5 p.m.

**Languages, Literatures, & Cultures
(LLC) Department URC**
Murkland Hall, Room G17 (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 (7)

2–3:30 p.m.

Honors English URC
Hamilton Smith Hall, Room 205 (1)

2–8 p.m.

Philosophy Department URC
Hamilton Smith Hall, Room 210 (1)

6–8 p.m.

**Senior B.A. & B.F.A. Exhibition
and Preview Reception**
*The exhibition will remain open until
May 13.
Paul Creative Arts Center,
Museum of Art (6)*

SATURDAY, APRIL 22

8 a.m.–3 p.m.

**Paul College First-Year Innovation and
Research Experience (FIRE) URC**
Paul College (5)

8:15 a.m.–12 p.m.

**College of Life Sciences and
Agriculture (COLSA) URC**
*Memorial Union Building, Granite State
Room and MUB Theatre II (3)*

WEDNESDAY, MAY 3

2–5 p.m.

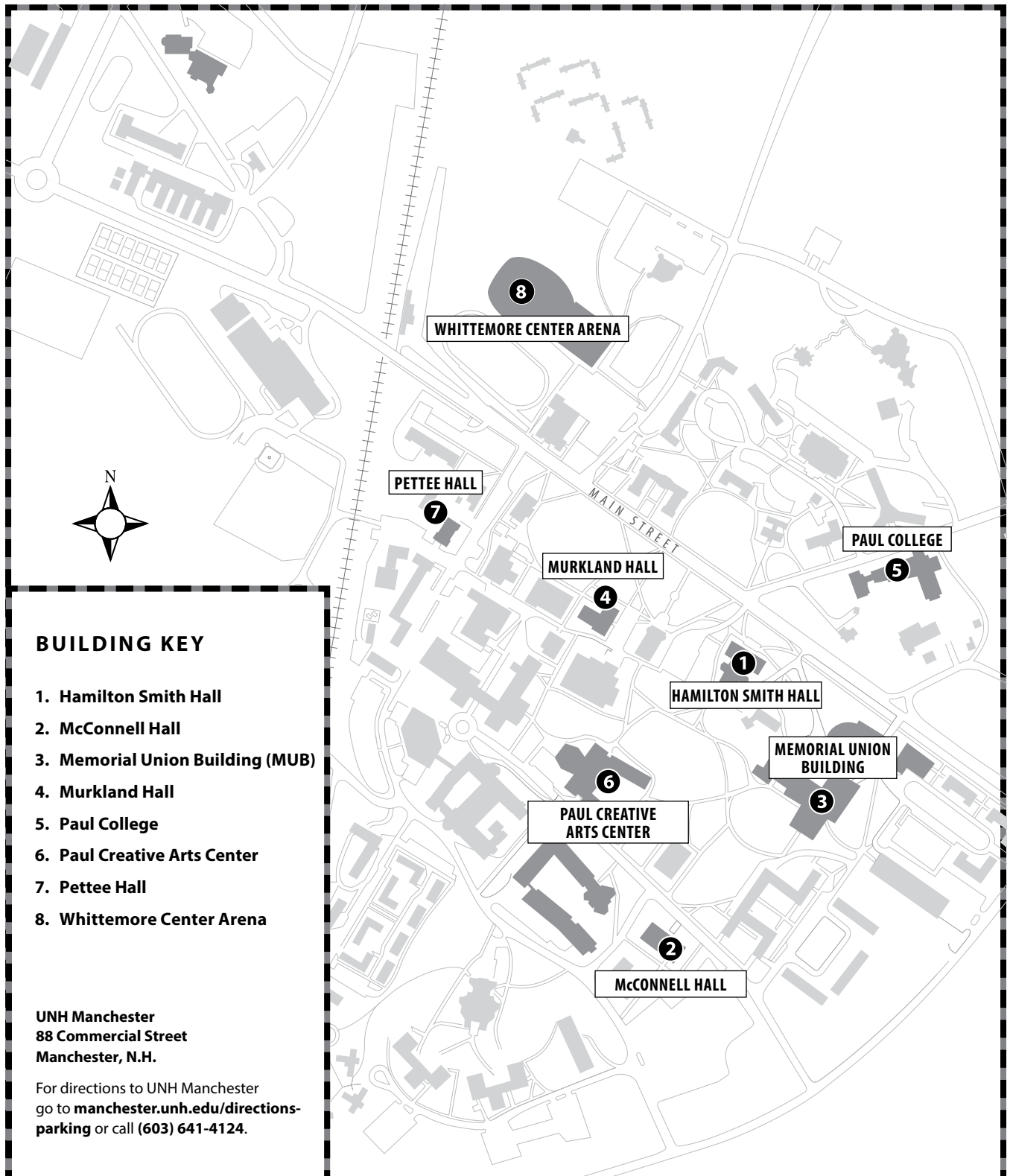
**Ann Manchester Kelley Nursing
Inquiry Day**
*Memorial Union Building,
Strafford Room (3)*

WEDNESDAY, MAY 10

1–5 p.m.

**Paul College of Business and Economics
Paul J. Holloway Prize Innovation
to Market Competition,
Championship Round**
Paul College (5)

URC 2023 Campus Map



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

Bud Albin Challenge Round

Friday, April 14
1-4 p.m. and 4-7 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.

Student Composers' Concert

Friday, April 14
8–10 p.m.
Paul Creative Arts Center,
Bratton Recital Hall

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

Wesley Coffin
Music
Scherzo for 113
Adviser: Andrew Boysen

Wesley Coffin
Music
The Devil on Your Shoulder
Adviser: Andrew Boysen

Kyle Cook
Music
Fractures
Adviser: Michael Shun

Kyle Cook
Music
Tonnetz CycleLR
Adviser: Michael Shun

Michael Crowley
Music Education
El Chupacabra
Adviser: Michael Shun

Emme Johnson
Art: Studio Art, Music
The Sleeping Legend
Adviser: Michael Shun

Seth Rupp
Music
Composition for Solo Bass Clarinet
Adviser: Michael Shun

Amanda White
Music
A Song, Perhaps with Other Performers
Adviser: Michael Shun

Interdisciplinary Science & Engineering (ISE) Symposium

Poster Presentations

Wednesday, April 19
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

Kelsey Alimandi
Biology
Hannah Manning
Biomedical Science
Individual Behavioral and Neurobiological Markers Associated with Vulnerable to Alcohol Use Phenotype
Adviser: Sergios Charntikov

Joshua Berthiaume
Biomedical Science
Bromodomain Proteins Are Important Epigenetic Regulators in the Parasite Toxoplasma gondii
Adviser: Vicki Jeffers

Jaxson Libby
Biochemistry, Molecular and Cellular Biology
Investigation of Mechanical Regulation on STAT3 Activity
Advisers: Linqing Li, Sarah Walker

Emily Pratt
Biochemistry, Molecular and Cellular Biology
Targeting STAT3 in TNBC Using GSK3 β and Integrin Inhibitors
Adviser: Sarah Walker

Chemical Engineering

Group Leader: Nan Yi

Katherine Austin

Bioengineering

Low-Cost Gold-Leaf Sensing Platform for Detection of Infectious Diseases

Adviser: Jeffrey Halpern

Jackie Desrosiers

Chemical Engineering

Novel 3D Printing Process for Improved Mechanical Properties of Tissue Engineering Scaffolds

Adviser: Kyung Jae Jeong

Matt Libby

Chemical Engineering

Lithium Purification Using Bioinspired Redox-Active PyroGallol

Adviser: Young Jo Kim

Samuel Mercer

Chemical Engineering

Contrasting Methanol Dehydration Analogs across Bronsted-Acid Catalysts

Advisers: David Hibbitts, Hansel Montalvo-Castro

Matthew Noyer

Chemical Engineering

Direct Carbon Dioxide Conversion to Methane over Nickel-Based Catalysts

Adviser: Nan Yi

Chemistry

Group Leader: Stacey Hughes

Somkene Alakwe

Biochemistry, Molecular and Cellular Biology

Bioreactor-Based Production and Purification of pDNA and Protein for Materials Science Applications

Adviser: Nate Oldenhuis

Samuel Ashooh

Biochemistry, Molecular and Cellular Biology

Cysteine- β -thiolactone for Facile Polymerization of Hydrogel Crosslinkers and Polycysteine Tags

Adviser: Nate Oldenhuis

Alex Cheung

Chemistry

Demonstrating Paper Spray Ionization for a High School Teaching Environment

Adviser: Anyin Li

Matt Cummins

Chemistry

Methodizing Chiral HPLC to Resolve Diastereomeric Racemic Mixtures of Metal Sequestering Peptide Chelators

Adviser: Roy Planalp

Owen Durant

Chemistry

Novel Plasmid DNA Macrocyclic Bottlebrush Polymers

Adviser: Nate Oldenhuis

Kelsey MacCallum

Biochemistry, Molecular and Cellular Biology

Development of 3D Cell Cultures through Noncytotoxic Native Chemical Ligation

Adviser: Nate Oldenhuis

Lydia Milam

Chemistry

Oxidative Studies for the Degradation of Organic Dyes

Adviser: Roy Planalp

Adase Ntumi

Chemistry

Pyridine Functionalized Carbon Dots for Photocatalysis with Cobaloxamine

Adviser: Christine Caputo

Sydney Sigua

Chemistry

Synthesis and Chemistry of Novel Aromatic Hydrocarbons

Adviser: Richard Johnson

Civil and Environmental Engineering — Design

Group Leaders: Eshan Dave, Philippe Kalmogo, Anthony Puntin

Anthony Accardi

Joseph Clark

Zachary Goin

Sean Goodman

Jameson Miller

Civil Engineering

Jaffrey, NH, Multipurpose Rail Trail Bridge Replacement

Advisers: Yashar Eftekhari Azam, Steve Reichert, Ryan Trudeau

Mark Adler

Owais Khalid

Nicholas Mason

Civil Engineering

Justin Coralli

Lauren McNaughton

Environmental Engineering

Former Little Jack's Restaurant Redevelopment

Advisers: Kenneth Flesher, Philippe Kalmogo

Heidi Booher

Sebastian Jones

Miranda Pierre

Nathaniel Trueworthy

Civil Engineering

Chebeague Island Stone Warf

Adviser: Fei Han

Anthony Cogliano

Ben Hodsdon

Zach Scarpola

Christopher Trovato

Civil Engineering

Nolan McGovern

Environmental Engineering

Concord Mixed-Use Development

Adviser: Anthony Puntin

Matthew Cusano

Wyatt Garrett

Ryan McLaughlin

Bhargavi Nimoji

Civil Engineering

Anna Gombas

Civil Engineering, German Haverhill Downtown

Redevelopment Project

Adviser: Anthony Puntin

Jeremy Harvey
Andrew LeBlanc
Ryan May
Ethan Payne
Angus Reid
Nicholas Wong
 Civil Engineering
Fryeburg Hangar Project
 Advisers: Matthew Low, Sydney Seney

Seth Reed
Douglas Reitmeyer
Moise Reveil
Cameron Sweet
Charles Wetherbee
 Civil Engineering
Bridge Replacement — Mason Road over Great Brook — Milford, NH
 Adviser: Raymond Cook

Civil and Environmental Engineering — Investigation

Group Leaders: Eshan Dave, Philippe Kalmogo, Anthony Puntin

Meghan Abbey
 Environmental Engineering
Daniel Bartus
Jacqueline Borruso
Joshua Brown
Paige Hornbeck
Cormac MacPhail
Lauren Robbins
Eddie Schluter
Dustin Wells
 Civil Engineering
Douglas Coulter
 Mechanical Engineering
ASCE Concrete Canoe
 Adviser: Eshan Dave

Meghan Abbey
Michael Mercer
 Environmental Engineering
Jake Morrier
George Smith
Tim Spencer
 Civil Engineering
Transportation Planning U.S. Route 302 at Intervale Cross Road
 Adviser: Jo Sias

Evan Bollman
Andrew Fleming
 Environmental Engineering
Justin Gagne
 Civil Engineering
Alyssa Karlson
 Environmental Conservation and Sustainability, Environmental Engineering
ChildVoice Lukome Center Wastewater Redesign
 Adviser: M. Robin Collins

Margaret Danehy
Jeremy Larkin
Nicholas Querrazzi
 Environmental Engineering
Patrick Gunter
Evan Proulx
 Civil Engineering
Twin State Railroad Rails-to-Trails Project
 Adviser: Anthony Puntin

Joshua Dow
Sunjay Sood
 Environmental Engineering
Jacob Stephens
 Civil Engineering
Nashawannuck Brook Restoration
 Adviser: Julie Paprocki

Civil and Environmental Engineering — Research

Group Leaders: Eshan Dave, Philippe Kalmogo, Anthony Puntin

Kush Basnet
Kaylee Molan
Nora Sinno
Ivy Trudeau
 Environmental Engineering
Izzy Medeiros
 Civil Engineering
Design of Drinking Water Treatment Facility for Manchester — Merrimack River
 Adviser: James Malley

Michael Bidonde
Briar Brogna
Max Fortin
 Environmental Engineering
Nathan Salas
 Environmental Engineering, Sustainability
Dover, NH — Citywide PFAS Sampling Program
 Adviser: Paula Mouser

Alexis Eaton
 Environmental Engineering, Sustainability
The Influence of Dissolved Oxygen on the Degradation and Transformation of NEtFOSE within a Secondary Wastewater Treatment Bioreactor System
 Adviser: Paula Mouser

Sunjay Sood
 Environmental Engineering
Natural Shoreline Armor Characteristics in the Great Bay
 Adviser: Thomas Ballestero

James Wood
 Environmental Engineering
Prediction of Movement of Spilled Oil under Ice
 Adviser: Nancy Kinner

Computer Science — Data Science

Group Leaders: David Benedetto, Matthew Plumlee, Craig Smith

Christopher Acampora
Lucas Guerrette
Sanen Imchen
 Computer Science
Julia Hilinski
 Analytics and Data Science
Raw Dough, Raw Data: Optimizing Wholesale Distribution for When Pigs Fly Bakery
 Adviser: Matthew Plumlee

Lingyun Chen
 Computer Science
Anushreeya Gurung
 Analytics and Data Science
Benicio Liu
 Information Technology
NextStep Data Analysis Team
 Adviser: David Benedetto

Bobby DeVito
Eric Klein
Forrest Mitchell
 Computer Science
Roads of the Sea
 Advisers: Christos Kastrisios, Craig Smith

Nia Eaton

Computer Science

Jason Staples

Analytics and Data Science, Sustainability

Brock Therrien

Information Technology

Transforming Energy Optimization

Adviser: Craig Smith

Zach Girouard**Christopher Hattub**

Computer Science

Hunter Sansoucie

Analytics and Data Science

Ben Stone

Information Technology

Gas and Oil Usage and Predictions

Adviser: Craig Smith

Computer Science — Applications**Group Leaders: David Benedetto, Matthew Plumlee, Craig Smith****Cameron Allen**

Lali Ntwali

Zichao Yi

Information Technology

Charles Stumpf

Computer Science, Information Technology

USS Albacore VR Experience

Adviser: Matthew Plumlee

Ramya Amin**Minh-Thi Detzel**

Alexander Mitchell

Information Technology

Galvion Software Release Management

Adviser: David Benedetto

Nathan Blake

Computer Science

Gopal Timsina**Kambal Vaidya**

Information Technology

NextStep Health Feature Development

Adviser: David Benedetto

Taylor Colby**Joe Marcinuk****Cameron Oeze**

Computer Science

Alon Varshaver

Information Technology

EMR Skills Development

Adviser: Matthew Plumlee

Mitchell Cormier**Jason MacMillan****Beau Ramsey**

Information Technology

Jimmy Fitzgibbons

Computer Science

Interactive Scientific Visualization in .HTML

Adviser: Matthew Plumlee

Matthew Cusack**Joshua Knauer****Luke Knedeisen**

Information Technology

Pirail

Adviser: David Benedetto

James Msaddi**Orianne Sinclair****Kathleen Terwilliger**

Information Technology

Hunter Remick

Computer Science

Nearview: Aerial Drone Mapping for Environmental Services

Advisers: David Benedetto,

Stefan Claesson

Computer Science — Systems**Group Leaders: David Benedetto, Matthew Plumlee, Craig Smith****Luke Allison****Ryan Skelly****Michael Stack**

Information Technology

Connor LaRocque

Information Technology, International Business and Economics

*Orion Computer Science Department**Virtual Private Network*

Adviser: Craig Smith

Eli Hartin**Joey Heacock****Dylan Terenzoni**

Computer Science

Nicholas French*SPAITR Sports Replay Application*

Adviser: David Benedetto

Owen Hilyard

Computer Science

*Metronome: A Kernel Bypass**Distributed Database*

Adviser: Aleksey Charapko

Riley Mularien**Chris Tjahjadi****Lazaros Tsaros**

Computer Science

Grading System Project

Adviser: Craig Smith

Earth Sciences**Group Leader: Joel Johnson****Sammie Beck**

Environmental Sciences

*Analyzing the Rate of Historical River**Channel Change in NH*

Adviser: Anne Lightbody

Gavin Drake

Environmental Sciences

*Estimating River Change in New England**Using Past Aerial Photography*

Adviser: Anne Lightbody

Zoe Kendall

Earth Sciences

*Microbial Community Respiration in the**Gulf of Maine*

Adviser: Kai Ziervogel

Aidan Lutz

Earth Sciences

*Contact Metamorphism of the Kittery**Formation at Cape Neddick, Maine*

Adviser: Jo Laird

Zach Marti

Environmental Sciences

How Topography Affects the Recovery of Vegetation after a Major Forest Fire Burn in the Western U.S.

Adviser: Michael Palace

Matthew McKinney

Environmental Sciences

*Mercury in Sediments of Great Bay**Estuary, NH*

Adviser: Maria Florencia Fahnestock

Katherine Wieck

Earth Sciences

*Occurrence of Per- and Polyfluoroalkyl**Substances (PFAS) in New Hampshire**Biosolids*

Adviser: Paula Mouser

Electrical and Computer Engineering**Group Leader: Richard Messner****Skyler Baumer**

Computer Engineering

Blaise O'Mara

Electrical Engineering

*EEG-Based Spanish Language Proficiency**Classification: A Power Spectrum and**Cross-Spectrum Analysis*

Advisers: Ronald Croce, Wayne Smith

Dylan Callahan**Nick Snyder**

Electrical Engineering

Adam Elsner**Logan White**

Information Technology

Owen Tolve

Mechanical Engineering

EVO Moped Conversion

Adviser: Noah MacAdam

Jared Fortier

Computer Engineering

*How Do Different Non-Driving-Related**Tasks Affect Taking Back Control in**Automated Vehicles? A Within-Subjects**Study Using the Minisim Driving Simulator*

Adviser: Andrew Kun

Demetrios Galatis

Electrical Engineering

Audio Visualizer

Adviser: Richard Messner

Cameron Gavin**Nicholas Green****Nicholas Quinlan**

Computer Engineering

Thor's Hammer

Adviser: Dean Sullivan

Jie Huang**Francis Molino****Matthew Rollend**

Electrical Engineering

Trike for the Visually Impaired

Adviser: John LaCourse

Emilie Leavitt**Wesley Newsam**

Computer Engineering

*BlueSweeper: Bluetooth Frame Injection**for Existing Peripheral Connections*

Adviser: Dean Sullivan

Marc Patnaude**Nick Wallace****Aaron Weiss**

Electrical Engineering

Vacuum Tube Audio Amplifier

Adviser: Richard Messner

Levi Poland

Electrical Engineering

Noise Cancelling Speaker

Adviser: John LaCourse

William Ralston**Evan Stenger**

Electrical Engineering

Distance and Velocity Measuring Radar

Adviser: Nicholas Kirsch

Eric Smith

Electrical Engineering

*Magnetic Stripe and RFID Skimming**Device with Bluetooth Functionality*

Adviser: Dean Sullivan

Innovation Scholars — Group A**Group Leader: Shawna Hollen****Andrea Bartus****Meghan Herlihy**

Bioengineering

Sabby Clemmons

Electrical Engineering

*Electrospinning of Dextran-Based**Polysaccharide to Fabricate Nanofibers**for Cell Culture*

Adviser: Linqing Li

Alex Bernard

Undeclared

Seth Carl**Ryan MacKay****William Metz**

Mechanical Engineering

Eco Fill

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Anthony Bilodeau

Mechanical Engineering

Hydroponic Bay

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Catherine Bodenrader

Sociology

Josephine Crotty

Mechanical Engineering

Plant Drainage Analysis

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Matthew Breton

Engineering Physics

Ronan Fleming

Chemical Engineering

Naya Leslie

Bioengineering

*Fibrin-Based Biomaterials Modulate**Breast Cancer Cells Migration*

Adviser: Linqing Li

Torsten Diesel

Physics

Ali Osman

Computer Science

Human Factor in Internet Virality

Adviser: Dean Sullivan

Elisabeth Drakatos

Undeclared

Alexander White

Analytics and Data Science

Album Cover Analysis

Adviser: Dean Sullivan

Kaleigh Wilson

Mechanical Engineering

Articulating Figure

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Innovation Scholars — Group B**Group Leader: Shawna Hollen****Joseph Aubut****Sam Harms**

Mechanical Engineering

Matthew McCoy

Mechanical Engineering

E-Bike Transmission Design

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Camden Bergeron**Gabriel Pointer**

Ocean Engineering

*Observation of King Tide Floods in**Hampton, New Hampshire, Using**Basic Sensors*

Advisers: Savannah DeVoe, Diane Foster

Emma Burr

Mathematics

Brendan Gage

Undeclared

James Macchi

Biology

Daniel Nelson

Earth Sciences

*Future of Hampton's Beach: Measuring**Coastal Erosion with GPS and Beach**Profile Data*

Advisers: Savannah DeVoe, Diane Foster

Douglas Coulter

Mechanical Engineering

Hydraulic Locomotion

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Diego Gatti

Mathematics

Alec Mercer

Mechanical Engineering

Tyler Simone

Analytics and Data Science

*Wireless Water Quality Monitoring with**Arduino and LoRa*

Adviser: Kyle Ouellette

Carson Loughridge

Mathematics

*Real-Time Optimization of UNH Bike**Share System*

Adviser: Dean Sullivan

Jarrett Madru

Chemical Engineering

Joshua Riley

Physics

Miniature Piano

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Ian Stewart

Civil Engineering

Tesla Turbine

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Innovation Scholars — Group C**Group Leader: Shawna Hollen****Mekan Annayev****Connor Bernard****Pedro Doukas****Geo de Clermont**

Mechanical Engineering

Ultrasonic Levitation

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Onyeka Ariguzo**James Brackett**

Bioengineering

*Deconstructing Material Dimensionality to**Regulate Ovarian Cancer Growth*

Adviser: Linqing Li

Christopher Bartos

Engineering Physics

Ava Chretien**Kaylee Murphy**

Environmental Engineering

Aife Ruane

Environmental Sciences

*Development of New Blue Robotics**Pressure Temperature Sensors to Monitor**Sunny Day Flooding*

Advisers: Savannah DeVoe, Diane Foster

Benjamin Blumsack

Mechanical Engineering

Jane McCue

Environmental Engineering

George Nigro

Civil Engineering

*2023 Hampton Beach Weather Station**Deployment*

Advisers: Savannah DeVoe, Diane Foster

Colin Casey

Electrical Engineering

Guitar Distortion Pedal

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Amelia Gelina**Jason Gomez**

Chemical Engineering

*Metal Organic Frameworks for**Drug Delivery*

Adviser: Aylin Aykanat

Drew Gulley

Civil Engineering

Giovanni Ionfrida**Paul Marino**

Mechanical Engineering

*Trash vs. Technology: Building a 3D**Constructed RC Car Out of Used Parts*

Advisers: Elizabeth Mamros,

Benjamin Mitchell

Wyatt McLaughlin

Mechanical Engineering

Ski Bike Conversion

Advisers: Elizabeth Mamros,

Benjamin Mitchell

**Mechanical Engineering —
Competition and Clubs****Group Leaders: Juan Bautista,
Anthony Puntin****Grant Arnold****Jacob DeSousa****Dan Maille**

Mechanical Engineering

Christian Baduria**Preston Collette****Yicheng Su**

Computer Science

Alison Kim

Art: Studio Art, Mechanical Engineering

Quad-X Swarm

Adviser: May-Win Thein

Nikhil Bala**Nathan Logan****Jose Navarro**

Computer Science

Benjamin Brockway**Cameron Charette****James Ennis****Hayden Herrick****Owen Payeur****Peter Yankowski**

Mechanical Engineering

*LunaSwarm: NASA Robot**Mining Competition*

Adviser: May-Win Thein

Raeanne Breton

Ecogastronomy, Entrepreneurial Studies

Aidan Cadogan

Civil Engineering, Sustainability

Allison Childs**Katie Dold****Daniel Sheehan**

Ocean Engineering

Luke Conroy**Teddy Evans**

Mechanical Engineering

Madeline Strange

Environmental Engineering

*Swellular — Wave Powered**Communications System for First**Responders — MECC Competition*

Advisers: Erin Bell, Erin Hale,

Martin Wosnik

Max Carpenter

Mechanical Engineering,

Whillam Grissino**Dan Joyce****Jared Lariviere****Thomas LeHoullier****William MacDonald****Alice Wade****Brandon Weeks**

Mechanical Engineering

Mason McDonald

Computer Science

Dylan Parmentier

Engineering Physics

UNH SEDS Hybrid Rocketry

Adviser: Todd Gross

Matt Colucci**Caleigh D'Angelo****Jesse Hight****Jessica Jin****Jordan LeClair****Matt Mouser****Brooke Shepard**

Mechanical Engineering

Amina Nefic

Environmental Engineering

*U.S. Department of Energy**Solar Decathlon*

Adviser: Felix DeVito

Jacob Deem**Alexander Fragomeni****Jack Gray****Wade Mitchell****Matthew Scaringella****Graham Ten Haken**

Mechanical Engineering

UNH Baja SAE 2022-2023

Adviser: Todd Gross

Connor Floyd**Nicholas Gould****Sean Leahy****Emmett O'Brien****Jordan Olinny****Robert Scammon****Kiana Sherman****Maxwell Szczapa****Sam Tower****Luke Waterman****Daniel dos Santos**

Mechanical Engineering

UNH Precision Racing (FSAE)

Adviser: Todd Gross

**Mechanical Engineering —
Industry****Group Leaders: Juan Bautista,
Anthony Puntin****Corey Breault****Corey Olson****Camden Welch**

Mechanical Engineering

Northeast Passage Sled Hockey

Adviser: Todd Gross

Finn Callahan**James Cheever****Tyler Ricard****Adam Taatjes**

Mechanical Engineering

Helmet Testing Platform

Adviser: Todd Gross

Jonathan DiGiosa**Jalen Galan****Brett Goldstein****Derek Jackson****David Pekkala**

Mechanical Engineering

UNH Pedicab Project

Advisers: Juan Bautista, Brent Bell

Riley Drew**Collin Edminster****Nathaniel McCarvill****Jake Terrell**

Mechanical Engineering

CNC Machine Automatic Door — REMCO

Advisers: Brad Kinsey, Mike Locke

Estuardo Pinto**Jason Provencher****Shane Toma**

Mechanical Engineering

*Bladed Disk Defect Detection Using**Machine Learning*

Adviser: John Roth

**Mechanical Engineering —
Research****Group Leaders: Juan Bautista,
Anthony Puntin****Ian Connor****Rebecca Dorzens****Garrett Mallard****Avonlea Westhoff**

Mechanical Engineering

Robotic Blacksmithing in Space

Adviser: Brad Kinsey

Matt Eaton

Mechanical Engineering

*Development of In-Plane Torsion Testing**Fixture and Experiment for Sheet Metal*

Adviser: Jinjin Ha

Nicole Forno**Eli Lemieux**

Mechanical Engineering

The Subsea Science Sprinkler: Understanding Uniform Flow along a Controlled-Source Array through Combined Theoretical and Empirical Methods

Adviser: Elizabeth Weidner

Eli Webber

Mechanical Engineering

Use of Nano Indentation for Determination of Local Properties in Dual Phase Steels

Adviser: Marko Knezevic

Ocean Engineering

Group Leader: May-Win Thein**Aaron Belesca**

Mechanical Engineering

Amelia Finnell

Marine, Estuarine and Freshwater Biology
Nature-Based Shore Protection to Stabilize Estuarine Sediment

Advisers: Diane Foster, David Fredriksson, Raymond Grizzle, Krystin Ward

Kendall Boniecki**Annie Duong****Ian Lindberg**

Mechanical Engineering

Zachary DiCicco**Clifton Sullivan****Harrison Ursitti**

Computer Science

Colby Tuttle

Ocean Engineering

*Marine and Naval Technological**Advancements for Robotic Autonomy**(MANTA RAY) KRILL DEVELOPMENT:**U.S. Navy's Unpiloted Underwater Vehicle*

Advisers: Matthew Plumlee,

Yuri Rzhанov, May-Win Thein

Aidan Boucher**Christina Karagianis**

Computer Engineering

Ethan Danielson**Eli Lemieux****Joshua Minard****Thomas Oliver**

Mechanical Engineering

Zachary DiCicco**Clifton Sullivan****Harrison Ursitti**

Computer Science

Maggie Enderle**Stephanie Rota****Samuel Whitney**

Ocean Engineering

Mia Seitz

Marine, Estuarine and Freshwater Biology

*Project MANTA RAY: Ghost**Unpiloted Performance Platform**Submersible (GUPPS)*

Advisers: Matthew Plumlee,

Yuri Rzhанov, May-Win Thein

Hunter Clark**Christopher Redard**

Mechanical Engineering

Natalie Cook

Ocean Engineering

Zachary DiCicco**Clifton Sullivan****Harrison Ursitti**

Computer Science

*Project MANTA RAY: Unpiloted**Underwater Vehicle with Support from**Autonomous Surface Vehicle Network*

Advisers: Matthew Plumlee, Yuri Rzhанov,

May-Win Thein

Phillip Cooper

Ocean Engineering

Gwenyth Hultquist

Anthropology, Mechanical Engineering

Corey Petix

Marine, Estuarine and Freshwater Biology

Restoration Acoustics

Adviser: Michelle Fournet

Matthew Furletti**Eli Silovich**

Ocean Engineering

Lumpfish Variable Flow Chamber

Advisers: Elizabeth Fairchild,

Tracy Mandel, Shelby Perry, Martin Wosnik

Cole Henke

Ocean Engineering

Nick Pitkin

Mechanical Engineering

Data-Collection System for Using Oysters as Bioindicators

Advisers: Brittany Jellison, Easton White

Physics

Group Leader: Nathaly Santiesteban**Kelly Bisson**

Engineering Physics

*3UCubed: Calibration of Ultraviolet**Photomultiplier Tube*

Adviser: Marc Lessard

Logan McHaney

Engineering Physics

*Increasing the Pass Rate of XMA's Thin**Film Products by Analyzing the Thickness**Distribution in the Sputtering System*

Adviser: Shawna Hollen

Gavin Smith

Physics

*Investigating Layer Dependence in NbTe₂**Using Scanning Probe Microscopy*

Adviser: Shawna Hollen

James Wirth

Engineering Physics

*Reducing the Variability and Cost of**Determining the Coefficient of Friction of**Various Lubricants*

Adviser: John Roth

University-Wide Undergraduate Sustainability Research Symposium

Oral Presentations

Wednesday, April 19
9 a.m.–12 p.m. and 1:30–4:30 p.m.
Memorial Union Building, Rooms
330, 332, 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.

Phoebe Adame

Environmental Sciences, Sustainability

Elise Bender

Management, Sustainability

Grace Cannon

Marketing, Sustainability

Jordan Moyer

Information Systems and Business

Analytics, Sustainability

UNH Thrift Store

Advisers: Jennifer Andrews, Alex Freid,
Erin Hale

Jacob Allgaier

Community and Environmental Planning
*What Are the Roles of Networks in Regards
to Planners and Municipal Practitioners?*

Adviser: Jennifer Andrews

Sara Berg

Environmental Engineering

*Embodied Carbon of Purchasing: UNH
Case Study*

Adviser: Allison Leach

Larissa Biette

Art: Studio Art, Sustainability

Cole Burnham

Psychology, Sustainability

Elisabeth Hunter

Anthropology, Sustainability

Liliana Vornehm

Community and Environmental
Planning, Sustainability

*Planning for Climate Change in
Strafford County*

Advisers: Jen Czysz, Erin Hale,
Autumn Scott

Julie Bobyock

Environmental Sciences, Sustainability

Kylie DeFeo

Sustainability, Zoology

Marley Gonsalves

Marine, Estuarine and Freshwater

Biology, Sustainability

Matt Oriente

Information Systems and Business

Analytics, Sustainability

Potential for HydroPhos in New Hampshire

Advisers: Erin Hale, Wilfred Wollheim

Raeanne Breton

Ecogastronomy, Entrepreneurial Studies

Aidan Cadogan

Civil Engineering, Sustainability

Allison Childs

Katie Dold

Daniel Sheehan

Ocean Engineering

Luke Conroy

Teddy Evans

Mechanical Engineering

Madeline Strange

Environmental Engineering

Swellular — Wave Powered

*Communications System for First
Responders — MECC Competition*

Advisers: Erin Bell, Erin Hale,
Martin Wosnik

Joseph Caswell

Management, Sustainability

Brayden Danforth

English, Sustainability

Bridget Danielson

Economics, Sustainability

Holly Magowan

Community and Environmental
Planning, Sustainability

*Review of the Current Status of
Agrivoltaics*

Advisers: Erin Hale, Beth McGuinn,
Rebecca Sideman

Zara Cheney

Business Administration, Sustainability

Alexis Eaton

Environmental Engineering,

Sustainability

Ned Kayarian

Information Systems and Business

Analytics, Sustainability

Jason Staples

Analytics and Data Science, Sustainability

*The Implementation of a Solar Parking Lot
with Electric Vehicle Charging Stations at
UNH's Durham Campus*

Advisers: John Aber, Erin Hale

Isabella Dee

Environmental Conservation and
Sustainability

*How the Life Cycles of Tobacco, Smoke,
and Nicotine Products Affect Us and
the Environment*

Advisers: Nancy Bushinsky, Jade Chalkley

Alexis Eaton

Catey Selby

Environmental Engineering,

Sustainability

Molly Kent

English, Women's and Gender Studies

Samantha Pearson

Physics

Honors College Sustainability Pathway

Advisers: Catherine Peebles, Fiona Wilson

Leah Glidden

Management, Sustainability

Mckenna Wilson

Finance, Sustainability

Sustainable Fisheries Financing

Advisers: Erin Hale, Lindsey Williams

Brooke Kane

Business Administration, Sustainability

Nathan SalasEnvironmental Engineering,
Sustainability**Suzanne Scharff**Sustainability, Women's and
Gender Studies**Daisy Young**

English, Sustainability

*Racial Equity in New Hampshire Farm
to School*

Advisers: Erin Hale, Stacey Purslow

Nathan MaybachSustainability, Women's and
Gender Studies*Improving Public Health, Sustainability,
and Community: Cat Trax Bike Share*

Advisers: Jennifer Andrews, Jade Chalkley

Molly NortonEnvironmental Conservation and
Sustainability, International Affairs*The Factors of Food*

Adviser: Allison Leach

Luke Nugent

Forest Technology

*A Cost-Benefit Analysis of Shelter Wood
Silviculture and Solar Panel Lease**Payments for a 30-Acre Tract of Land in
New Hampshire*

Adviser: Ranjit Bawa

Matt OrienteInformation Systems and Business
Analytics, Sustainability*An Analysis of Corporate Carbon
Reduction Targets*

Adviser: Fiona Wilson

Jason Plant

Entrepreneurial Studies

*Growth Drivers and Inhibitors of the B
Corp Movement*

Adviser: Fiona Wilson

Brett Schultz

Entrepreneurial Studies, Sustainability

*The Role of Carbon Offsetting in Small
Businesses' Sustainability Practices*

Adviser: Jennifer Andrews

Anya TeehanEnvironmental Conservation and
Sustainability*What Will It Take to Make UNH Truly
Zero Waste?*

Advisers: Jennifer Andrews, Alex Freid

Alexandra Vergara

English Teaching

*Changemaker Education and
Trash2Treasure: Student Engagement
with Sustainability*

Adviser: Jade Chalkley

Jillian Zube

Philosophy, Political Science

Sustainable War Technology

Adviser: Jen Spindel

University-Wide Undergraduate Sustainability Research Symposium

Poster Presentations

**Wednesday, April 19
9:40–11 a.m. and 12–1 p.m.
Memorial Union Building,
Room 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.

ECOG 701: EcoGastronomy Capstone

Adviser: Dan Winans

Teagan BoweEcogastronomy, Hotel and Hospitality
Management*Drink Local: The Impact of Local Wineries
throughout New England***Raeanne Breton**Ecogastronomy, Entrepreneurial Studies
*Boston's Best: A Culinary Tourism Value
Chain Tour***Madeline Bronder**

Anthropology, Ecogastronomy

*Do Your Taste Buds Know How to Think?**The Divide of Language in the World of Wine***Caitlyn Cerasale**Ecogastronomy, Sustainable Agriculture
and Food Systems*Growing Green: How DIY Hydroponics
Can Introduce Sustainable Food Sources
for College Students***Reshma Giji**

Earth Sciences, Ecogastronomy

*Pallet to Plate: The Sustainable Life
of an Oyster***Julia Landcastle**

Ecogastronomy, Nutrition

*A Study of Food Waste: The Importance of
Community Connection***Gemma Rose**

Ecogastronomy, Nutrition

*The Benefits and Barriers of Utilizing Local
Grains in Baking*

MKTG 620: Sustainability in Marketing

Adviser: Shuili Du

Melanie Baillargeon

Daniel Taylor

Marketing

Melissa Duggan

Business Administration

Brandon Langdon

Finance, Marketing

One Step Apparel: Tackling Ocean

Pollution One Step at a Time

Grace Cannon

Marketing, Sustainability

Luke Curtis

Abigael Fillion

Tyler Lemay

Marketing

Tamara Thierus

Business Administration, Marketing

Ecolicious Juicery: Giving a New Life to

Imperfect Produce

Warner Casey

Margaret Gerard

Evan MacDonald

Olivia McCarren

Marketing

Jenna Gluck

Environmental Conservation and
Sustainability

The Slow Burn of Fast Fashion

Avery Cecchetti

Business Administration

Ross Green

Finance

Thomas McCauley

Marketing

Ciera Schwarzer

Business Administration, Marketing

Wildcat Kitchen: Reducing Food Waste

Nolan Duffy

Daniel Marino

Marketing

Krysta Mack

Management, Marketing

Jadyn Raftery-Smart

Business Administration, Management,
Marketing

Second Chance: Repair and Reuse for a

Healthier Planet

Allison Ivers

Entrepreneurial Studies, Marketing

Nora Lucy

Ashley Phillips

Vanessa Smith

Marketing

Stitch N' Save: Making Fashion Sustainable

Nolan Kirk

Finance, Marketing

Ashley Martin

Sophia Pagliazzo

Marketing

Tyler Tang

Management, Marketing

The High Price of Fast Fashion

The Naked Arts— Creativity Exposed! (Act I)

Wednesday, April 19

12–2 p.m.

**Paul Creative Arts Center,
Museum of Art**

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

Aubrey Benoit

English/Journalism

A Love Letter from My Therapist

Adviser: David Blair

Molly Kent

English, Women's and Gender Studies

A Starved September

Adviser: Thomas Payne

Julie LaRue

Art: Studio Art

ConWoman: Pro(tagonist)s and

Con(vention)s

Adviser: Julee Holcombe

Molly Maynard

Fine Arts

Removed from Time: A Poetic Experience

Adviser: Julee Holcombe

Lily Neher

Communication, Theatre

Dance as Communication

Advisers: Tom Alsip, Assaf Benchetrit

Gabrielle Suleiman

Theatre

Body Dysmorphia in the Theatre and

Dance Industry

Adviser: Tom Alsip

Rhi Watkins

Dance, English/Journalism

We Will Not Be Silenced

Adviser: Tom Alsip

UNH Manchester Undergraduate Research Conference

Poster Presentations

**Wednesday, April 19
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.

Karla Almanzar Sandoval

Jesse Arsenault

Mariah Beaudoin

Dmytro Bilous

Nathan Binette

Ellie Brown

Lee Brown

Ian Cahoon

Hieu Dang

Connor Dupuis

Jessica Elkins

Jacob Henry

Davis Moore

Fernando Perez

Christopher Puzzo

Alexander Wachenfeld

Computer Science

Cameron Audette

Dylan Haus

Derek Nicholas

Yalambar Rai

David Reynolds

Computer Information Systems

UNH Manchester Computing Capstone:

A Group Research Project in Automatic

Speech Recognition

Adviser: Michael Jonas

Brittney Andrews

Biotechnology

The Art of Microbes

Adviser: Suzanne Cooke

Emily Baker

Neuropsychology

Why So Nostalgic? Understanding the

Reminiscence Bump

Adviser: Alison Paglia

Mahalakshmi Bandaru

Anya Kurtenbach

Doaa Kadhim Kzar

Aya Raouf

Biotechnology

Comparative Analysis of Transfection

Methods with GFP Plasmid in HEK293

and RVM Cells

Adviser: Won Hyuk Suh

Marjorie Baskerville

Biological Sciences

Case Study: Deep Vein Thrombosis Leading

to a Pulmonary Embolism

Adviser: Suzanne Cooke

Malory Bernstein

Psychology

Painting the Future: A Look at Art Therapy

and People Living with Dementia

Adviser: Alison Paglia

Vishal Bharathi

Teja Kannekanti

Chethan Sai Dhinesh Vagvala

Biotechnology

Effects of Antibiotic Concentration and

Temperature on Blue Fluorescent Protein

Production in Bacteria Containing pNCS

BFP Plasmid

Adviser: Won Hyuk Suh

Maggie Briggs

Biotechnology

The Effect of FOXN2 on HeLa Celia

Production

Adviser: Kristen Johnson

Duncan Britton

Caitlin Merrill

Gnyaneshwari Muddangula Vaddae

Biotechnology

Impact of Serum Concentration on

Transfection of HEK 293 Cells with GFP

Adviser: Won Hyuk Suh

Jacob Brown

Ian Harris

Anya Kurtenbach

Matthew Woodworth

Biotechnology

Bioprinting Human Stem Cell Organoids

Adviser: Won Hyuk Suh

Jacob Brown

Biotechnology

Synthesis and Characterization of Tunable

Gelatin Methacrylate Hydrogels

Adviser: Won Hyuk Suh

Jacob Brown

Ian Harris

Aarti Sunilkumar Thawani

Biotechnology

The Effects of Silica Nanoparticles on the

Printability of Gelatin

Adviser: Won Hyuk Suh

Evelyn Brunette

Neuropsychology

Megan McKinnon

Psychology

Feasibility of Using a Wearable

Electrodermal Sensor with Preschool-Aged

Children: A Behavioral Observation Study

Adviser: Nicholas Mian

Evelyn Brunette

Neuropsychology

Megan McKinnon

Psychology

The Relationship between Economic

Adversity and Emotional Functioning in

Preschool-Aged Children

Adviser: Nicholas Mian

Taylor Burwen

Candice Martin

Biological Sciences

Integrating and Exposing STEM Concepts

into the Youth of Today

Adviser: Patricia Halpin

Olivia Cadorette

Biotechnology

Acquiring a Pharmacist Technician

Certification

Adviser: Patricia Halpin

Carlo Jason Capuz

Information Technology

M.E.R.N. and Django: A Comparative Analysis of Full Stack Web Development

Adviser: Mihaela Sabin

Annie Carr**Jessica Nehme****Stephanie Slaybe**

Public Service and Nonprofit Leadership

HB619 Prohibiting Gender Transition Procedures for Minors, Relative to Sex and Gender in Public Schools, and Relative to the Definition of Conversion Therapy

Adviser: Stephen Pimpare

Annie Carr

Public Service and Nonprofit Leadership

How Does Social Media Usage Affect the Mental Health among Young Adults?

Adviser: Stephen Pimpare

Nicholas Chace

History, Homeland Security

Have Our Morals and Values as a Society Changed, Leading to the High Number of Mass Shootings in Recent Years?

Adviser: Stephen Pimpare

Saikiran Chatre**Rhea Dsouza****Vyshnavi Nithya Madapakula****Ganesh Vodala**

Biotechnology

The Impact of Temperature on Bacterial Synthesis of mCherry Fluorescent Protein

Adviser: Won Hyuk Suh

Jose Cintron-Ortiz**Connor McWhorter Sperr**

Public Service and Nonprofit Leadership

HB469-FN: Banning Discrimination against Housing Choice Vouchers in the Rental Market

Adviser: Stephen Pimpare

Alex Cogliano

Public Service and Nonprofit Leadership

Is There Correlation between Violent Video Games and Aggression?

Adviser: Stephen Pimpare

Jessica Cote

American Sign Language (ASL)/English Interpreting

Down the Warp Pipe: Classic Video Games and Nostalgia

Adviser: John Sparrow

Eve Cox

Homeland Security

What Have Been Sports' Most Prominent Security Concerns in the Last 10 Years?

Adviser: Stephen Pimpare

William DeSilva

Biological Sciences

Kaitlyn Douillard**Megan Ross**

Psychology

Tara Duffy**Joseph Planchet****Abeer Shabaka**

Neuropsychology

Vishnu Soni

Neuropsychology

Cataloging Multiple-Disappearance Trends in Motion-Induced Blindness

Adviser: John Sparrow

William DeSilva

Biological Sciences

Ethan Edwards**Jean-Pierre Minembe**

Biotechnology

Characterization and Quantification of Protein Overexpression in Bacterial Cells through Vector Manipulation

Adviser: Won Hyuk Suh

William DeSilva

Biological Sciences

Evaluation of the Effectiveness of Polysaccharide Nutrient Sources on Antibiotic Production of Unknown Soil Bacteria

Adviser: Suzanne Cooke

William DeSilva**Micaela Minassian**

Biological Sciences

Lindiwe Jiri**Nadia Keokaminh****Uyen Ly**

Biotechnology

Synthesis, Purification, and Use of Transglutaminase

Adviser: Won Hyuk Suh

Elvis Demirovic

Biotechnology

Advanced Emergency Medical Technicians: The Bridge between Advanced and Basic Life Support

Adviser: Won Hyuk Suh

David Doucet

Homeland Security

Does Money Affect Happiness?

Adviser: Stephen Pimpare

Rayna Duclos

Psychology

Dementia and End-of-Life Decisions

Adviser: Alison Paglia

Mike Dullen**Uyen Ly****Matthew Woodworth**

Biotechnology

Investigation of Triple Plasmid Transfection for RVM Cells

Adviser: Won Hyuk Suh

Ethan Edwards**Doaa Kadhim Kzar**

Biotechnology

Deriving Neural Stem Cells from Induced Pluripotent Stem Cells

Adviser: Won Hyuk Suh

Aidan Fleming

Homeland Security, International Affairs

Will Generational Differences in Perspectives Regarding the 9/11 Terrorist Attacks Have an Impact on the Future of Homeland Security within the United States?

Adviser: Stephen Pimpare

Noah Forest

Psychology

Frontotemporal Dementia and Judgment

Adviser: Alison Paglia

Haylee Foster

Biology

Public Health Literacy: Assuring an Educated Citizenry Resilient to Public Health Challenges

Advisers: Semra Aytur, Rosemary Caron

Monique Gingras**Nadin Jaiiubekova****Brandon Smith**

Biotechnology

Optimizing Confluency for Transfection of pcDNA3-mRFP into HEK 293T Cells

Adviser: Won Hyuk Suh

Noemi Gutierrez

Biological Sciences

Comparative Genomics between Barn Owls and Related Species

Adviser: Dr. Sarah Prescott

Aicha Hamcha

Public Service and Nonprofit Leadership

Do Adverse Childhood Experiences (ACEs) Have an Effect on Academic Performance in Young Adults?

Adviser: Stephen Pimpare

Max Hytinen

Public Service and Nonprofit Leadership

Has the Implementation of Tablets, Laptops, and Smart Devices Affected High School Classroom Learning?

Adviser: Stephen Pimpare

Nadin Jaiiubekova**Ashna Siddiqui**

Biotechnology

Analyzing Correlations between FOXN2 and Cilia Loss in NIH-3T3 Mammalian Cells in Application to Cancer

Adviser: Kristen Johnson

Kavya Kalaveni**Caitlin Merrill****Akshada Somvanshi****Chethan Sai Dhinesh Vagvala**

Biotechnology

Impact of Porous Structure 3D Printing on Cell Culture Health and Viability

Adviser: Won Hyuk Suh

Kavya Kalaveni**Akshada Somvanshi****Aarti Sunilkumar Thawani**

Biotechnology

Transfection of pcDNA3-mRFP in ReN Cells VM

Adviser: Won Hyuk Suh

Phoebe Kelley

Biotechnology

Comparative Genomics of the Eastern Screech Owl

Adviser: Dr. Sarah Prescott

Nadia Keokaminh**Savannah Lopez****Ahd Mohamed**

Biotechnology

Culturing Human Neural Stem Cells on Transparent Lego Parts

Adviser: Won Hyuk Suh

Nadia Keokaminh

Biotechnology

Thayer School of Engineering at Dartmouth Experience: Assessing the Feasibility of 3D Printing and Tissue Scaffolds

Adviser: Suzanne Cooke

Chris Kilgore

Homeland Security

Fifth Generation Warfare and the Future of Conflict

Adviser: Andrew Macpherson

Alexa Leigh

Public Service and Nonprofit Leadership

Is Eyewitness Testimony Reliable?

Adviser: Stephen Pimpare

Savannah Lopez

Biotechnology

Students Prefer Final Projects That Are Scaffolded to Avoid Procrastination and Negative Impact on Mental Health

Adviser: Patricia Halpin

Keenan MacDonald

Public Service and Nonprofit Leadership

Can Proper Education and Positive Interactions with Snakes Help Reduce and/or Eliminate a Direct Fear of Snakes?

Adviser: Stephen Pimpare

Takudzwa Marindire

Public Service and Nonprofit Leadership

Is There a Relationship between Bad Governance and Poverty in Zimbabwe?

Adviser: Stephen Pimpare

Dan Marshall

Public Service and Nonprofit Leadership

What Kind of Exercise Is the Best in Helping to Alleviate Depression Symptoms?

Adviser: Stephen Pimpare

Madison Monbleau

Public Service and Nonprofit Leadership

What Is the Effect of Social Media Use on Academic Self Efficacy?

Adviser: Stephen Pimpare

Pamella Lais Mozzier**Joseph Planchet**

Neuropsychology

The Reliability of the Balance Error Scoring System Test is Maintained during Remote Administration

Adviser: Daniel Seichepine

Jessica Nehme

Public Service and Nonprofit Leadership

HB619

Adviser: Melissa Aikens

Kiluba Ngila

Biological Sciences

Pharmacy Technician Program

Adviser: Suzanne Cooke

Justin O'Donnell**Sheri Paloma**

Public Service and Nonprofit Leadership

SB151-FN: Relative to Mental Health Education

Adviser: Stephen Pimpare

Jordan Odell

Biological Sciences

Modern Day Antibiotic Discovery

Adviser: Suzanne Cooke

Joel Osterman**Chethan Sai Dhinesh Vagvala**

Biotechnology

The Effects of All-Trans Retinoic Acid on the Differentiation of Human Neural Stem Cells

Adviser: Won Hyuk Suh

Bryanna Rizas

Biotechnology

Antibiotic Discovery: Monosaccharide vs. Polysaccharide

Adviser: Suzanne Cooke

Kira Smith

Neuropsychology

Psychedelic Treatment

Adviser: Alison Paglia

John Tiano

Public Service and Nonprofit Leadership
Does Childhood Physical Activity/Athletic Participation Impact Adulthood Physical Activity/Athletic Participation?
 Adviser: Stephen Pimpare

Gwendolyn Tupman

Biotechnology
Establishing the Connection between FOXN2 and a Cilia Signature in HeLa Cells
 Adviser: Kristen Johnson

Andrew Widdekind

Homeland Security
How Can Resilience for Pluvial Flooding (Surface Water Runoff Because of Torrential Rain Events) be Improved?
 Adviser: Stephen Pimpare

Matthew Woodworth

Biotechnology
Investigation of PEI-g-PEG for Human Progenitor Neuronal Cell Transfection
 Adviser: Won Hyuk Suh

UNH Manchester URC Cinema Arts Day

**Thursday, April 20
 9 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

Rachel Bidwell

Communication Arts
A Dog's Best Friend

Clair Carroll

Business Administration
Child of the Storm

Luis Rosado

Communication Arts
The Basement

Luis Rosado

Communication Arts
The TWP Interview

Liam Shelly

Communication Arts
Drag Night

Liam Shelly

Communication Arts
Majed

Adam Zienkiewicz

Communication Arts, English
Miss Z: Third Grade Teacher Video Production Project

History Department Undergraduate Research Conference

**Thursday, April 20
 12–3 p.m.
 Memorial Union Building**

The History Department hosts several panels of undergraduate history majors who present research projects from their academic classes, research seminars, independent research projects, and Honors theses. The History Undergraduate Research Conference provides History students with the opportunity to share their work with fellow students, professors, and families.

Memorial Union Building, Room 334

Gender and Power

Moderator: Janet Polasky

Beth Newton

History
Slaves of the State: The Exploitation of Women through Convict Leasing
 Adviser: Lucy Salyer

Haley Parker

History, Women's and Gender Studies
Cultural Representations of Women As Allegories for the Nation-State
 Adviser: Janet Polasky

Luke Taylor

History
Weltpolitik und Weltkrieg: The Imperialism Debate within Second International Socialism
 Adviser: Janet Polasky

Memorial Union Building, Room 332

**Sites of Continuity/Sites of
 Disruption**

Moderator: Fredrik Meiton

Morgan Eames

Anthropology, History
An Inalienable War: The Evolution of Racial Discourse in the Palestinian-Israeli Conflict 1967-1995
 Adviser: Fredrik Meiton

Zoie Haskell

History, Women's and Gender Studies
Power, Gender, and Trauma in Arab Cinema, 1990-2020
 Adviser: Fredrik Meiton

Maggie Joyce

Classics, History
Religious Continuity and Disruption in Ancient Corinth
 Adviser: R. Scott Smith

Memorial Union Building, Room 330

Smashing History

Moderator: Sara Wolper

Samantha DiNatale

Environmental Conservation and Sustainability, History
A Battle against "Ecology Nuts": An Examination of Olympic Oil Refinery Proponents
 Adviser: Kurk Dorsey

Tu Anh Duong

History
The Great Wonder: Understanding Delaware's Whipping Post
 Adviser: Sara Wolper

Christopher Holmes

History

The Buddhas of Bamian: A Lesson in Cultural Property, Iconoclasm, and the Rage of the Taliban

Adviser: Sara Wolper

Margaret Sawyer

International Affairs, Spanish

Selective Remembrance: Spanish-Islamic Heritage in Andalusia

Advisers: Thomas Safford, Sara Wolper

**The Naked Arts—
Creativity Exposed!****Act II****Thursday, April 20****12:40–2 p.m.****Paul Creative Arts Center,
Museum of Art**

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

Wesley Coffin

Music

Composing Music: The Method to the Madness

Adviser: Andrew Boysen

Grace Godfrey

Communication

It Was All a Lie

Adviser: Clark Knowles

Maddie Pender

Art: Studio Art

Recollecting Girlhood

Adviser: Brian Chu

Olivia Williams

Fine Arts

The Nature of Portraiture

Adviser: Benjamin Cariens

**All Colleges
Undergraduate Research
Symposium****Welcome Breakfast****Friday, April 21****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 21 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 332**Indigenous Heritage:
Past and Present**

Adviser: Svetlana Peshkova

Moderator: Elaine Marhefka

Isabel ColeSustainable Agriculture and Food Systems
*Indigenous Food Ways***Elisabeth Hunter**

Anthropology, Sustainability

*The Relationship between Food and Medicine in Indigenous New England***Patrick Hussey**

Communication, Educational Studies

*Approaching Mental Health from an Indigenous Perspective***Keyghan Lewis**

Anthropology

*Wabanaki Basket Weaving***Memorial Union Building, Room 330****Insecurity and Sovereignty:
Multifaceted Challenges,
Interdisciplinary Perspectives**

Moderator: Michael Cole

Ashleigh Eaton

International Affairs, Sociology, Spanish

Calculating the Dangers: The European Union, Maritime Migrants, and the Perilous Route from West Africa to the Canary Islands

Adviser: Smita Lahiri

Corilie Green

English, International Affairs

Cyber Sovereignty and International Cybersecurity

Adviser: Thomas Safford

Alonia Needs

Environmental Conservation and Sustainability, International Affairs

Drawing Connections between Environmental Conservation and Indigenous Knowledge

Adviser: Thomas Safford

Jack Quaranto

Homeland Security, International Affairs

Supply Chains in Shock: The Russia-Ukraine War and Global Economic Disruption

Adviser: Smita Lahiri

Margaret Sawyer

International Affairs, Spanish

Selective Remembrance: Spanish-Islamic Heritage in Andalusia

Advisers: Thomas Safford, Sara Wolper

Memorial Union Building, Room 302**Multidisciplinary Session I****Moderator:** Leigh Pratt**Kendall Bush**

Justice Studies, Political Science
Anti-Queer Policy and Rhetoric as It Translates to Increased Criminality against the Queer Community
 Adviser: Nena Stracuzzi

Brian Conti

Psychology
Critical Thinking: What It Means and Why It Matters
 Adviser: John D. Mayer

Travis Grimm

Justice Studies, Political Science
How Is China Using the United Nations to Redefine Western Liberal Ideologies as Defined by the United States?
 Adviser: Alynna Lyon

Taylor Nydam

Homeland Security, Russian
An Information Flow Model for Predicting National Security Intelligence Alliances
 Advisers: Katharine Cunningham, Andrew Macpherson

Memorial Union Building, Room 336**Multidisciplinary Session II****Moderator:** Tarkington Newman**Georgia Gempler**

Emily Komerska
 Neuroscience and Behavior
Replication of the Increment-Decrement Effects in Motion-Induced Blindness
 Advisers: Jessica Das Senjuti, Andrew Kitt, Joseph LaBarre, William Stine, Rebecca White

Danielle Martineau

Biomedical Science
Effect of an Acute Bout of Low-, Moderate-, and High-Intensity Aerobic Exercise on Immediate and Delayed Fractionated Reaction Time
 Adviser: Ronald Croce

Violet Sullivan

Exercise Science
Cardiorespiratory and Metabolic Responses to Low-Intensity Blood-Flow Restricted Running
 Adviser: Summer Cook

Memorial Union Building, Room 334**Chinese Nationalism, Security, and Expansionism**

Adviser: Lawrence C. Reardon
Moderator: Ben MacKillop

Victoria Broadley

Political Science, Psychology
The Impact of China's Cybersecurity Censorship

Brendan Bunnell

Political Science
The Senkaku/Diaoyutai Island Controversy and the Balance of Power in Asia

Ellie Correia

Political Science
Microwars: How U.S.-China Relations Have Made the Semiconductor a Matter of Security

Noah Gonzalez

Political Science
Analyzing the Expansion of State Borders

Albert Jovic

Political Science
Xi Jinping: How Nationalism and Romanticism Lead to Authoritarian Rule

Memorial Union Building, Room 338**The United States Engages the Global Economy**

Adviser: Lawrence C. Reardon
Moderator: Andrew Smith

Dylan Cordle

International Affairs, Political Science
What Are the Root Causes of Global Food Insecurity?

Jon Dickinson

Political Science
U.S. Reliance on Foreign Debt

Natalie Gauthier

International Affairs, Political Science
Immigration into the United States and the Economy

Steve MacDonald

Political Science
The Domino Effect of the Great Recession: From the U.S. to across the Pond

All Colleges Undergraduate Research Symposium

Poster Presentations, Session A

Friday, April 21
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.

Talia Anzivino

Ella Burhans

Lauren Hunter

Anya Ortakales

Psychology

Life Adversity among Transgender Homicide Victims: A Qualitative Approach

Adviser: Robert Eckstein

Christy Barber

Justice Studies, Political Science

Parental Rules and Legitimacy as Mediators between Parenting Styles and Rule-Violating Behavior

Adviser: Ellen Cohn

Casey Baumann

Genetics

Olivia Smith

Biology

Correcting a Salt Stress Phenotype in Arabidopsis thaliana Using Hybrid Phosphatase Transgenes

Adviser: Estelle Hrabak

Christopher Berthrong**Sean Doherty****Chris Feldman****Nate Hobbs****Zachary Matthews****Joe O'Loughlin****Tyler Tran**

Exercise Science

Changes in Lactate Threshold Following a Transition to a Sedentary or Obesogenic Lifestyle in Young Men

Adviser: Michael Brian

Benjamin Boulton

Biomedical Science

Relating Fiber-Rich Foods and Physical Activity Level with Gastrointestinal Symptoms in Hispanic/Latino Adults Residing in New Hampshire

Adviser: Maria Carlota Dao

Madeline Bronder

Anthropology, Ecogastronomy

Cormac Day

Anthropology, History

Siobhain Murphy**Logan Snell**

Anthropology

Anthropological and Archival Investigation of Mummified Human Head

Adviser: Amy Michael

Yifang Chang

German, Psychology

Alexandra LaBrake

Neuroscience and Behavior

Bri Lavelle

Psychology

Jack Thompson

Nutrition

Recovery from Mask Inhibition during MIB

Adviser: William Stine

Lexi Corvino**Kacey Fleming**

Justice Studies, Psychology

Does Strict Parenting Lead to Increased Drug Use and Rule Violating Behavior? The Mediator of Depression

Adviser: Ellen Cohn

Josie Dardinski

Marine, Estuarine and Freshwater

Biology, Spanish

Rugosity and Diversity of Fish Species in Florida Keys

Adviser: Jennifer Dijkstra

Griffin Delin

Environmental Conservation and

Sustainability, Spanish

Investigating the Effectiveness of Ecuadorian Waterfunds through a Lens of Sustainability

Adviser: Catherine Ashcraft

Cruz Dellasanta

Anthropology, Justice Studies

Kylee Jedraszek

Justice Studies, Sociology

Missing Twice? A Comparison of Known "No Body Homicide" Cases to Missing Persons in NamUs

Adviser: Amy Michael

Madison Gould

Communication Sciences and Disorders

Assessing Conversational Overlap in a Museum Setting

Adviser: Jill Thorson

Rachel Harrison

Neuroscience

Charlotte Kislevitz**Madeline Meyers****Jayda Vazquez**

Psychology

Examining the Association between Mental Health Symptom Severity and Body Awareness through an Ecological Momentary Assessment Protocol

Adviser: Jolie Wormwood

Hanna Holmgren

History, Justice Studies

Tracing the History of Gender Variant People's Relationship to Law Enforcement in the United States

Adviser: Robert Eckstein

Celia Lacey

Exercise Science

Does a Higher Level of Cardiorespiratory Fitness Prevent Changes in 24H Glucose Regulation after Transitioning to a Sedentary or Obesogenic Lifestyle in Young Males?

Adviser: Michael Brian

Nia Lessard

Nutrition

Health Risk and Self-Reported Stress and Eating Habits in First-Year Students

Adviser: Jesse Stabile Morrell

Jacob Mischka

Biology

PKS Survey of Streptomyces griseus in Stellwagen Bank National Sanctuary

Advisers: Semra Aytur, John Bucci

Julia Priest

Psychology

Boredom over Time

Adviser: Caitlin Mills

Emily Sandler

Environmental Conservation and Sustainability

Mark Troiani

Wildlife and Conservation Biology

Classifying Tree Species Surrounding Vernal Pools to Understand Their

Effects on Phenology of Vernal Pool-Associated Species

Advisers: Jennifer Purrenhage, Michael Simmons, David Steinberg

Katherine Stariknok

Communication Sciences and Disorders, Spanish

Impact of Foreign Accent on

Receptive Language Assessments for Bilingual Children

Adviser: Jill Thorson

Emily Waite

Exercise Science

The Effect of Post-Meal Walking Step Cadence on Time from Peak to Nadir Blood Glucose in Physically Inactive Young Women

Adviser: Michael Brian

Sarah Waleryszak

Nutrition

Calories In/Calories Out: Does It Relate to College Students' Sleep?

Adviser: Jesse Stabile Morrell

Virginia Weiss

Environmental Conservation and Sustainability

Supports and Barriers Affecting Community College Transfer Student Degree Persistence at a Four-Year Institution

Advisers: Melissa Aikens, Faith Frings

Marcella Wondal

Social Work

Exploring Life Skill Development and Transfer of Youth Experiencing Homelessness

Advisers: Tarkington Newman, Sherri Simmons-Horton

All Colleges Undergraduate Research Symposium

Oral Presentations, Session B

Friday, April 21 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 302

Multidisciplinary Session III

Moderator: Kate Gaudet

Corwin Freedman

Biology, Classics

The Evolution of Care for Horses from Late Roman Republic to Early Christianity

Adviser: Susan Curry

Nicholas Gigliotti

Justice Studies, Psychology

Peers Who Pressure: Its Effect on Police Legitimacy

Adviser: Ellen Cohn

Myah Kerbyson

Nursing

Nursing Students' and Recent Graduates' Observations of Fatphobia in the Clinical Setting

Adviser: Kerry Nolte

Ginger Schoff

Political Science

New Caudillos: A Survey-Based Portrait of Democracy in El Salvador and Brazil

Adviser: Mary Fran Malone

Aidan Thomas

Classics, Religious Studies

The Impact of Leviticus 25 on the Black Community in America

Adviser: Nicole Ruane

Memorial Union Building, Room 340

Multidisciplinary Session IV

Moderator: Jesse Stabile Morrell

Luke Botticelli

Biochemistry, Molecular and Cellular Biology

The Embryonic Stem Cell Complexome and Epichaperome

Adviser: Feixia Chu

Megan Broderick

Educational Studies, Environmental Conservation and Sustainability

Sustainability Advocates

Adviser: Jade Chalkley

Caleb Marrero

Health Sciences

The Epidemiology of Concussions among Collision Sports in Middle School Athletes

Adviser: Trish Kelshaw

Luke Nugent

Forest Technology

A Cost-Benefit Analysis of Shelter Wood Silviculture and Solar Panel Lease Payments for a 30-Acre Tract of Land in New Hampshire

Adviser: Ranjit Bawa

Memorial Union Building, Room 330

Outstanding Student Research from Communication — Comm-Entary

Moderator: R. Michael Jackson

Lauren Cole

Communication

Pandemic through the Lens: An Examination of Repeat Photography during Lockdown

Adviser: Joseph Terry

Emma DaRocha

Communication

Interorganizational Communication Case Study

Adviser: Renee Heath

Lydia Osmer

Communication, English Teaching

Case Study Report: The Five Stages of Death in WandaVision

Adviser: Mike Alvarez

Brie Surawski

Communication

Analysis of "My Sister's Keeper" and Parents of Terminally Ill Children

Adviser: Mike Alvarez

Ashley White

Communication, Women's and Gender Studies

The Role of Epistemics in Storytelling

Adviser: Danielle Pillet-Shore

Memorial Union Building, Room 334**Human Rights and Corruption in China**

Adviser: Lawrence C. Reardon
Moderator: Jon Dickinson

Aidan Collins
Political Science
China's Treatment of Its Citizens

Austen LeDonne
Political Science
Negative Impacts of the Triads on Chinese Society

Declan McCarthy
Political Science
Outer Manchuria: The Future Border Dispute with Russia and China

Lauren Sutton
Communication, Political Science
An Orwellian China: Chinese Corruption

Ryan Vona
Political Science
Starvation in Communist China

Memorial Union Building, Room 336**International Security and Global Governance**

Adviser: Alynna Lyon
Moderator: Jen Spindel

Corilie Green
English, International Affairs
NATO and International Cyber Defense Efforts

Travis Grimm
Justice Studies, Political Science
Reviewing the United Nations Security Council: Is It Time for Reform?

Ben MacKillop
Political Science
The Impact of Foreign Investment on the United States Home Market

Ryan McGrath
Political Science
Has the United States Learned How to Handle International Intelligence Disputes Properly?

Aliya Sarris
Political Science, Spanish, Women's and Gender Studies
The Dialectic Relationship between the UN and Latin American Regional Organizations

Memorial Union Building, Room 338**Russia's Invasion of Ukraine: Political, Economic, and Social Implications**

Moderator: Andrew Smith

Colin Browne
Political Science
Nationalism: The Decline of Multilateral Trade
Adviser: Lawrence C. Reardon

Dylan Cordle
International Affairs, Political Science
Here to Stay: Implications of the War in Ukraine and the Role Nuclear Weapons Play in Geopolitics
Advisers: Smita Lahiri, Jen Spindel

Q Quiles
Political Science
The Russian Invasion of Ukraine: Putin's Crusade or a War of Opportunity?
Adviser: Lawrence C. Reardon

Calvin Wels
Political Science
Effectiveness of Economic Sanctions in Achieving Political Goals
Adviser: Lawrence C. Reardon

Memorial Union Building, Room 332**The Impact of Climate Change on Global Finite Resources**

Adviser: Lawrence C. Reardon
Moderator: Michael Cole

Angus Bremner
Political Science
Politics of Natural Resources

Victoria Drake
Political Science
Enacting Aid: The Name behind the Plan

Conor Hill
Political Science
Climate Economics: Can Degrowth Promise to Make Our Communities More Climate Resilient?

Vinny Pallotto
Political Science
Green War: The Era of Clean Energy Competition

Amanda Pirani
English/Journalism, Political Science
What Incentivizes Trade Liberalization? Why Developing Countries Transition to More Open Economies

All Colleges Undergraduate Research Symposium**Poster Presentations, Session B**

Friday, April 21
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.

Kelsey Alimandi
Biology
Hannah Manning
Biomedical Science
Individual Behavioral and Neurobiological Markers Associated with Vulnerable to Alcohol Use Phenotype
Adviser: Sergios Charntikov

Laura Allen

Anthropology, Earth Sciences

Chase Johnson

Anthropology, French Studies

Activity Markers in the Arms: A Sample Population from Medieval Caesarea Maritima

Adviser: Amy Michael

Amanda Ares

Exercise Science

Comparing Lifestyle Behaviors and Body Composition in College Students with and without Health-Related Majors

Adviser: Summer Cook

Ila Bartenstein

Environmental Sciences, Sociology

Climate Change-Induced Stress in University Students

Adviser: Catherine Moran

Connor Belt

Health Sciences

Association of Language on Concussion Recovery in Collegiate Athletes

Adviser: Trish Kelshaw

Lindsey Broadhurst**Ava Maddox****Megan Miller****Amanda Wittemann**

Psychology

The Biased Mind: The Relationship between Affective Forecasting and Mental Health

Adviser: Jolie Wormwood

Devan Burke

Social Work

Youth Perceptions of Police at the Manchester Police Athletic League

Adviser: Tarkington Newman

Emma Carrigan

Genetics

Revolutionary Advances in the Treatment of Genetic Disease

Adviser: David Plachetzki

Taylor Cassiani

Italian Studies, Linguistics

The Contact between the Vocalic Systems of Hausa and Ekhwa

Adviser: Rachel Burdin

Sadie Chaffin**Sonia Russell**

Justice Studies, Psychology

Courtney Goodwin

Psychology

The Effects of Life Stressors on Rule-Violating Behavior: The Mediating and Moderating Effects of Temper

Adviser: Ellen Cohn

Libby Chase**Emily Meservey****Kiara Niero****Derek O'Brien****Amelia Taddei****Sophia Vaneck**

Exercise Science

Is There a Relationship between a Lower Lactate Threshold and Increased Blood Glucose Levels?

Adviser: Michael Brian

Qiayra Classen Randolph

Biology

*Frog-Eating Midges? Predation of Wood Frog Eggs (*Lithobates sylvaticus*) by Chironomid Midges (Diptera: Chironomidae)*

Advisers: Jennifer Purrenhage, David Steinberg

Lydia Collyns

Anthropology

Stable Isotope Analysis of Archaeological Human Remains from Spain and Croatia: An Analysis of Diet, Mobility, and Societal Stratification

Adviser: Les Fitzpatrick

Brian Conti

Psychology

Critical Thinking: What It Means and Why It Matters

Adviser: John D. Mayer

Christiana Donatelli

Biomedical Science

I Used the Graph: Students' Reasoning about Rate of Change and Population Growth

Adviser: Melissa Aikens

Kaleb Ducharme

Neuroscience and Behavior

Ensemble Perception of Depth in Virtual Reality

Adviser: Omer Daglar Tanrikulu

Samantha El-Massih

Nursing

The Psychosocial Impact of Health Maintenance in Young Adults Who Grew up with Chronic Illness

Advisers: Samantha Arnold, Kerry Nolte

Tanner Faucher

History, Political Science

Redistricting and Gerrymandering in New Hampshire

Adviser: Dante Scala

Max Gauthier

Kinesiology

The Association of Prior Lower Extremity Injury and Future Incidents of Concussion in Middle School Athletes

Adviser: Trish Kelshaw

Sophie Goodwin

Sociology, Sustainability

Demographic Change across Subareas of the United States

Adviser: Kenneth Johnson

Katherine Harpster

Neuroscience and Behavior

A Closer Look into Exploring Misinformation through a Twitter Simulation

Advisers: Laura Allen, Sarah Creer

Taylor Heck**Carly Little****Aleksandra Misiewicz****Emily Roberge****Violet Sullivan****Emily Waite**

Exercise Science

Comparison of the Effects of Lean Muscle Mass on Fat Oxidation in Sedentary and Obesogenic Lifestyles

Adviser: Michael Brian

Kylee Jedraszek

Justice Studies, Sociology

Forensic Identification Efforts in New Hampshire Cold Cases

Adviser: Amy Michael

Sabrina Kadariya

Health Management and Policy

A Syndemic Approach to Environmental Health in Manchester, New Hampshire

Adviser: Semra Aytur

Megan Kimball-Rhines

Communication, Women's and Gender Studies

Suzanne Scharff

Sustainability, Women's and Gender Studies

Madison Tingle

Women's and Gender Studies

Caitlin Turner

Sociology, Women's and Gender Studies

Emilia Willett

English Teaching, Women's and Gender Studies

Accessibility of Mental Health Resources at UNH

Adviser: Avary Thorne

Delaney Kjendal

Nursing

Universal Suicidality Screening in a Critical-Access Emergency Department

Advisers: Kimberly Force, Kerry Nolte, Sara Robinson

Megan Knuettel

Social Work

Influence of Mental Health and Gender Identity on Collegiate Student-Athletes

Adviser: Tarkington Newman

Jaxson Libby

Biochemistry, Molecular and Cellular Biology

Investigation of Mechanical Regulation on STAT3 Activity

Advisers: Linqing Li, Sarah Walker

Ian Lindberg

Mechanical Engineering

Engineering Analysis of Siege Engines in the First Crusade

Adviser: David Bachrach

Patricia Louis

Nursing

Analyzing Family Stress in America: A Look at Maternal Experience during the COVID-19 Pandemic

Adviser: Alyssa O'Brien

Kate Maimone

Social Work

The Development and Transfer of Life Skills of the Manchester Police Athletic League

Adviser: Tarkington Newman

Ashanti Maronie

Anthropology

The Role of Race in Bringing Home the Missing

Adviser: Amy Michael

Maryann McCahill

Biomedical Science

Optimization of Electrochemiluminescence Assay to Measure Hunger and Satiety

Hormones in Human Plasma

Adviser: Maria Carlota Dao

Camryn McNally

Kinesiology

Association of Access to Athletic Training Students and Concussion Care in Collegiate Athletes

Adviser: Trish Kelshaw

Andrea Pecora

Biomedical Science

Scanning Electron Microscopy of Geodermatophilaceae Rock Colonization

Adviser: Louis Tisa

Quinn Poole

Biochemistry, Molecular and Cellular Biology

Dairy Barn to Lab Bench: Imaging Ovaries to Analyzing Cell Function

Advisers: Dean Elder, Paul Tsang

Emily Pratt

Biochemistry, Molecular and Cellular Biology

STAT3 in TNBC Using GSK3 β and Integrin Inhibitors

Adviser: Sarah Walker

Aashaya Rajbhandari

Justice Studies, Sociology

Race of Victim and Offender in State Death Penalty Legislation

Adviser: Ryan Gibson

Alexis Roach

Justice Studies, Political Science

Tinkering with Tinker: Why the Supreme Court Must Protect Student Speech through Social Media

Adviser: J Kirk Trombley

Amir Robertson

Psychology, Women's and Gender Studies

Kyra Woodward

Justice Studies, Psychology

Gender Stereotypes in Categorical Processing Biases for Ambiguous Facial Expressions of Emotion

Adviser: Jolie Wormwood

Deborah Ross

Neuroscience and Behavior, Spanish

El Renacimiento Psicodélico de los Estados Unidos como una Oportunidad de Establecer las Fundaciones de la Reciprocidad, la Inclusión, y el Tratamiento para la Salud Mental

Adviser: Scott Weintraub

Emiliy Roy

Nursing

The Clinical Observations of Nursing Students and Recent Graduates Caring for LGBTQ+ People

Adviser: Kerry Nolte

Cole Sirafos

Psychology

Psychedelic Drugs: Implications for Treatment of Psychiatric Conditions

Adviser: Michael Mangan

Ethan Smith

Kinesiology

Is Prior Concussion History Associated with Future Lower Extremity Injury in Middle School Athletes?

Adviser: Trish Kelshaw

Jocelyn Therrien

Nutrition

Exploring the Prevalence, Safety and Efficacy of Blenderized Tube Feeding

Adviser: Maggie Dylewski Begis

Sierra Walsh

Biomedical Science, Neuroscience and Behavior

Neuronal Primary Cilia in Postnatal Brains

Adviser: Xuanmao Chen

Megan Welch

Nursing

Birth Trauma and Exercise Incontinence among Average Active Women

Advisers: Bridget Linehan, Kerry Nolte

All Colleges Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 21
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 334

Multidisciplinary Session V

Moderator: Liz Fowler

Darien Garner

Educational Studies, Linguistics
Dystopia in the 21st Century: Where the Genre Needs to Take Us Next
Adviser: Stephanie Harzewski

Jason Masiello

Psychology
Investigating the Role of Parenting Styles on Bullying Behavior and Impulsivity
Adviser: Ellen Cohn

Aliya Sarris

Political Science, Spanish, Women's and Gender Studies
An Exploration of Self-Identity in Transracial Adoptees from China
Adviser: Monica Chiu

Memorial Union Building, Room 336

Multidisciplinary Session VI

Moderator: Andrew Ferris

Christiana Donatelli

Biomedical Science
I Used the Graph: Students' Reasoning about Rate of Change and Population Growth
Adviser: Melissa Aikens

Trevor Guilmette

Katriana Kivari
Recreation Management and Policy
Increasing a Sense of Belonging in First Year Students on Outdoor Orientation Programs
Adviser: Brent Bell

Brandon Hugh

Sport Management and Leadership
Consumer Perceptions of NFL Injuries: Turf versus Grass Surface
Adviser: Zachary Scola

Eli Webber

Mechanical Engineering
Use of Nano Indentation for Determination of Local Properties in Dual Phase Steels
Adviser: Marko Knezevic

Memorial Union Building, Room 330

Outstanding Works from Communication

Moderator: Lin Zhang

Daniela Farfan

Communication
God's Favorite: Hollywood Archivists and Peddlers
Adviser: Robert Jackson

Ceili Flot

Communication
Remembering the AIDS Crisis and ACT UP: The Failures of Civic Society and Government
Adviser: Robert Jackson

Kaley Lambert

Communication, Italian Studies, Philosophy
The Almost-Feminism of "Midsommar"
Adviser: Joseph Terry

Lydia Osmer

Communication, English Teaching
Commodified Feminism of Menstruation in the Digital Age: The Feminist Rhetoric of Always and Tampax on Instagram
Adviser: Michelle Gibbons

Ashley White

Communication, Women's and Gender Studies
Analyzing the Frame of Empathy in the Black Lives Matter Movement
Adviser: Joseph Terry

Memorial Union Building, Room 332

Populism in Latin America

Adviser and Moderator: Mary Malone

Conor Hill

Political Science
Populism and Identity in Bolivia: The Effects of the Morales Presidency

Albert Jovic

Political Science
Bolivian Populism: The Rise and Fall of Evo Morales

Ginger Schoff

Political Science
Populism in Brazil

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

Poster Session I

Friday, April 21
9–10:30 a.m.
Paul College

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

ECON 774: Bachelor of Arts in Economics

Adviser: Reagan Baughman

Sarah Anderson

Economics, Information Systems and Business Analytics
Lasting Implications of Global Water Scarcity

Kelley Burzlaff

Business Administration, Economics
Can Sugar Taxes Improve Health Outcomes?

Ryan Carr

Economics
Determinants of Economic Growth in China

Andrew Cavanagh

Economics
Downfall: The Failure of the Greek Economy

Liam Centra

Economics
Foreign Direct Investment in Developing Countries

Juliet Clark

Economics
Economic Cost and Benefits of Increasing Electric Car Production

Jack Deleski

Economics
Pursuing Aggressive Anti-Trust Policies to Regulate Amazon

Ava Fitzpatrick

Economics
How Does Raising the Minimum Wage Affect Poverty and Employment?

Jennifer Hill

Economics
The Effects of Income on Health in the U.S.

Scott Jackson

Economics
Will the National Debt Slow Economic Growth?

Carter McLean

Economics, Justice Studies
Automation in America: The Future for Construction Workers

Nashra Mohammed

Economics
The Environmental and Economic Effects of Plastic

Clara Richards

Economics
The Effects of Government Programs on Homelessness in the U.S.

Liam Robinson

Economics
The Main Causes of Inflation Post-COVID

Gustavo Rodriguez

Economics
Causes of Income and Wealth Inequality in Mexico

Alisha Wannaphong

Economics, Finance
Changes in the U.S. Gender Wage Gap over Time

CJ York

Economics
The Implications of Income Taxation for Growth and Entrepreneurship

ECON 775: Bachelor of Science in Analytical Economics

Adviser: Aziz Saglam

Mohammad Alhamdan

Analytical Economics
U.S. National Debt: Impact and Consequences

Domenic DiZillo

Analytical Economics
Commercial and Industrial Loan Exposure: Great Recession vs. COVID-19

John Downey

Analytical Economics
Analysis of the Factors Affecting Violent Crime Rates in the U.S.

Elizabeth Dukas

Analytical Economics, Political Science
Effects of Climate Change on Economy

Brandon Elias

Analytical Economics
What Factors Influence Income Inequality?

Rachel Fogarty

Analytical Economics
Factors Affecting Labor Productivity

Cameron Frizzell

Analytical Economics
Economic Impact of the U.S. Gambling Industry

Mack Hanley

Analytical Economics
U.S. Economic Growth and the Carbon Dioxide Emission

Harrison Hawkins

Analytical Economics, Philosophy
Universal Basic Income and Poverty

Carter Hunt

Analytical Economics
What Makes Labor Unions Popular?

Sam Hussey

Analytical Economics
Economic Catch-up of Emerging Markets

Connor Kelly

Analytical Economics
How COVID-19 Has Changed Alcohol Use

Jared Knight

Analytical Economics
How Do Interest Rates Affect Investments?

Caroline LeBlanc

Analytical Economics
What Factors Influence Medicaid Expenditures in New Hampshire?

Jake Lindsay

Analytical Economics
Economic Recovery from COVID-19

Chuck Nystrom

Analytical Economics, Statistics
Effects of the Minimum Wage on Employment

James Spina

Analytical Economics
Technological Progress and Income Distribution

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

Poster Session II

Friday, April 21
11 a.m.–12:30 p.m.
Paul College

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

EcoGastronomy

Adviser: Dan Winans

Teagan Bowe

Ecogastronomy, Hotel and Hospitality Management
Drink Local: The Impact of Local Wineries throughout New England

Raeanne Breton

Ecogastronomy, Entrepreneurial Studies
Boston's Best: A Culinary Tourism Value Chain Tour

Madeline Bronder

Anthropology, Ecogastronomy
Do Your Taste Buds Know How to Think? The Divide of Language in the World of Wine

Caitlyn Cerasale

Ecogastronomy, Sustainable Agriculture and Food Systems
Growing Green: How DIY Hydroponics Can Introduce Sustainable Food Sources for College Students

Reshma Giji

Earth Sciences, Ecogastronomy
Pallet to Plate: The Sustainable Life of an Oyster

Julia Landcastle

Ecogastronomy, Nutrition
A Study of Food Waste: The Importance of Community Connection

Gemma Rose

Ecogastronomy, Nutrition
The Benefits and Barriers of Utilizing Local Grains in Baking

Multidisciplinary/Honors Thesis**Isaac Blanchette**

Accounting, Finance
Public Opinion of SEC's Proposal for Mandatory Climate Disclosures
Adviser: Le Emily Xu

Jackson Cleary

Accounting, Finance
Most Influential Driver of NBA Team Value
Adviser: Michael Hanlon

Clay Courtmanche

Finance
The Effect of Bitcoin's Price on Crypto Financial Technology Company Valuation
Adviser: Michael Hanlon

Alessandra Cutone

Management, Marketing
Consumers' Perceptions of Eco-Friendly Products through Social Media
Adviser: Alex LaBrecque

Katie DuBois

Accounting, Information Systems and Business Analytics
Breaking the Glass Ceiling: Do Female Partners in Public Accounting Shine?
Adviser: Md Safayat Hossain

Adam Garrity

Accounting
How Management's Response to Fraud Affects the Likelihood of Future Fraud
Adviser: Yunshil Cha

Jack Gillis

Finance, Management
Historic Returns of Gold: Is it the Best Hedge against Inflation?
Adviser: Stephen Ciccone

Edward King

Entrepreneurial Studies
Technology Supporting Sustainability in Residential Real Estate
Adviser: Ludwig Bstieler

Patricia Laws

Finance
Electronic Banking and Fintech: Changes over the Years, Disruption, and Where It Will Head in the Future
Adviser: Huimin Li

Tyler Leland

Finance, International Business and Economics
Economics of the Olympics: Criteria for a Suitable Host City
Adviser: Yin Germaschewski

Colin Liebert

Business Administration
The Search for Value for New England Skiers
Adviser: John Franklin

Logan Lopus

Information Systems and Business Analytics, Marketing
Exploring the Gender Gap in the Fields of Data Science, Technology, and Analytics Technology: Challenges and Opportunities
Adviser: Billur Akdeniz Talay

Jill Mattucci

Finance, Information Systems and Business Analytics
Cybersecurity in Hospitality and Financial Industry
Adviser: Jonathan Nash

Stephanie Menard

Hotel and Hospitality Management
Steep but Not Deep: A Critical Review of Climate Change Effects on NH Ski Areas and How They Are Positioning for the Future

Adviser: Daniel Innis

Jordan Moyer

Information Systems and Business
 Analytics, Sustainability
ESG Metric Variance and Methodology Standardization

Adviser: Jing Wang

Eric Mrozek

Accounting
Why the Global Minimum Tax Will Never Be Implemented

Adviser: John Hasseldine

Kilian O'Connell

Accounting, Information Systems and Business Analytics
Cybersecurity Breaches and Auditor Turnover

Adviser: Jonathan Nash

Katie Remeis

Accounting, Information Systems and Business Analytics
Board Gender Diversity and Cybersecurity Disclosures

Adviser: Jonathan Nash

Alex Soule

Marketing
Student Perception and Attitudes of Food Waste at Dining Halls

Adviser: Peter Lane

Tommy Stimson

Information Systems and Business Analytics
The Perceptions of Targeted Advertisements, Personalized Recommendations, and Location Tracking by Consumers

Adviser: Jing Wang

Jacqueline Veglia

Finance
Productivity on Working from Home during the Pandemic

Adviser: Zhaozhao He

Joslyn Villavicencio

Business Administration
College Student Perception of Academic and Business Ethical Misconduct

Adviser: Thomas Gruen

Whitney Wiley

Hotel and Hospitality Management
Does COVID Have an Effect on Consumer Behavior towards Vacation Rental Homes?

Adviser: Markus Schuckert

Jack Wixson

Accounting, Marketing
The Impact of Compensation Framing on Work Relationships

Adviser: Yunshil Cha

Jae Yun

Accounting, Finance
Potential Impact of the Tax Gap

Adviser: John Hasseldine

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

Oral Session I

Friday, April 21

12–1:30 p.m.

Paul College

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

Marketing Workshop Presentations

Adviser: Peter Masucci

Dillon Adamy

Mitchell Bradley

Thomas Goodwin

Madison Montgomery

Shelby Nicholson

Marketing

Krysta Mack

Management, Marketing

UNH Social Media Study: Research and Analyze the Myriad Social Media Channels Created by UNH Colleges, Departments, Clubs and Other Organizations to Determine Opportunities for Consolidation and More Efficient Online Usage

Carson Albright

Allan Comeau

Abbey Faletra

Matthew Stanieich

Marketing

Shealyn Sears

Finance, Marketing

Paul College Admissions: Research and Develop Marketing Programs Aimed at Increasing Awareness and Changing Perceptions of the College among High School Students and Their Parents in Order to Grow Future Enrollments

Hannah Antonino

Hotel and Hospitality Management,

Marketing

Bridget McMahon

Haley Rivers

Kobe Zimmer

Marketing

Jack Wixson

Accounting, Marketing

Dangles: Research, Design, and Develop Marketing Programs Aimed at Increasing Awareness of and Generating New Business for This Hampton, NH, Supplier of Ice Hockey Accessory Products

Andrew Arone

Finance, Marketing

Matteo Calvanese**Sydney Mulkern****Alyssa Norris****Mia Pike****Daniel Taylor**

Marketing

Planet Fitness: Research, Design, and Develop Marketing Programs Aimed at Expanding Awareness of and Generating Customers from Gen Z and Millennials for This Hampton, NH, Operator of a Nation-Wide Network of over 2,400 Fitness Clubs

Winsor Bean**Hayden Blood****Abigael Fillion****Shaun McKay****Kumiko McLaren****Nicholas Rainforth**

Marketing

Pedicab: Research, Design, and Develop Marketing Programs Aimed at Increasing Awareness of and Generating Support for This Durham, NH, Not-for-Profit, In-Town/City, Human-Powered Transportation Organization

Brianna Berry**Victor Gentile****Faith Limbat****Thomas McCauley****Maeve Parnell**

Marketing

Christian DiPersio

Information Systems and Business

Analytics, Marketing

Cat Trax Bike Share: Research and Design Marketing Strategies and Tactics That Will Grow Awareness of and Riders to This UNH Sustainability Program

Katie Berthasavage

Information Systems and Business

Analytics, Marketing

Brendan Kenney**Macklin Lansbury****Reid Signet****Jay Wallace**

Marketing

Noelle Newman

Management, Marketing

Plover Robes: Research, Design, and Develop Marketing Programs Aimed at Increasing Awareness of and Generating New Business for This Rye Beach, NH, Supplier of Customized Bath Robes

Carli Boodakian

Management, Marketing

Hannah Crist

Information Systems and Business

Analytics, Marketing

Thomas Keegan**Efli Shtino****Vanessa Smith**

Marketing

Samuel Walsh

Finance, Marketing

Counseling Associates: Research, Design, and Develop Marketing Programs for this Provider of Individual, Couples and Family Psychological Counseling Services, with Six Locations across the State and Based in New London, NH

Noah Bramlett**Kiera Cote****Allyson Dyac****Evan Mullings****Maggie Robinson****Andy Yang**

Marketing

Alliance for Greater Good: Design and Develop Marketing Programs Aimed at Increasing Awareness of and Volunteer Participation with this Portsmouth, NH, Non-Profit Organization That Connects Volunteers with Charitable Organizations

McKenzie Callaghan

Finance, Marketing

Tyler Lemay**Anna Pollak****Benjamin Scannell****Grace Silha**

Marketing

Durham Unitarian Universalist Fellowship: Design and Develop a Marketing Plan and Strategies to Help Grow Membership for and Participation in This Durham, NH, Liberal Religious Organization

Miguel Canizalez**Aislinn Ford****Jake Kitterman****Ryan Quill****Katelyn Richardson**

Marketing

Anna Shapiro

Management, Marketing

Nonantum Resort: Research, Design, and Develop Marketing Programs for this Historic Seaside Resort in Kennebunkport, Maine, That Will Build Awareness of and Grow Bookings for Shoulder Season Visitors

Victoria Carini**Evan MacDonald****Lea Trainor**

Marketing

Jenna Hubbard

Marketing, Women's and Gender Studies

Nolan Kirk**Brandon Langdon**

Finance, Marketing

Less Leg More Heart: Design and Develop Marketing Programs Aimed at Growing Awareness and Support for This Nashua, NH, Non-Profit Organization That Supports Amputees

Sarah Clark

James Hermanowski

Ceara Kelly

Caroline McGarry

Josh Young

Marketing

Joseph Moore

Information Systems and Business

Analytics, Marketing

Paul College Hospitality Option: Design

and Develop Marketing Programs

and Promotional Materials Aimed at

Increasing Awareness and Changing

Perceptions of the Program among High

School Students and Their Parents in Order

to Grow Enrollments

Alessandra Cutone

Management, Marketing

Brynn Lambroff

Mackenzie LeLievre

Daniel Marino

Ethan Zarak-Croke

Marketing

Roots Cafe and Catering: Research and

Design Marketing Strategies and Tactics

That Will Grow Awareness of and Drive

Business to This Family-Run Food Business

in Newmarket, NH

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

Poster Session III

Friday, April 21

1–2:30 p.m.

Paul College

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

DEI at UNH

Adviser: Jennifer Griffith

Sarah Carroll

Farryn Lepanen

Management

Leah Glidden

Management, Sustainability

Analyzing the Gender Split between UNH,

PAUL College, and Concentrations

within PAUL

Meghan Guimont

Jake Regan

Management

Catherine Swift

Information Systems and Business

Analytics, Management

Low-Income Student Experiences and

Support Systems at UNH

Alex Haynes

Finance, Management

Ciera Schwarzer

Business Administration, Marketing

Bailey Shippee

Business Administration, Entrepreneurial

Studies, Management

Difference in Resources/Opportunities

Available to Club Sport Teams versus

Varsity Teams

Bailey Shippee

Business Administration, Entrepreneurial
Studies, Management

*Exploring the Inclusivity of the FIRE Peer
Advisors Program*

Economics of Climate Change

Adviser: Robert Mohr

Sarah Anderson

Economics, Information Systems and Business
Analytics

Elise Bender

Management, Sustainability

James Hanlon

Economics, History

The New Zealand Emissions

Trading Scheme

Laura Earle

Analytical Economics

An Economic Analysis of the Regional

Greenhouse Gas Initiative (RGGI)

Aaron Eaton

Environmental Conservation and
Sustainability

McKenna LaBuz

Environmental and Resource Economics

Zack Leduc

Analytical Economics

British Columbia's Carbon Tax

Owen Miller

Economics, Philosophy

Nashra Mohammed

Economics

The Emissions Trading Scheme in the European

Union

Clara Richards

Liam Slane

Economics

Morgan Williams

Environmental and Resource Economics,
Sustainability

An Economic Analysis of California's

Cap-and-Trade Program

UNH Manchester URC Engineering Technology Day

Senior Project Presentations

Friday, April 21
9 a.m.–12 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.

Adviser: Robert Arredondo

Ian Alton

Michael Magliozzi
Electrical Engineering Technology
Theodore Bollenbach

Grant Bonczar
Daniel Engelsen
Mechanical Engineering Technology
UNHM VEX U Robotics Competition
Team UNHM#5

Chris Barley

Electrical Engineering

Cameron Klein

Benjamin Robertson

Derek Santiago

Mechanical Engineering
UNHM VEX U Robotics Competition
Team UNHM#1

Chandler Dreyfuss

Caleb VanGilder

Mechanical Engineering Technology

Malina Popa

Andrew Sanborn

Electrical Engineering Technology
UNHM VEX U Robotics Competition
Team UNHM#4

Emily Ehrmantraut

Michael Maltais

Joseph Prescott

Mechanical Engineering Technology

Leonard Gratton

Electrical Engineering Technology
UNHM VEX U Robotics Competition
Team UNHM#2

Joshua Korsak

Connor Smith

Thomas Walker

Mechanical Engineering Technology

Carlos Nunez

Electrical Engineering Technology
UNHM VEX U Robotics Competition
Team UNHM#3

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

Friday, April 21
12–5 p.m.

Murkland Hall,
Room G17

The Department of Languages, Literatures, and Cultures (LLC) hosts an undergraduate research conference comprised of oral and poster presentations.

Rain Bugado

Biology

Biology from a French Perspective

Adviser: Pramila Kolekar

Ashleigh Eaton

International Affairs, Sociology, Spanish

The Portrayal of Immigrants in

Spanish Media

Adviser: Holly Cashman

Ella Franzoni

English, Spanish

Language as Resistance: An Exploration of the Use of Spanish in Memoirs by Female Chicana Authors

Adviser: Holly Cashman

Emily Hunt

Homeland Security, Justice Studies,
Russian

Anastasia Marchuk

Physics

Runglish in the Russian-Speaking Student Community in the U.S.: Tendencies in Word Borrowing/Mixing

Adviser: Ekaterina Burvikova

Audrey Jacques

French, Sustainability

Learning French through Filmmaking

Adviser: Ileana Chirila

Alyssa Landry

German, Linguistics

Examining Verbs: The Underlying Word Order of German

Adviser: Alex Holzniekemper

Christopher Miller

French, Spanish

Linguistic Discrimination in Access to Voting Information in NH

Adviser: Holly Cashman

Clara Richards

Economics

Wine Tourism in France

Adviser: Ileana Chirila

Aliya Sarris

Political Science, Spanish, Women's and Gender Studies

BIPOC and (Somewhat) Bicultural:

Exploring the Study Abroad Experiences of Students of Color in Europe

Adviser: Holly Cashman

The Naked Arts— Creativity Exposed!

Act III

Friday, April 21
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.

Katherine Possi

Music Education

*From Voice Memo to Spotify:
Self-Expression through Music*
Adviser: Daniel Beller-McKenna

Mary Rotthoff

English

Aren't We All Curious
Adviser: Clark Knowles

Psychology Department George M. Haslerud Undergraduate Research Conference

Friday, April 21
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.

Juliette Ambs

Justice Studies, Psychology
Reading and Listening Study
Adviser: Laura Allen

Alyssa Hall

Psychology
Understanding Personality of a Coworker
Adviser: John D. Mayer

Michelina Petruzzello

Justice Studies, Psychology
*The Effects of Mental Health on Legal
Decision Making and Jury Deliberation*
Adviser: Ellen Cohn

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

Friday, April 21
1–4 p.m.
Petee 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.

Devan Burke

Social Work

*Youth Perceptions of Police at the
Manchester Police Athletic League*
Adviser: Tarkington Newman

Madison Gould

Communication Sciences and Disorders
*Assessing Conversational Overlap in a
Museum Setting*
Adviser: Jill Thorson

Myah Kerbyson

Nursing

*Nursing Students' and Recent Graduates'
Observations of Fatphobia in the Clinical
Setting*
Adviser: Kerry Nolte

Megan Knuettel

Social Work

*Influence of Mental Health and Gender
Identity on Collegiate Student-Athletes*
Adviser: Tarkington Newman

Rachel Langer

Neuroscience and Behavior

*Three Approaches to Addressing Lesioned
Tissue in Graph Theory Neuroimaging
Analyses for Individuals with Stroke*
Adviser: Amy Ramage

Kate Maimone

Social Work

The Development and Transfer of Life Skills of the Manchester Police Athletic League

Adviser: Tarkington Newman

Danielle Martineau

Biomedical Science

Effect of an Acute Bout of Low-, Moderate-, and High-Intensity Aerobic Exercise on Immediate and Delayed Fractionated Reaction Time

Adviser: Ronald Croce

Cait McAllister

Health Management and Policy

Team Resilience and Well-Being in Healthcare

Adviser: Robert McGrath

Anna Roberge

Human Development and Family Studies, Justice Studies

Parental Incarceration and Its Impacts on Juvenile Delinquency and Interventions for These Children

Adviser: Kimberly Nesbitt

Emilij Roy

Nursing

The Clinical Observations of Nursing Students and Recent Graduates Caring for LGBTQ+ People

Adviser: Kerry Nolte

Katherine Stariknok

Communication Sciences and Disorders, Spanish

Impact of Foreign Accent on Receptive Language Assessments for Bilingual Children

Adviser: Jill Thorson

Violet Sullivan

Exercise Science

Cardiorespiratory and Metabolic Responses to Low-Intensity Blood-Flow Restricted Running

Adviser: Summer Cook

Emily Waite

Exercise Science

The Effect of Post-Meal Walking Step Cadence on Time from Peak to Nadir Blood Glucose in Physically Inactive Young Women

Adviser: Michael Brian

Megan Welch

Nursing

Birth Trauma and Exercise Incontinence among Average Active Women

Advisers: Bridget Linehan, Kerry Nolte

Marcella Wondal

Social Work

Exploring Life Skill Development and Transfer of Youth Experiencing Homelessness

Advisers: Tarkington Newman, Sherri Simmons-Horton

Honors English Undergraduate Research Conference

Friday, April 21**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.

Brooklyn Pratt

English/Journalism

Mosaic in the Mirror

Adviser: Jaed Coffin

Kevin Shegani

English Teaching

Barriers to English Education in the People's Republic of China

Adviser: Alecia Magnifico

Daisy Young

English, Sustainability

How Broken Mothers Affect a Family

Adviser: Sue Hertz

Philosophy Department Undergraduate Research Conference

Friday, April 21**2–8 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.

Alex Baier*Powerlessness as Wielded by Authoritarian Regimes*

Adviser: Laure Barillas

Emily Buehne

English, Philosophy

An Inquiry into the Self-Objectification of Women

Adviser: Laure Barillas

Kaley Lambert

Communication, Italian Studies, Philosophy

Pitiful Prisons: A Critical Assessment of the United States Prison System and Call for Criminal Justice Overhaul

Adviser: Subrena Smith

Kieran Newcomb

Philosophy

The Use of Artificial Intelligence in Judicial Deliberation

Adviser: Nicholas Smith

Francis Perier

Philosophy

What is the Best Metaphysics of Race?

Adviser: Subrena Smith

Andre Provencal

Philosophy

Morality and Meaning

Adviser: Paul McNamara

Paul Salek

Justice Studies, Philosophy
*Disparities and Opportunities to Study
 Race in Education*
 Adviser: Subrena Smith

Sienna Shanelaris

Philosophy
*Explorations in Eastern Philosophy
 through Bruce Lee*
 Adviser: Timm Triplett

Esther White

Philosophy
*How Being Perceived Forces the
 Performance of Gender*
 Adviser: Laure Barillas

Jillian Zube

Philosophy, Political Science
A Lockian Perspective on Prison Reform
 Adviser: Matthew Dowd

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

**Friday, April 21
 6–8 p.m.**

**Paul Creative Arts Center,
 Museum of Art**

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

Julie LaRue

Art: Studio Art
*ConWoman: Pro(tagonist)s and
 Con(vention)s*
 Adviser: Julee Holcombe

Molly Maynard

Fine Arts
Removed from Time: A Poetic Experience
 Adviser: Julee Holcombe

Maddie Pender

Art: Studio Art
Recollecting Girlhood
 Adviser: Brian Chu

Olivia Williams

Fine Arts
The Nature of Portraiture
 Adviser: Benjamin Cariens

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

Poster Presentations & Oral Presentations

**Saturday, April 22
 8 a.m.–3 p.m.
 Paul College**

FIRE is an integrated, team-based, and game-like experience for first-year Paul College students. Through a series of challenges, students develop business plans that are presented at this year-end finale, which features poster and oral presentations on students' business plans and concludes with a "Grand Challenge Round."

Grand Challenge: Climate Action

Team: Nasty 19

Adviser: Reilly Landry

Ritu Agrawal
 Jake Apgar
 Laura Carpenito
 Matthew D'Antuono
 Nicole Deneau
 Karen Kapuscinski
 Owen Kennedy
 Ellacoya Kunz
 Bentley Lane
 Amelia Magay
 Max McNeeley
 John O'Sullivan
 Benjamin Reiff
 Pakeezah Tariq
 Business Administration
 Andrew Claus
 Adam Conforti
 Ethan Coutu
 Richard Guarino
 Nolan Otto
 Undeclared
 Alexa Stuka
 Analytical Economics

Team: Category 5

Adviser: Ada DiYenno

Evan Baron
 Undeclared
 Alex Barzowskas
 Audrey Buckley
 Brecken Calcari
 Alexander Christen
 Ben Corris
 Christopher Drapeau
 Owen Federowicz
 Julia Fichera
 Avery Greene
 Joe Grindrod
 Sam Labrie
 Daniel Luscombe
 Brady Madigan
 Victoria McIntyre
 James Mourad
 Aidan Ormsbee
 Omar Skiba
 Katherine Soucie
 Amy Staunton
 Lexi Veglia
 Business Administration

Team: Brendan's Barbarians

Adviser: Brendan Kelly

Malli Begin
 Tyler Chربولowski
 Jake Dooley
 Peter Duriga
 Anna Gerhard
 Hannah Kelley
 Robert Labarre
 Andrew Lage
 Stamatis Maschas
 Daniel Pedersen
 Madeline Proulx
 Allie Shai
 Savannah Shannon
 Rhea Shirodkar
 Sedrik Spaulding
 Zoe Tewksbury
 Nicholas Tonderys
 Business Administration
 Derick Christensen
 Ryder Downes
 Undeclared

Team: FIRE NATION

Adviser: OJ Surdam

Molly Bowers
 Brooke Rose
 Undeclared
 Aiden Brenner
 Carter Brown
 Sara Brown
 Kayla Chacon
 Dalton Clifford
 Josh Fillion
 Hannah Hill
 Kenneth Lawless
 Henri Lion-Gardiner
 Evan Madigan
 Tyler Miller
 David Pacella
 Owen Petretta
 Sam Rizzo
 William Roberts
 Julia Shearstone
 Margaret Starr
 Nathan Wilson
 Business Administration
 Anna Steele
 Economics

Team: What's 9+10?

Adviser: David Moss

Cameron Brown
 Ryan Callahan
 Alexa Chausse
 Dylan Collins
 Aidan Conrad
 Kaleigh Davis
 Rafael Delgado
 Owen Dewey
 Ava Hills
 Jason Martarano
 Elizabeth McLachlan
 Daniel Moore
 Parker Savoy
 Patrick Stevens
 Business Administration
 Jack Castineiras
 Undeclared
 Lina La
 Finance
 Brett Schultz
 Entrepreneurial Studies, Sustainability
 Melanie Yelle
 Analytical Economics

Team: The S1mps0ns

Adviser: Kyle Simpson

John Choueiri
 Samantha Chuslo
 Matthew Devine
 James Fahey
 Taig Healy
 Keegan Humason
 Cali Lowery
 Quinn Melim
 Ryan Mercier
 Nicolas Merrill
 Shea Mulkern
 Maddie Nerden
 Sam Opper
 Lauren Orozco
 Owen Pierce
 Ainsly Schug
 Emma Skafas
 Rory Skillin-Lanou
 Jeff Stanley
 Mia Ward
 Business Administration
 Sophia Johnson
 Economics

Grand Challenge: Education**Team: Business Baddies**

Adviser: McKenna Murphy

Erys Abraham
 Business Administration
 Sadie Armstrong
 Natasha Bamford
 Samuel Becker
 Riley Bishop
 Anthony Gaiero
 Larkin Hefner
 Jessica King
 Keira Lentz
 Alexandra Mahoney
 Erin Maloney
 Julia Riley
 Marissa Ross
 Megan Smith
 Luke Thomas
 Hotel and Hospitality Management
 Marcus DiBello
 Meghan Schneiders
 Brady Talerico
 Undeclared

Team: 22 Jump Street

Adviser: Evan Mullings

Chiara Altorfer
 Carter Bransfield
 Ian Chmielinski
 Ethan Clay-Storm
 Brett Evans
 Samuel Farrington
 Anthony Harb
 Quinn Lewis
 Caitlin Mason
 Joey Olans Venditti
 Connor Schultz
 Samantha Williams
 Business Administration
 Julia Gronda
 Dylan Kenny
 Emily Kobrenski
 Ryan Moeckel
 Undeclared
 Hannah Rodgers
 Economics
 Andrew Turkington
 Analytical Economics
 Caden Zalenski
 Finance

Team: Buzzer Peter

Adviser: Tyler Wilbur

Hailey Anderson
 Tyler Baker
 Samantha Bhacka
 Alex Boisvert
 Owen Christopher
 Kyle Coluci
 Robert Croteau
 Maggie Daniels
 David Ditata
 Kaleigh Folsom
 Nicholas Gribbins
 Sidney Huynh
 Jake Lacoche
 Kevin McCorry
 Colleen McGee
 Andrew Miano
 Dori Theos
 Anna Thompson
 Business Administration
 Hugh Lynch
 Undeclared

Team: Mad Rads

Adviser: Radames Gonzalez

Muizz Awan
 Benjamin Black
 Madison Boyer
 Hayden Brenner
 Sean Caligiuri
 Robert D'Eon
 Grady Fern
 Adam Freiburger
 Amanda Greene
 Maxwell Harwell
 Rachel Hazelwood
 Brianna Janz
 Aiden McMahon
 Mikayla Passage
 Damon Smead
 Ryan Vienneau
 Collin Whitney
 Business Administration
 Shevis Hankins
 Skye Loto
 Analytical Economics
 Lindsey Kriendler
 Undeclared

Team: Paul of Duty

Adviser: Emma Pixley

Brett Boucher
 Andrew Breen
 Dariana Brissette
 Jayden Collins
 Justin Deshaies
 Nate Dickinson
 Samuel Dufoe
 Sadie Dyer
 Ryan King
 Luke Loeffler
 Thomas MacDougall
 Kyran Maher
 Mitchell McQuillan
 Promise Oporum
 Bryce Parker
 Kenny Sinofsky
 Gavin Smith
 Kyle Spear
 Connor Still
 Noah Tharaldson
 Serena Volk
 Kalei Wallace
 Undeclared

Grand Challenge: Hunger**Team: Molly's Minions**

Adviser: Molly Caplette

Reese Ahearn
 Max Jimenez
 Noella Kennedy
 Mia Kittredge
 Haley LeMoine
 Ryan McNeil
 Jeff Ng
 Ella Novak
 Emily Paltauf
 Tyler Paradis
 Andrew Pelkey
 Torin Piasecki
 Patrick Roche
 Christina Sanchez
 Kristaps Skrastins
 Brady Spradling
 Lily Sturdevant
 Business Administration
 Matthew Kinney
 Undeclared

Team: Sweet 16

Adviser: Kaitlyn Silva

Kevin Baker
 Nate Seitz
 Connor Stevens
 Economics
 Sutton Boothroyd
 John Casey
 Lauren Dee
 Kyle Egan
 Steven Horn
 Daniel Pitcoff
 Peyton Saltmarsh
 Leah Sprado
 Shayna White
 Undeclared
 Bobby Foltz
 Ellie Hornkohl
 Ella Longacre
 Benjamin Smith
 Business Administration
 Zack Matson
 Liam McGovern
 Analytical Economics

Team: Uno Attack

Adviser: Anna Kovacs

Joey Baker
 Adam Lydick
 Chloe Miller
 Caden Perry
 Undeclared
 Avery Consigli
 Brady Ford
 Tilde Kandell
 Evan Mandrus
 Matthew Miclette
 Brandyn Nault
 Bryce Petersen
 William Prime
 Carly Quill
 Hannah Ritchie
 Megan Silva
 Nolan Smagula
 Shane Tilton
 Nicholas Valcourt
 Logan Vorias
 Caitlin Wilcox
 Business Administration

Team: Better Call Paul

Adviser: Chloe DeLuca

Sofia Balan
 Arthur Stanley
 Undeclared
 Jared Bistany
 Delaney Broomfield
 Madelynn Dyjak
 Derin Ilginer
 Camden MacHardy
 Lianna Martinez
 Jacob Mello
 David Morison
 John Murphy
 Matthew Nowak
 Anakin Paige
 Clara Pavuk
 Nicholas Thibault
 Alexis Tuten
 Jordan Vashaw
 Gavin Wallis
 Bryce Winter
 Business Administration
 Jack Cennamo
 Economics
 Dalton Lawrence
 Analytical Economics

Team: FIR3 Fighters

Adviser: Tiffany Marrotte

Shane Burton
 Grace Charwat
 Millie Fredricks
 Chris Johnson
 Dalton Orino
 Kaitlyn Patrick
 Ashlyn Rago
 Holly Sullivan
 Myles Thomason
 Business Administration
 Lawson Carroll
 Will Dadasis
 Kayla Doherty
 Jake Garrity
 Ryan Gillis
 Evan Leffland
 Daniel McCarty
 Delana Mooney
 Tyler Shepersky
 Steven Valadakis
 Undeclared
 Peyton Strickland
 Finance

Grand Challenge: Infrastructure**Team: Gavin's Goonz**

Adviser: Gavin Blonda

Tamar Almasian
 Taylor Brown
 Grady Chase
 Will Harvey
 Owen Leary
 Sean Lund
 Karina Malachowski
 Alexander Maly
 Dylan Mui
 Kirsty O'Grady
 TJ O'Keefe
 Michael Pelkey
 Justin Russell
 Jack Ryan
 Matthew Sjogren
 Kacie Sonnenberg
 Brooke Thurston
 Jack Toomey
 Andrew Williams
 Business Administration

Team: FIR3 WORKS

Adviser: Alison Durand

Logan Barnhill
 Andrew Bushnell
 Justin Carriero
 Ava Lorentz
 Max Marois
 Trevor Masse
 Zack Schmitz
 Caroline Sheehan
 Michael Van Keuren
 Undeclared
 Lacy Davis
 Gage Daw
 Kendall Donovan
 Dylan Drozeck
 Isabelle Ducharme
 Bella Eshoo
 Laura Holmansky
 Luke Patrick
 Stephen Sauerbrey
 Harrison Spalthoff
 Aidan White
 Business Administration

Team: Flamin' 15

Adviser: Ayrika West

William Bassett
 Ayman Djar
 Thomas Farrell
 Ryan Hannon
 Benjamin Kalman
 Alexis Lane
 Alexander Lanoff
 Keegan Mahon
 Wesley Joseph McGough
 Ty Mitchell
 Jackson Nardone
 Brooke Nydam
 Michael Peppino
 Luke Pucillo
 Colin Rage
 Jackson Rogers
 Charlotte Selmer
 JC Simmons
 John Sullivan
 Undeclared
 Tyler Brunetti
 Business Administration

Team: F17efighters

Adviser: Andrew Gardner

Jaylie Borsello
 Madeleine Brown
 Brady Crowe
 Jonathan Fantasia
 Sam Francis
 Broderick Hamilton
 Joel Hinrichs
 Alex Mason
 Connor Meehan
 Jeff Melanson
 Audrey Mirak
 Mina Morcos
 Riley Morris
 Shawn Parker
 Tricia Ryan
 Andrew Schweizer
 Evan Tremblay
 Kyle Walker
 Business Administration
 Matthew Quan
 Undeclared

Team: Footlong

Adviser: Abby Crowther

Brendan Cody
 Ariana Contessi
 Marco DeSimone
 Travis Kierstead
 Lauren Kolman
 Business Administration
 Zoe Grammas
 Jack Halloran
 Riley Himes
 Samuel Kouchalacos
 Abigail Linstad
 Nicole Mann
 Jacob McCarthy
 Dorothy O'Brien
 Noah Pearlman
 Julia Pitts
 Ryan Rech
 Sean Russell
 Pete Sanford
 Undeclared

Grand Challenge: Poverty**Team: Like Mike**

Adviser: Ryan O'Grady

Cassie Alexopoulos
 Emily Allen
 Madelyn Atwood
 Andrew Barry
 Kyleigh Bonneau
 Henry Carpenito
 Jake Cherubini
 Jack Conner
 Spencer Cutt
 Ryan Edwards
 Billy Hanley
 Hedda Martelleur
 Patrick McGonagle
 Sofia Menyalkin
 Andy Mousin
 Mark Mustone
 Andrew Staniec
 Sydney Szmyt
 Zachary Temertzoglou
 Dylan Torma
 Eve Watson
 Business Administration
 Jackson Stone
 Undeclared

Team: 4 The Queen

Adviser: Mary Condon

Tori Amarillo
 Anna Aprilliano
 Willa-Maya Dowling
 Khadija Haq
 Liam Hartwig
 Molly Mikkonen
 Liam Ouellette
 Quillan Reilly
 Economics
 William Bowe
 Jayme Carr
 Ariana DiGregorio
 Drew Dickson
 Cohan Drainville
 Caleb Greene
 Jesus La Paz
 Timothy Mitus
 Kyle Santangelo
 Mark Smith
 Paul Sullivan
 Tyler Truesdell
 Analytical Economics
 Landis Nadeau
 Undeclared

Team: Business as Usual

Adviser: Carey Foss

Owen Bradlee
 Sophia Bruzgis
 Samuel Coffin
 Ava Correnti
 Ella Couture
 A.J. DeAngelis
 Ava Deaza-Roed
 Julia Gentilucci
 Lindsey Hepburn
 Timothy Kelly
 Andrew Lizotte
 Luke Longua
 Dylan McGarr
 Natalie Mellina
 David Meyer
 Barrett Urquhart
 Brandon Wood
 Business Administration
 Nicholas Giordano
 Jillian Pacheco
 Undeclared

Team: Drip 2 Hard

Adviser: Mary Van Ness Uitti

Ryan Branson
 Amanda Clifford
 Avery DePodesta
 Ian Dowgiert
 Declan Fluharty
 Zach Fredericks
 Sarah Hunton
 Natalie Karlson
 Spencer Kenawell
 Sophia Manning
 Sean Quinn
 Richard Shahtanian
 Stephen Thorne
 Will Tracey
 Kolbe Vachon
 Mackenzie Young
 Business Administration
 Bodey Reed
 Brennan Sinoway
 Undeclared
 Samuel Rumelhart
 Hotel and Hospitality Management

Team: Echo

Adviser: Alexa Gillett

Haley Brodbeck
 Thomas Chase
 Brayden Cheung
 Andrew Clark-Hodgkins
 David Farris
 Keller Griffin
 Dean Haggett
 Joshua Hammond
 Emily Hedman
 Isabela Johnson
 Sean McConaghy
 Nicole McKinnon
 Paige Napolitano
 Jacob Overton
 Connor Pardue
 Ally Parkinson
 Madilyn Schartner
 Ethan Smits
 Business Administration
 Coleman Keady
 Madison Parent
 Undeclared
 Adam Young
 Hotel and Hospitality Management

COLSA Undergraduate Research Conference

Oral Presentations

Saturday, April 22
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.

Samuel Comeau

Marine, Estuarine and Freshwater Biology
Shallow Water Baitfish Assemblages in New Hampshire's Coastal and Estuarine Waters

Advisers: Aliya Caldwell, Nathan Furey

Isabelle Lopez

Wildlife and Conservation Biology
Evaluating the Use of Unmanned Aerial Systems to Detect and Monitor Beech Bark Disease in New England Forests

Advisers: Russell Congalton,
 Benjamin Fraser

Jonathan Moehlmann

Biomedical Science
*Potential Resistance to Glyphosate (Roundup®) in New England Agriculture and Determining DNA Sequence Variations Conferring Glyphosate Resistance in *Chenopodium ficifolium**

Adviser: Thomas Davis

Emily Pratt

Biochemistry, Molecular and Cellular Biology
Targeting STAT3 in TNBC Using GSK3β and Integrin Inhibitors

Adviser: Sarah Walker

COLSA Undergraduate Research Conference

Poster Presentations

Saturday, April 22
10:10–12 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.

Heather Adams

Alisa Ivantsova
 Biomedical Science

Bryce Hannon

Genetics
Targeting PRMT5 in Neuroendocrine Skin Cancer

Adviser: Jingwei Cheng

Katheryn Agostini

Economics, Sustainable Agriculture and Food Systems

*Functional Response of Green Lacewing, *Chrysoperla* spp. (Neuroptera: Chrysopidae) under Simulated Winter High Tunnel Conditions*

Adviser: Anna Wallingford

Somkene Alakwe

Biochemistry, Molecular and Cellular Biology
Bioreactor-Based Production and Purification of pDNA and Protein for Materials Science Applications

Adviser: Nate Oldenhuis

Kelsey Alimandi

Biology
Haily Knapp
Hannah Manning
 Biomedical Science
Establishing Behavioral and Neurobiological Markers Associated with Ethanol Vulnerable Phenotype

Adviser: Sergios Charntikov

Alexa Aubrey

Genetics
Investigation of Extra Pair Paternity in Early Arriving Male Prairie Warblers
 Adviser: Adrienne Kovach

Tessa Baillargeon

Biomedical Science
Songbird Genomic Diversity Characterization Following Mass Mortality Event
 Adviser: David Needle

Elizabeth Balet

Wildlife and Conservation Biology
Bioavailability of Methionine Prototype
 Adviser: Nancy Whitehouse

Cameron Banks

Biomedical Science
Induction of Class Switching in Waldenström Macroglobulinemia Cells
 Adviser: Sherine ElSawa

Casey Baumann

Genetics

Olivia Smith

Biology
*Correcting a Salt Stress Phenotype in *Arabidopsis thaliana* Using Hybrid Phosphatase Transgenes*
 Adviser: Estelle Hrabak

Quinn Beek

Biochemistry, Molecular and Cellular Biology
Drug Research in Inhibiting BCL6 in Ovarian Cancer
 Adviser: Sarah Walker

Nicole Benjamin

Genetics
CRISPR Mutants to Identify Function of a Pollen Expressed Protein S-acyltransferase Gene
 Adviser: Estelle Hrabak

Joshua Berthiaume

Biomedical Science
*Bromodomain Proteins Are Important Epigenetic Regulators in the Parasite *Toxoplasma gondii**
 Adviser: Vicki Jeffers

Dina Bicja

Neuroscience and Behavior
Regulation of Postnatal Cortical Development by Neuronal Primary Cilia
 Adviser: Xuanmao Chen

Liam Bonyman

Biology
Abigail Ferreira
 Neuroscience and Behavior
The Effects of Cyanobacteria Concentrations on Aerosol Production
 Adviser: Amanda McQuaid

Luke Botticelli

Biochemistry, Molecular and Cellular Biology
The Embryonic Stem Cell Complexome and Epichaperome
 Adviser: Feixia Chu

Benjamin Boulton

Biomedical Science
Relating Fiber-Rich Foods and Physical Activity Level with Gastrointestinal Symptoms in Hispanic/Latino Adults Residing in New Hampshire
 Adviser: Maria Carlota Dao

Olivia Boyan

Jocelyn Brierley
Alex Zager
 Zoology
Characteristics of Moose Vocalizations
 Adviser: Laura Kloepper

Eleanor Braun

Sustainable Agriculture and Food Systems
The Prevalence and Impact of Dairy/Beef Crosses on Cattle Producers in New Hampshire and Perspectives of Stakeholders
 Adviser: Andrew Conroy

Allison Carl

Biochemistry, Molecular and Cellular Biology
Promotion of Cell Proliferation under Hypoxia in Waldenström macroglobulinemia (WM)
 Adviser: Sherine Elsawa

Austin Castrucci

Marine, Estuarine and Freshwater Biology
Extracting Sedimentary Core Samples to Analyze Cyanobacteria Pigments and Toxins from Norway Pond in Hancock, NH
 Advisers: James Haney, Amanda McQuaid

Claire Christopher

Genetics
Investigating the Function of Protein Acyl Transferases Using CRISPR-Cas9 to Create Null Mutants
 Adviser: Estelle Hrabak

Chris Clark

Biochemistry, Molecular and Cellular Biology
Testing Different BTK Inhibitors in Waldenström macroglobulinemia (WM)
 Adviser: Sherine Elsawa

Nicholas Clarke

Nutrition
Cross-Sector Assessment of Multi-Level Barriers to Nutrition Access
 Adviser: Maria Carlota Dao

Qiayra Classen Randolph

Biology
*Frog-Eating Midges? Predation of Wood Frog Eggs (*Lithobates sylvaticus*) by Chironomid Midges (Diptera: Chironomidae)*
 Advisers: Jennifer Purrenhage, David Steinberg

Piper Cobak

Environmental Sciences
Impacts of Rising Sea Levels in Boston's Marginalized Communities
 Adviser: Mary Stampone

Isabella Collamati

Wildlife and Conservation Biology
*Effects of Aging on the Reproductive Success of Female Saltmarsh Sparrows (*Ammodramus caudatus*)*
 Adviser: Adrienne Kovach

Samuel Comeau

Marine, Estuarine and Freshwater Biology
Shallow Water Baitfish Assemblages in New Hampshire's Coastal and Estuarine Waters
 Advisers: Aliya Caldwell, Nathan Furey

Amelia Cote

Animal Science
*Cetaceans and the Pathology Associated with Migrating *Nasitrema* sp.*
 Adviser: Colleen Monahan

Josie Dardinski

Marine, Estuarine and Freshwater Biology, Spanish
Rugosity and Diversity of Fish Species in Florida Keys
 Adviser: Jennifer Dijkstra

Tori Denovelli

Neuroscience and Behavior
Cognitive Control Brain Network Integrity and Language in Post-Stroke Aphasia
 Adviser: Amy Ramage

Samantha DiNatale

Environmental Conservation and Sustainability, History
Nimiipúu Spatio-Temporalities of Water and Fish
 Adviser: Teresa Cohn

Christiana Donatelli

Biomedical Science
I Used the Graph: Students' Reasoning about Rate of Change and Population Growth
 Adviser: Melissa Aikens

Daisha Drake

Biomedical Science
Investigation of the Relationship between Human Neutrophil Peptide 1 (HNP-1) and Gut Microbiome Alpha Diversity in a Population of NH Bhutanese Refugee Adults with Glycemic Impairment
 Adviser: Maria Carlota Dao

Amelia Duca

Biomedical Science
*Food Availability Impacts Aggression in the Common Tern (*Sterna hirundo*) in a Gulf of Maine Breeding Colony*
 Advisers: Aliya Caldwell, Elizabeth Craig

Michaela Edwards

Animal Science, Marine, Estuarine and Freshwater Biology
*The Gape Between: Analysing the Valve-Gaping Behavior of Eastern Oysters (*Crassostrea virginica*) as an Anti-Predatory Response*
 Adviser: Brittany Jellison

Keegan Eveland

Zoology

The Soundscape of Dense Bat Swarms: Differences Based on Location within the Group

Adviser: Laura Kloepper

Holly Farrell

Biomedical Science

Fisher (Pekania pennanti) Population Diversity in New England, New York, and California

Adviser: David Needle

Mary Feranda

Biomedical Science

Developing Honeybee Diagnostics at New Hampshire Veterinary Diagnostics Laboratory: Successes and Challenges

Adviser: Colleen Monahan

Grace Finch

Animal Science

Evaluating the Difference in Growth of Raising Katahdin Lambs vs. Dorper X Katahdin Lambs

Adviser: Peter Erickson

Grace Finch

Animal Science

Methionine Prototype Trial Using the Area under the Curve Method

Adviser: Nancy Whitehouse

Robert Fletcher**Katherine Veronneau**

Biochemistry, Molecular and Cellular Biology

Marissa Paine

Biomedical Science

Investigating the Roles of the TRRAP and BRD8 Proteins in Merkel Cell Carcinoma Oncogenicity

Adviser: Jingwei Cheng

Sam Foley

Genetics

Screening Ocean Samples Using PCR and qPCR Techniques to Determine the Presence of Dermo and MSX Parasites over Time

Adviser: Elizabeth Harvey

Abigail Forcier

Environmental Sciences, Sustainability

Tucker Nugent

Wildlife and Conservation Biology Crown Plasticity of Open Growth Conifer and Deciduous Trees

Adviser: Scott Ollinger

Ari Giewat

Marine, Estuarine and Freshwater Biology

Does Lake Browning Affect the Aerosolization of Cyanobacteria?

Advisers: James Haney, Amanda McQuaid

Maddalena Glass**Charlotte Grippio**

Marine, Estuarine and Freshwater Biology

The Effects of Increasing Ocean pH on Mytilus edulis in the Gulf of Maine

Adviser: Stephen Jones

Marley Gonsalves

Marine, Estuarine and Freshwater Biology, Sustainability

Effects of HHQ on Emiliana Huxleyi at Low Nutrient Concentrations

Adviser: Elizabeth Harvey

Ryan Gotthardt

Biology

Evaluation of the Interface of Interaction between Photoreceptor PDE6 and Its Regulatory Subunit

Adviser: Rick Cote

Shae Granese

Animal Science

Comparing USALysine and LysiGEM Extend, Two Rumen-Protected AAs

Adviser: Nancy Whitehouse

Jack Hamilton

Marine, Estuarine and Freshwater Biology

Describing Call Structure of a Nesting American Crocodile (Crocodylus acutus) on Barro Colorado Island, Panama

Adviser: Michelle Fournet

Katherine Harpster

Neuroscience and Behavior

A Closer Look into Exploring Misinformation through a Twitter Simulation

Advisers: Laura Allen, Sarah Creer

Jackie Harris

Earth Sciences, Women's and Gender Studies

Plastic Storage in River Sediments across an Urbanization Gradient in the Ipswich Watershed in Massachusetts

Adviser: Wilfred Wollheim

Margaret Hayes

Animal Science

Skunk Adenovirus-1 Surveillance in Mammals from Maine, USA

Adviser: David Needle

Delaney Hayward

Biomedical Science

Canine Surgical Biopsy Submissions to the New Hampshire Veterinary Diagnostic Laboratory (2018-2019), with an Emphasis on Cutaneous Neoplasia

Adviser: Colleen Monahan

Brooke Healy

Wildlife and Conservation Biology

Determining Nesting Locations of Saltmarsh Sparrows in Tidal Marshes within New Hampshire

Adviser: Adrienne Kovach

Carrie Hill

Biology

How Do We Make TEP in the Lab?

Adviser: Elizabeth Harvey

Aaron Hoag

Sustainable Agriculture and Food Systems

Digitizing Historical Bee Specimens: Utilizing Photomacrography and Confocal Microscopy to Visualize Theodore B. Mitchell's Colletidae Collection

Adviser: István Mikó

Ellie Hulit

Genetics

Investigating the Effects of Chitosan Products on the Growth of Beneficial Microbes

Adviser: Anissa Poleatewich

Em Irvine

Zoology

Seasonal Variations in Zooplankton Populations in a New Hampshire Pond

Adviser: István Mikó

Ayden Jacobs

Wildlife and Conservation Biology
Effect of Sediment Deposition on Root Biomass

Adviser: Gregg Moore

Ellianna Jordan

Biomedical Science
*Evaluating Taste Preferences in Dairy Calves When Offered the Brown Seaweed *Ascophyllum Nodosum**

Adviser: Andre Brito

John Lamond

Environmental Conservation and Sustainability

Ranae Reardon
Neuroscience and Behavior
Environmental Factors Driving Aerosol Production of Cyanobacteria

Advisers: James Haney, Amanda McQuaid

Rachel Langer

Neuroscience and Behavior
Three Approaches to Addressing Lesioned Tissue in Graph Theory Neuroimaging Analyses for Individuals with Stroke

Adviser: Amy Ramage

Michael Lawson

Biochemistry, Molecular and Cellular Biology

Targeting STAT3 and NF- κ B in Triple Negative Breast Cancer

Adviser: Sarah Walker

Ciana Lazu

Biology
*The Effects of Lalrise Start SC on Growth of *Chenopodium ficifolium* under Nutrient Depleted Conditions*

Adviser: Anissa Poleatewich

Abby Lebsack

Animal Science
Regional Population Assessment of Eastern Moose Using Fecal Parasites and Microbiome

Adviser: David Needle

Nia Lessard

Nutrition
Health Risk and Self-Reported Stress and Eating Habits in First-Year Students

Adviser: Jesse Stabile Morrell

Rachel Lewis

Marine, Estuarine and Freshwater Biology
Investigating the Relationship between Sea Ice Extent and Bearded Seal Breeding Phenology in the Alaskan Arctic

Adviser: Michelle Fournet

Rachel Lewis

Marine, Estuarine and Freshwater Biology

Corinne Richard

Earth Sciences

Cassidy Stadtfeld
Environmental Conservation and Sustainability, Marine, Estuarine and Freshwater Biology
Response of Symbiodiniaceae to a Bacterially Produced Compound
Advisers: Elizabeth Harvey, Hannah Reich

Jaxson Libby

Biochemistry, Molecular and Cellular Biology

Investigation of Mechanical Regulation on STAT3 Activity

Advisers: Linqing Li, Sarah Walker

Isabelle Lopez

Wildlife and Conservation Biology
Evaluating the Use of Unmanned Aerial Systems to Detect and Monitor Beech Bark Disease in New England Forests
Advisers: Russell Congalton, Benjamin Fraser

Ella Lukacz

Sustainable Agriculture and Food Systems
*Evaluating Vase Life and Marketability of Cold-Hardy *Hydrangea* Cultivars for Cut Flower Production in New Hampshire*
Adviser: Rebecca Sideman

Clara Manley

Animal Science
Gut Microbiome of Vermont Moose
Adviser: David Needle

Santino Marchesano

Sustainable Agriculture and Food Systems
*Morphological Differences in Seta across *Andrena* Bees*

Advisers: István Mikó, Anna Wallingford

Amanda Marsden

Biomedical Science
*Survey for Pacheco's Disease Virus (*Psittacine herpesvirus-1*) in Passerine Birds from New Jersey*
Adviser: David Needle

Zach Marti

Environmental Sciences
How Topography Affects the Recovery of Vegetation after a Major Forest Fire Burn in the Western U.S.

Adviser: Michael Palace

Sae Matsumoto

Nutrition
Development of a Needs Assessment to Understand the Health Status and Nutrition Literacy of the NH WIC Program Staff
Adviser: Noereem Mena

Maryann McCahill

Biomedical Science
Optimization of Electrochemiluminescence Assay to Measure Hunger and Satiety Hormones in Human Plasma
Adviser: Maria Carlota Dao

TingTing McGovern

Neuroscience and Behavior
Helping Behavior in Pair-Bonded Rats Mitigates Corticosterone Levels
Adviser: Brett Gibson

Jonathan Moehlmann

Biomedical Science
*Potential Resistance to Glyphosate (Roundup®) in New England Agriculture and Determining DNA Sequence Variations Conferring Glyphosate Resistance in *Chenopodium ficifolium**
Adviser: Thomas Davis

Heather Nelson

Zoology

Mark Troiani

Wildlife and Conservation Biology
*Seasonal Migration in Red-Backed Salamanders (*Plethodon cinereus*)*
Advisers: Jennifer Purrenhage, Michael Simmons, David Steinberg

Sarah Nicholls

Biochemistry, Molecular and Cellular Biology
Using Spatial Transcriptomics to Understand Renal Function in Desert Rodents
 Adviser: Matthew MacManes

Luke Nugent

Forest Technology
A Cost-Benefit Analysis of Shelter Wood Silviculture and Solar Panel Lease Payments for a 30-Acre Tract of Land in New Hampshire
 Adviser: Ranjit Bawa

Robert Pease

Sustainable Agriculture and Food Systems
The Effects of Manipulating Cover Crop Row Orientation on Light Interception, Soil Moisture, and Weed Abundance
 Adviser: Richard Smith

Quinn Poole

Biochemistry, Molecular and Cellular Biology
Dairy Barn to Lab Bench: Imaging Ovaries to Analyzing Cell Function
 Advisers: Dean Elder, Paul Tsang

Emily Pratt

Biochemistry, Molecular and Cellular Biology
Targeting STAT3 in TNBC Using GSK3 β and Integrin Inhibitors
 Adviser: Sarah Walker

Evelyn Proctor

Biochemistry, Molecular and Cellular Biology, Justice Studies
ATR Dependence in Merkel Cell Carcinoma
 Adviser: Jingwei Cheng

Jackie Robidoux

Zoology
The Post-mortem Comparison of the Cutaneous Microbiome of Sarcoptic Mange Infected and Unaffected Red Foxes
 Adviser: David Needle

Torin Scalora

Environmental Sciences
Dispersing Microbial Communities Increases Variability in Methane and Carbon Dioxide Fluxes in Arctic Sweden
 Advisers: Jessica Ernakovich, Hannah Holland-Moritz

Matt Scott

Marine, Estuarine and Freshwater Biology
Modeling the Impacts of an Invasive Streamside Plant on the Habitat Quality for Brook Trout
 Adviser: Nathan Furey

Alexandria Sheppard

Biochemistry, Molecular and Cellular Biology
Expression and Purification of an Antifreeze Protein from a Broadleaf Desert Shrub
 Adviser: Krisztina Varga

Mikayla Shubert

Wildlife and Conservation Biology
Deer in Infrared Lights: An Analysis of Deer Detection Rates in Relation to Roadways in Southern New Hampshire
 Adviser: Rem Moll

Peter Tansey

Environmental Sciences
Estimating Alaskan Roadway Infrastructure Cost Due to Permafrost Degradation and Ground Subsidence
 Adviser: Ranjit Bawa

Jocelyn Therrien

Nutrition
Exploring the Prevalence, Safety, and Efficacy of Blenderized Tube Feeding
 Adviser: Maggie Dylewski Begis

Chris Tilton

Neuroscience and Behavior
The Neural Structures Involved in Human Swallowing: A Meta-Analysis
 Adviser: Donald Robin

Grace Tomann

Biology
Characterization of the Effect of GLI on Hematopoiesis
 Adviser: Sherine Elsway

Lauren Vaccaro

Biology
Bacterial Species Associated with Dermatophyte Infection
 Adviser: David Needle

Megan Vetter

Animal Science
Assessing the Bioavailability of Rumen-Protected Lysine Supplements Using the Area under the Curve Technique and the Plasma Free Amino Acid Dose-Response Method
 Adviser: Nancy Whitehouse

Sarah Waleryszak

Nutrition
Calories In/Calories Out: Does It Relate to College Students' Sleep?
 Adviser: Jesse Stabile Morrell

Sierra Walsh

Biomedical Science, Neuroscience and Behavior
Neuronal Primary Cilia in Postnatal Brains
 Adviser: Xuanmao Chen

Tucker White

Marine, Estuarine and Freshwater Biology
*Cuticular Specializations of *Echinophthirius horridus**
 Adviser: István Mikó

Mo White

Sustainable Agriculture and Food Systems
*Functional Response of Convergent Lady Beetle, *Hippodamia convergens* Guérin-Méneville (Coleoptera: Coccinellidae) under Simulated Winter High Tunnel Conditions*
 Adviser: Anna Wallingford

Reese Yeatman

Biomedical Science
*Interspecific Variation of Brain Morphology of Three *Nasonia* Species (Hymenoptera: Chalcidoidea)*
 Adviser: István Mikó

Katelyn Young

Nutrition
Ethical Considerations and Guidelines for Conducting Nutrition Education and Behavior Research with Preschool Age Children
 Adviser: Nooreem Mena

Ann Manchester Kelley Nursing Inquiry Day

Wednesday, May 3
2–5 p.m.
**Memorial Union Building,
Strafford Room**

This event features scholarly presentations by undergraduate Honors students and Graduate Program students in Nursing.

Samantha El-Massih

Nursing

The Psychosocial Impact of Health Maintenance in Young Adults Who Grew up with Chronic Illness

Advisers: Samantha Arnold, Kerry Nolte

Myah Kerbyson

Nursing

Nursing Students' and Recent Graduates' Observations of Fatphobia in the Clinical Setting

Adviser: Kerry Nolte

Delaney Kjendal

Nursing

Universal Suicidality Screening in a Critical-Access Emergency Department

Advisers: Kimberly Force, Kerry Nolte, Sara Robinson

Emiliy Roy

Nursing

The Clinical Observations of Nursing Students and Recent Graduates Caring for LGBTQ+ People

Adviser: Kerry Nolte

Megan Welch

Nursing

Birth Trauma and Exercise Incontinence among Average Active Women

Advisers: Bridget Linehan, Kerry Nolte

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

Championship Round

Wednesday, May 10
1–5 p.m.
Paul College

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

Acknowledgments

The UNH Undergraduate Research Conference has grown to become a signature event at the University and one of the largest and most diverse conferences of its kind. Bringing the URC to fruition each year is the result of a collaborative network of many community members across campus. Here, we acknowledge these individuals and campus units and thank them for helping to make the 2023 URC happen.

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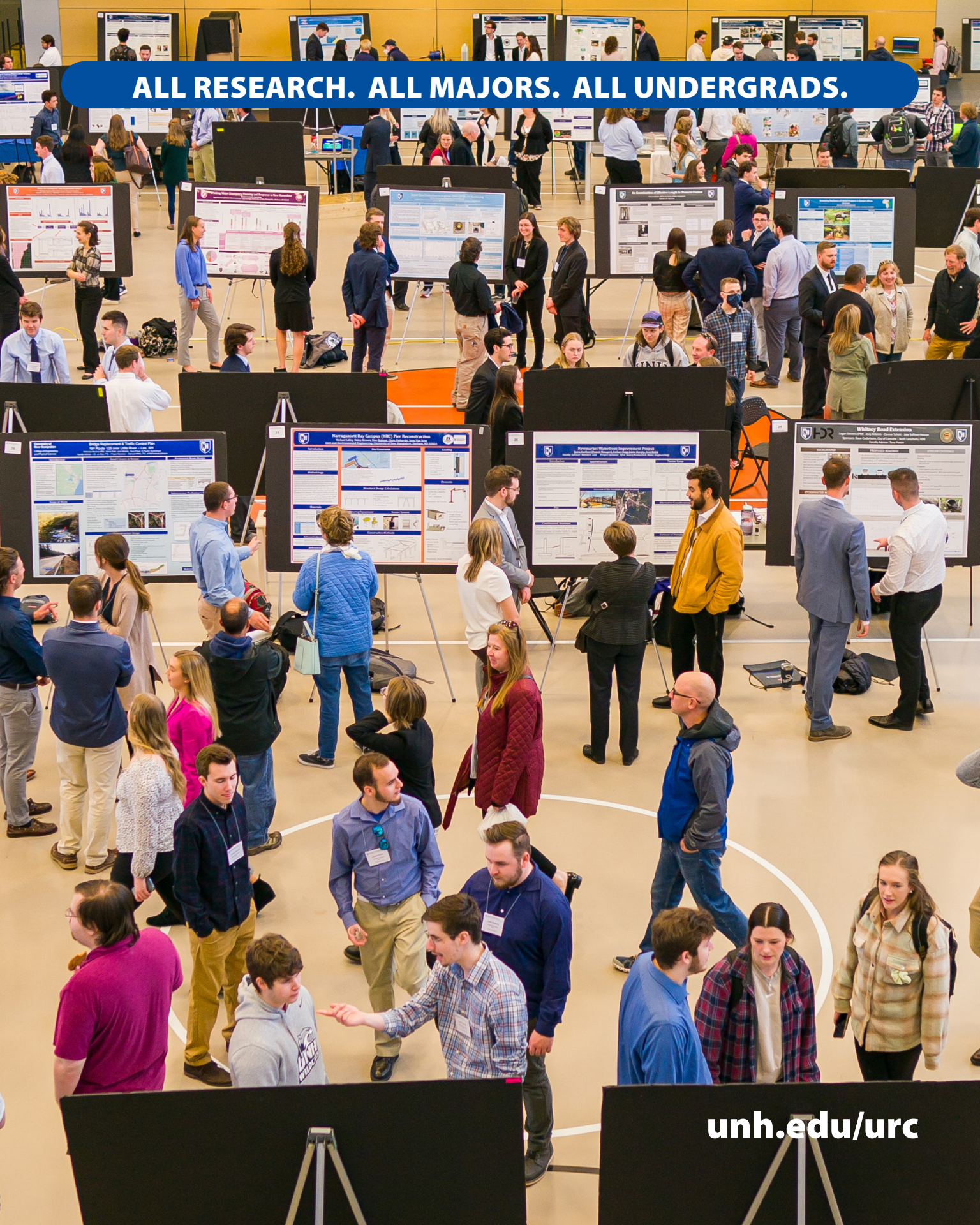
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