



University of
New Hampshire



SPRING 2018

Undergraduate Research Conference

**A UNIVERSITY-WIDE CELEBRATION OF
RESEARCH, SCHOLARSHIP AND CREATIVITY**

URC 2018

A welcome to participants and attendees



MARK W. HUDDLESTON



NANCY TARGETT

THANK YOU FOR JOINING US FOR THE 19TH ANNUAL Undergraduate Research Conference, the UNH community's celebration of the innovative research, academic excellence, scholarship and creative activities of our students and their faculty mentors.

The URC reflects the university's legacy of providing students with great research opportunities, creating innovative solutions and building partnerships that improve the quality of life here in New Hampshire and around the world. With more than 1,900 students and 400 faculty mentors, the URC is one of the largest and most diverse gatherings of undergraduate researchers in the nation.

At both our Durham and Manchester campuses, the URC invites you to explore the academic achievements of students in every school and college. Whether your visit includes a poster session, an oral presentation or a creative demonstration, you will be impressed with the participants' knowledge and understanding. We're delighted to welcome you to the URC, and appreciate your support of our students and New Hampshire's flagship public research university.

Best regards,

A handwritten signature in black ink, appearing to read "Mark W. Huddleston".

MARK W. HUDDLESTON, PRESIDENT

A handwritten signature in black ink, appearing to read "Nancy M. Targett".

NANCY M. TARGETT

PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS

A Welcome from the Hamel Center for Undergraduate Research

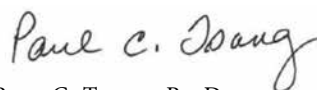
WELCOME to the annual celebration of academic excellence at the University of New Hampshire! The URC embodies UNH's mission to offer students a discovery-based education by encouraging inquiry, exploration, and deeper immersion in their fields of study. This year, more than 1,900 students—mentored by 400 faculty members and other research advisers—will present their research and scholarship at URC events, which include 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, nurturing, and showcasing all stages of the research process. We are excited to build upon the growth and success of previous years and to further promote and expand the opportunities for undergraduate research at UNH.

In every research process, the final stage is the communication of findings to the wider public, and the URC enables students to share the results of their scholarship with fellow students, faculty, staff, family members, federal and state agency personnel, business and industry representatives, and members of our local community. For many students, the URC is their first opportunity to showcase their work to such a broad audience. The URC is thus vital in giving students practice in speaking in public,

communicating complex ideas to a general audience, sharing ideas with colleagues in their fields, 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.

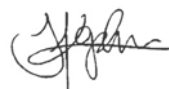
Finally, we want to recognize the many members of the UNH community whose dedication and enthusiasm are critical to making the URC possible. You will find their names in the acknowledgements at the back of the book. The partnerships between—and shared investment of—students, faculty, staff, and administrators not only ensure the success of the URC but also demonstrate the strength of the UNH community. Thank you for joining our community as we celebrate our students' remarkable scholarship!



PAUL C. TSANG, PH.D.
Director, Hamel Center for Undergraduate Research
Professor of Molecular, Cellular, and Biomedical Sciences



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



SENEM KAPTAN
URC Coordinator,
Hamel Center for Undergraduate Research

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All events are free and open to the public.

*Accessibility accommodation requests may be directed to
Senem Kaptan at (603) 862-5494.*

URC 2018 Calendar

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

FRIDAY, APRIL 13

6–8 p.m.

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

*The exhibition will remain open until May 18.
Paul Creative Arts Center, Museum of Art (8)*

TUESDAY, APRIL 17

10 a.m.–1 p.m.

UNH Manchester URC Oral Presentations

Pandora Mill, Room 201

WEDNESDAY, APRIL 18

11 a.m.–1 p.m.

Thompson School of Applied Science Student Showcase

Cole Hall, Stacy's Cafe (1)

Noon–2 p.m.

The Naked Arts—Creativity Exposed! (Act I)

Paul Creative Arts Center, Museum of Art (8)

1:30–4 p.m.

Interdisciplinary Science and Engineering (ISE) Symposium

Whittemore Center Arena (10)

3–5 p.m.

UNH Manchester URC Computing Technology Poster Presentations

Pandora Mill, 1st Floor

3–5 p.m.

UNH Manchester URC Poster Presentations

Pandora Mill, Room 201 and Student Commons

THURSDAY, APRIL 19

9 a.m.–2:30 p.m.

Paul College of Business and Economics URC

Paul College (7)

11 a.m.–1 p.m.

UNH Manchester URC Cinema Arts Day

Pandora Mill, Room 456

Noon–2 p.m.

Paul College of Business and Economics Paul J. Holloway Prize Innovation to Market Competition Charles & Miriam Nelson Poster Competition

Paul College (7)

12:15–2 p.m.

History Department URC

*Memorial Union Building,
Rooms 302, 338, 340 (4)*

12:40–2 p.m.

The Naked Arts—Creativity Exposed! (Act II)

Paul Creative Arts Center, Museum of Art (8)

4–7 p.m.

Philosophy Department URC

Hamilton Smith Hall, Room 240 (2)

FRIDAY, APRIL 20

9–9:30 a.m.

All Colleges Undergraduate Research Symposium Welcome Breakfast

*Memorial Union Building,
Granite State Room (4)*

9:30 a.m.–1:25 p.m.

All Colleges Undergraduate Research Symposium

*Memorial Union Building,
Granite State Room and various rooms (4)*

12:15–1 p.m.

The Naked Arts—Creativity Exposed! (Act III)

Memorial Union Building, Theatre I (4)

1–4 p.m.

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

Pettee Hall, Room 114 (9)

1–5 p.m.

Languages, Literatures, & Cultures (LLC) Department URC

Murkland Hall, Room 202 (5)

1–4 p.m. and 4–8:15 p.m.

Paul College of Business and Economics Paul J. Holloway Prize Innovation to Market Competition Bud Albin Challenge Round

Paul College (7) and UNH ECenter

1:30–4 p.m.

Honors English URC

Hamilton Smith Hall, Rooms 150 and 205 (2)

8–10 p.m.

Student Composers' Concert

*Paul Creative Arts Center,
Bratton Recital Hall (8)*

SATURDAY, APRIL 21

8:30 a.m.–12:15 p.m.

College of Life Sciences and Agriculture (COLSA) URC

Memorial Union Building, MUB Theatre II and Granite State Room (4)

FRIDAY, APRIL 27

9 a.m.–4 p.m.

UNH Manchester URC Engineering Technology Senior Project Presentations

Pandora Mill, Room 201 and 1st Floor

1:30–5 p.m.

Psychology Department George M. Haslerud URC

McConnell Hall, Rooms 220 and 245 (3)

SATURDAY, APRIL 28

9 a.m.–3 p.m.

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

Paul College (7)

WEDNESDAY, MAY 2

8 a.m.–2 p.m.

Ann Manchester Kelley Nursing Inquiry Day

Memorial Union Building, Strafford Room (4)

THURSDAY, MAY 3

3–4:30 p.m.

Chemistry Department Poster Exhibition

Parsons Hall, Southwest Lobby (6)

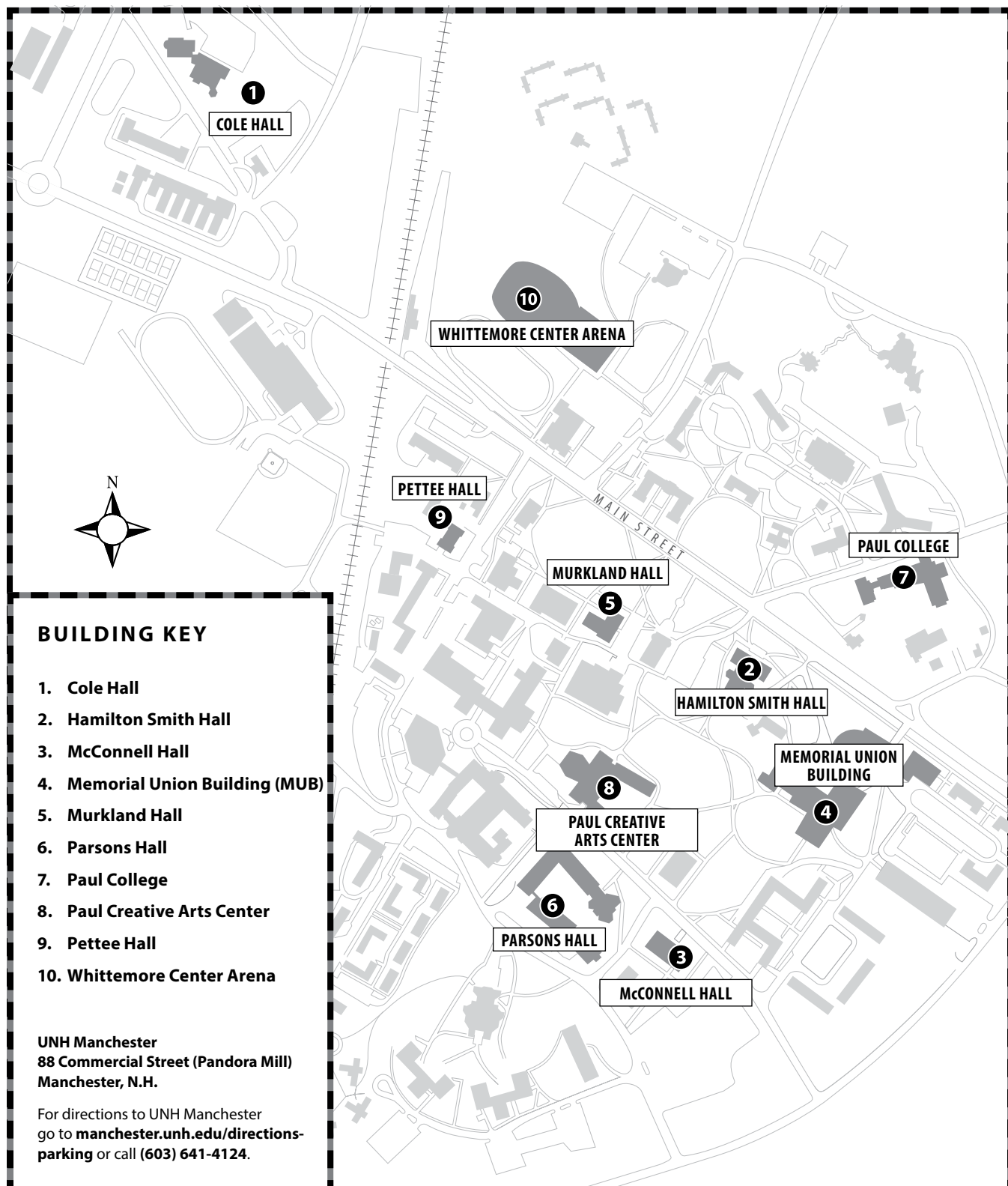
WEDNESDAY, MAY 9

1–6 p.m.

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

Paul College (7)

URC 2018 Campus Map



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

Friday, April 13
6–8 p.m.

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

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

Adviser: Jennifer Moses

Samantha Elsaesser

Art: Studio Art
BFA Thesis Work with a Concentration in Photography

Hannah Lacey

Fine Arts
Painting Thesis BFA

Patricia Leonard

Fine Arts
BFA Thesis—Photography

Cierra Vigue

Art: Studio Art
Intricate Installation

Emily Wernig

Art: Studio Art
BFA Thesis Work: Connecting Drawing and Ceramics

UNH Manchester Undergraduate Research Conference

Oral Presentations

Tuesday, April 17
10 a.m.–1 p.m.
Pandora Mill, Room 201
88 Commercial St., Manchester

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

Caroline Consoli

Communication Arts
Ghosts in Our Movie Theaters: Forming a Dialogue with the Dead and Facing Fears through Horror Films
Adviser: Jeffrey Klenotic

About Alhassan Essa

Meriah Metzger
Politics and Society
Present and Defend: SB 422
Adviser: Stephen Pimpare

Kyle Foden

Alexander Rego
Political Science
HB 656: Marijuana Legalization in New Hampshire
Adviser: Stephen Pimpare

Logan Frye

Communication Arts

Karli Todt

Political Science
Present and Defend: HB 1709
Adviser: Stephen Pimpare

Jaisha Jimenez

Kimberly Morrow
Politics and Society
HB 628: Family and Medical Leave Insurance Program
Adviser: Stephen Pimpare

Danielle Johnson

History
Nationalism Is a Gateway Drug: Analyzing Nationalistic Influence in Tobacco Advertisements in Russia and China
Adviser: Kristen Woytonik

Nicholas Sammartino

History
The Relationship between Policy and Drug Use in the United States and Portugal
Adviser: Kristen Woytonik

Nicholas Tatum

Homeland Security
Fourth Amendment Protections in the Digital Age
Adviser: Maeve Dion

Thompson School of Applied Science Student Showcase

Wednesday, April 18
11 a.m.–1 p.m.
Cole Hall, Stacy's Cafe

At this event, Thompson School of Applied Science students translate academic instruction into practical presentations. Selected students showcase their expertise in such diverse areas as food services management and forest and horticultural technology.

Susanna Bicknell

Horticultural Technology
Salability of Ferns as a Crop Grown "Under-Bench"
Adviser: Jonathan Ebba

Megan Grant

Integrated Agriculture Management
Farming Small for the Family: Instilling Values through Family Farming
Adviser: Andrew Conroy

Erich Lowe

Horticultural Technology
Fertilizer Selection to Maximize Fiber Yields of Industrial Hemp
Adviser: Jonathan Ebba

Rose Marston

Horticultural Technology
Suitability of Recycled Cellulose as a Growing Medium
 Adviser: Jonathan Ebba

Joshua Pires

Horticultural Technology
Effects of Media Selection on Growth Parameters of Industrial Hemp
 Adviser: Jonathan Ebba

Abraham Robertson

Integrated Agriculture Management
Growing the Customer Base for a Century-Old Dairy
 Adviser: Andrew Conroy

Leann Tsou

Horticultural Technology
Feasibility of Goji as a Greenhouse Crop in New Hampshire
 Adviser: Jonathan Ebba

Nathan Zetterberg

Integrated Agriculture Management
Farm Fresh from the Roof: Growing a Better Restaurant
 Adviser: Andrew Conroy

The Naked Arts— Creativity Exposed

Act I

Wednesday, April 18

Noon–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.

Isabelle Beagen

Theatre
Eleanor Marx and Henrik Ibsen: Understanding History through the Theatre of the Period
 Adviser: David Richman

Hannah Lacey

Fine Arts
Painting Thesis BFA
 Adviser: Jennifer Moses

Patricia Leonard

Fine Arts
BFA Thesis—Photography
 Adviser: Jennifer Moses

Liam Tanner

Theatre
WYRA—Creating a World
 Adviser: Deborah Kinghorn

Cierra Vigue

Art: Studio Art
Intricate Installation
 Adviser: Jennifer Moses

Elizabeth Walsh

English, History
Scream
 Adviser: Thomas Payne

Interdisciplinary Science & Engineering (ISE) Symposium

Poster Presentations

Wednesday, April 18

1:30–2:30 p.m. Awards Ceremony

2:30–4 p.m. Open House

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: Wilfred Wollheim

Marissa Anderson

Genetics, German
Metabarcoding Investigation of Extensive Dune Grass Die-Off in the Northeast
 Advisers: Gregg Moore, William Thomas

Samantha Bogdahn

Neuroscience and Behavior
*Testing the Sensory Ability of *Canis lupus familiaris* to Distinguish between Human Identical Twins*
 Adviser: Leslie Curren

Julia Boisselle

Nutrition
Relationship between Binge Drinking Frequency and Diet among College Students
 Adviser: Jesse Morrell

Hannah Coco

Biochemistry, Molecular and Cellular Biology
Chiral Properties of Carbon Dots Synthesized from Aspartic Acid
 Adviser: Christine Caputo

Stephanie Copeland

Biomedical Science
Population Structure and Dispersal of Prairie Warblers in Southern Maine and New Hampshire
 Advisers: Adrienne Kovach, Matthew Tarr

Beau Garcia

Zoology
*Quantifying the Reproductive Success of a Declining Shrubland-Obligate Songbird, the Prairie Warbler (*Setophaga discolor*), Breeding in an Active Gravel Pit in Southeastern New Hampshire*
 Adviser: Matthew Tarr

Meghan Gillespie

Rachel Rafferty
Brooke Soderberg
 Biology
*Measuring Somatic Mutation Rates in the Model Organism (*Caenorhabditis elegans*) to Further Understand Cancers and Human Disorders*
 Adviser: John Collins

Anna Haber

Genetics

Understanding the Role of Polyamines in Rice under Drought and Salt Stress

Adviser: Subhash Minocha

Lina Heinrichs

Biochemistry, Molecular and Cellular Biology

Mapping Sediment Microbial Community Structure in the Stellwagen Bank National Marine Sanctuary to Facilitate Functional Genomic Studies

Advisers: Semra Aytur, John Bucci

Jessica Hodgkins

Biomedical Science

Antifreeze Proteins: Nature's Cryoprotectants

Adviser: Krisztina Varga

Amanda LeBel

Neuroscience and Behavior

Using Contrast Modulation of Motion-Induced Blindness to Determine Asymmetries of the ON- and OFF-Cell Pathways

Adviser: William Stine

Kayla Lent**Laura Nussbaum**

Wildlife and Conservation Biology

How Do Female-Biased Sex Ratios Influence Male Resource Defense Behavior in Hissing Cockroaches?

Advisers: Leslie Curren, Daniel Howard

Katherine Loiselle**Lindsay March****Colin McGonagle**

Biomedical Science

Phylogenetic Diversity of Antibiotic-Producing Streptomyces Bacteria in the Gut of Lumbricus Earthworms

Adviser: Cheryl Andam

Matthew Morris

Wildlife and Conservation Biology

Masking Effect of Anthropogenic Noise in Predatory Detection

Adviser: Leslie Curren

Jessica Ohrenberger

Zoology

To Bend, or Not to Bend? Hinged Teeth in the Goosefish (Lophius americanus) Have Multiple Functions and Two Distinct Lever Systems

Advisers: Jessica Bolker, Stacy Farina

Nicholas Ritzo

Genetics

Taylor Schwartz

Biochemistry, Molecular and Cellular Biology

Diversity and Antibiotic Activity of Streptomyces Bacteria: Searching for Super-Killer Bacterial Strains

Adviser: Cheryl Andam

Mary Sherman

Sustainable Agriculture and Food Systems

Evaluation of the After-School Program "Healthy Me, Healthy Earth"

Adviser: Joanne Burke

**Chemical Engineering/
Bioengineering**

Group Leader: Adam St. Jean

Ibrahim Al-Musawi**Patrick McGee**

Chemical Engineering

Catalyzed Conversion of Ethanol Using Magnesium-Aluminum Layered Double Hydroxides

Adviser: Nan Yi

Mariah Arral

Chemical Engineering

Electrochemical Evaluation of NG-Hydroxy-L-Arginine

Adviser: Jeffrey Halpern

Christopher Bales

Chemical Engineering

Direct Methane Conversion to Oxygenates over Solid Acid Catalysts

Adviser: Nan Yi

Brandon Blaesing

Bioengineering

Dean Yost

Chemical Engineering

Structural Property Relationship of Biomaterials Using Intercalation of Group 1 Metallic Cations

Adviser: Young Jo Kim

Serge Boucher

Chemical Engineering

Observing the Affinity of Nucleotides to Gold under Applied Potential

Adviser: Jeffrey Halpern

Brady Camplin

Bioengineering

*Development of Oral Universal**Influenza Vaccine*

Adviser: Kang Wu

Daniel Courter**Olivia Rossi**

Bioengineering

Electrochemical and Spectroscopic Study of Peptide-Templated Eumelanin Pigments

Adviser: Young Jo Kim

Caroline Houston

Chemical Engineering

Differentiation of Neural Stem Cells into Neurons

Adviser: Kyung Jae Jeong

Caroline Ladegard

Bioengineering

*Distinguishing Nucleotides Using**Electrochemical Impedance Spectroscopy*

Adviser: Jeffrey Halpern

Rachel Lake

Chemical Engineering

Gelatin-Alginate Microgels for Injectable Microporous Hydrogels

Adviser: Kyung Jae Jeong

Sabrina Marnoto

Chemical Engineering

*The Detection of Beta Carotene and**Lutein Using Electrochemical Impedance Spectroscopy*

Adviser: Jeffrey Halpern

Sean McNeill

Chemical Engineering

Photocatalytic Decomposition of Phenol in Wastewater Using Nitrogen-Modified Titanium Dioxide

Adviser: Nan Yi

Lorenzo Milani

Chemical Engineering

*Mechanistic Studies of Thermal**Decomposition of Nickel-Gallium Layered Double Hydroxides*

Adviser: Nan Yi

Altai Perry

Chemical Engineering
Characterization and Dynamics of Imidazole-Based Channels in Membranes
 Adviser: Harish Vashisth

Adam Twombly

Chemical Engineering
Synthesis, Characterization, and Performance of Boron-Doped TiO₂ Catalysts for VOC Decomposition
 Adviser: Nan Yi

Joseph Verro

Chemical Engineering
EcoCat Vehicle Selection Calculator
 Adviser: Stephen Pesci

Chemistry**Group Leader: Roy Planalp****Alyssa Bangrazi**

Chemistry
Deactivation of Carbapenem-Hydrolyzing Class D β -Lactamases (CHDLs) through the Modification of C6-Substituted Penicillin Derivatives
 Adviser: Marc Boudreau

Brady Barron

Chemistry
Design, Synthesis, and Characterization of a Novel Octadentate Aminophosphonate Ligand for 89Zr-Immuno-PET Imaging
 Adviser: Roy Planalp

Sarah Benware

Biochemistry, Molecular and Cellular Biology
Fabrication of Polymer Nanoparticles via Intrachain Ring-Opening Metathesis Polymerizations (ROMP)
 Adviser: Erik Berda

Erin Braker

Chemistry
Synthesis of a Redox-Active Hydrogel for the Protection of Black Phosphorous
 Adviser: Christine Caputo

Aaron Chung

Chemistry
Investigation of Zr⁴⁺ Complexation with DFO-8 for Positron Emission Tomography
 Adviser: Roy Planalp

Matthew Currier

Chemistry
Synthesis of Indole-Functionalized Methacrylate Polymers for Investigating Nanoparticle Formation Dynamics
 Adviser: Samuel Pazicni

Katherine Dombroski

Chemistry
Towards the Synthesis of a Co(II) Diketo-Porphyrin Catalyst for Hydrogen Production from Water
 Adviser: Christine Caputo

Sarah Lachapelle

Chemistry
Probing the Macromolecular Environment of Porphyrin-Cored Nanoparticles Using Exogenous Ligands
 Adviser: Samuel Pazicni

Courtney Leo

Chemistry
Controlled Synthesis of Single-Chain Nanoparticles under Various Atom Transfer Radical Coupling Conditions
 Adviser: Erik Berda

Zekun Li

Chemistry
Effect of Hydrophobic Group on the Untangling Rate of PolyNIPAM
 Adviser: W. Rudolph Seitz

Yung-Chun Lin

Chemistry
Targeting Crosslinking Density in Emulsion Polymerization
 Adviser: John Tsavalas

Joseph Mancinelli

Chemistry
Synthesis of Functionalized BODIPY Dyes for Use as Fluorescent Probes
 Adviser: Erik Berda

Kassie Picard

Chemistry
Exploration of the Synthesis of 1-Methyl-4-Silatranone and the Contest for Nitrogen's Lone Pair
 Adviser: Arthur Greenberg

Matthew Reuter

Chemistry
Synthesis and Functionalization of Novel Multidentate Ligands for Catalysis with Carbon Dioxide and Ethylene
 Adviser: Roy Planalp

Evangelos Rossis

Chemistry
Synthesis of Organic Bifunctional Spacer for the Conjugation of the Octadentate Chelator DFO with Antibodies for 89Zr-Immuno-PET
 Adviser: Roy Planalp

Ian Smith

Chemistry
Development of New Fluorescent Materials: Putting Carbon Dots to Work
 Adviser: Christine Caputo

Timothy Tetrault

Chemistry
Synthesis of Analogues of Nosokophic Acid
 Adviser: Marc Boudreau

Drew Verrier

Chemistry
Synthesis and Characterization of Porphyrin-Cored Polymer Nanoparticles That Incorporate Hydrogen Bonding to Model Hemes
 Adviser: Samuel Pazicni

Thomas Williams

Chemistry
Exploring Routes to the Synthesis of Dibenzopentalenes
 Adviser: Richard Johnson

Claudia Willis

Chemistry
Synthesis of Single-Chain Nanoparticles via Atom-Transfer Radical Coupling
 Adviser: Erik Berda

Civil & Environmental Engineering—Design**Group Leader: Anthony Puntin****Yikun Bao**

Environmental Engineering

Peter Garland**Wenqian He****Jonathan Watton**

Civil Engineering
Franchetown, New Hampshire: Complete Streets
 Adviser: Kyle Kwiatkowski

Jacob Barbieri
Andrew Blizzard
Daniel Neubauer
Michael Perkins
 Civil Engineering
Town of New Durham, NH—Zechariah
Boodey Farmstead
 Adviser: Anthony Puntin

Carl Berg
Nicholas Bradley
Paul Lovely
Casey Wilson
 Civil Engineering
Salmon Falls Bridge Reconstruction
 Adviser: Raymond Cook

Jonathan Brown
 Civil Engineering, International Affairs
Graham Fay
Jonathon Havey
 Civil Engineering
Morgane Gaudissart
 Environmental Engineering
Dune Walkover at Hampton Beach
State Park
 Advisers: Alyson Eberhardt,
 Jennifer Jacobs

Dominic Carpentiere
Derek Gallagher
Hunter Lawrence
Haley Nix
Katharena Racine
 Civil Engineering
Marine Terminal Improvements for Waste
Transport Barge Operations
 Advisers: Raymond Cook, Cheryl Coviello

Samuel Cheney
Michael Pugsley
Stephen Valeri
 Civil Engineering
Western Ave. Bridge—Henniker, NH
 Adviser: Ricardo Medina

Jessica Choiniere
 Environmental Engineering

Jordan Parent
Thomas Sachs
 Civil Engineering
Santa's Village Pedestrian Crossing
 Adviser: Jo Daniel

Samuel Colombo
Thomas Labrecque
Colin McNabb
Will Rasid
 Civil Engineering
Kyle Sawicki
 Environmental Engineering
Hunt Park Redevelopment, Manchester, NH
 Adviser: Anthony Puntin

Brandon Dreyfuss
 Environmental Engineering
Kevin Gibbons
Kyaw Zaw Hein
Samuel Kaul
Joseph Labrecque
 Civil Engineering
Dascomb Road Redevelopment
 Advisers: Rick Friberg, Anthony Puntin,
 Christopher Raymond

Jasper Jenkins
Jacob Matys
Ivette Pujols
Michael Ramos
Meghan Sweeney
 Civil Engineering
Ash Street Bridge Replacement in
Londonderry, NH
 Advisers: Erin Bell, Tim Polson

John Lemire
Daniel Parisi
Nathaniel Philbrick
Ryan Welch
 Civil Engineering
Scott McWhirter
 Environmental Engineering
Natural Disaster Volunteer Housing—
Cargo Container
 Adviser: Robert Henry

Matthew Lortie
Grant Rosario
Russel Rucker
Rachel Trocchi
 Civil Engineering
Noah Parent
 Environmental Engineering
Dascomb Road Redevelopment Project
 Advisers: Rick Friberg,
 Christopher Raymond

Andrew McDonald
Christopher McGuinness
Jayse Tyropolis
Rafael Vieira
Meghan White
 Environmental Engineering
Water and Wastewater in AMC Huts
 Adviser: M. Robin Collins

Civil & Environmental Engineering—Innovation & Research

Group Leader: Eshan Dave

Rezwan Ali
 Civil Engineering
Investigation of Cocopith in Bioretention
for Treatment of Nutrients (Nitrogen) from
Stormwater Runoff
 Adviser: Thomas Ballestero

Joseph Anatone
Kimberly Perkins
James Rochefort
Erik Rolser
 Civil Engineering
Physical Modeling of Pavement
Performance with Seasonal Moisture
Variations
 Advisers: Eshan Dave, Majid Ghayoomi

Tessa Artruc
 Environmental Engineering
Predicting Sediment Transport in Dam
Removal Scenarios
 Adviser: Kevin Gardner

Ethan Beals
 Civil Engineering
Adrian D'Orlando
Kai Kleyensteuber
Abigail McEachern
Dylan Robbs
Sarah Viola
 Environmental Engineering
Evan Poworoznek
 Statistics
Snare Performance for Submerged Oil
Detection and Monitoring
 Adviser: Nancy Kinner

Andrew Burch
Nicholas DiBartholomeo
Benjamin Enos
Patrick Hackett
Christian Harris
Shayan Hasan
 Civil Engineering
3D Printed Concrete
 Advisers: Dan Bernard, Eshan Dave

Danyi Feng
Sarah Jakositz
Cassidy Wallitsch
Zekun Xun
 Environmental Engineering
Crowdsourced Water Quality Testing at the University of New Hampshire
 Adviser: Weiwei Mo

Morgane Gaudissart
 Environmental Engineering
A Study on the Potential for Power Grid Resilience in Caribbean Nations Using Micro Hydropower
 Adviser: Kevin Gardner

Katie Haslett
 Civil Engineering
Evaluation of Cracking Indices for Asphalt Concrete Fracture Behavior
 Advisers: Jo Daniel, Eshan Dave

Katie Haslett
Shane Majenski
 Civil Engineering
Highway Infrastructure and LCA
 Advisers: Eshan Dave, Kevin Gardner, Weiwei Mo

Zachary Magee
Solomon White
 Civil Engineering
Geo-Wall: Mechanically Stabilized Earth Model
 Adviser: Majid Ghayoomi

Steven Wuebbolt
 Civil Engineering
Engineered Equestrian Riding Surfaces
 Adviser: Jean Benoit

Civil & Environmental Engineering—Investigation & Assessment

Group Leader: Majid Ghayoomi

Tessa Artruc
 Environmental Engineering
Abraham DeMaio

Alex Morrell
Matthew Turner
Jacob Valinski
 Civil Engineering
Noanet Pond Dam Rehabilitation
 Adviser: Kevin Gardner

Hannah Bailey
Robert Paro
Elise Thompson
 Civil Engineering
Jillian Fanelli
Rebecca Rilling
Shannon Stang
 Environmental Engineering
Climate-Ready Coastal Infrastructure
 Advisers: Diane Foster, Jennifer Jacobs

Ross Baker
Austin Jennings
Stacy Johnson
Danielle Kalmbach
 Environmental Engineering
Billy Kitchens
 Civil Engineering
Appalachian Mountain Club Huts Sanitary Assessment
 Adviser: M. Robin Collins

Carolyn Bates
Scott Beattie
Adam Cebulski
Kevin Poulin
Brian Veazey
 Civil Engineering
Kyle Parks-Damon
 Environmental Engineering
West Falmouth, ME Neighborhood Plan
 Adviser: Jean Benoit

Jenna Bergstrom
Robert Carr
Carli Gavin
Jeffrey Schafer
 Civil Engineering
South African Fly Ash in Portland Cement Concrete
 Advisers: Jo Daniel, Eshan Dave, Robert Henry

Rachel Blandford
Connor Brennan
Samantha Doyle
Christopher Wong
 Civil Engineering
Tower Crane Collapse Investigation
 Advisers: Zachary Chabot, Raymond Cook

Torey Brooks
 Civil Engineering, International Affairs
Emily Casavant
Scott Lister
Steven Luchino
 Civil Engineering
Commercial Street Study: Arms Park Redevelopment
 Adviser: Ricardo Medina

Ashleigh Gilchrist
Alexandria Hidrovo
Christian Rodriguez
Timothy Sommer
 Environmental Engineering
Rachel Hastings
Sean Horigan
 Civil Engineering
Georgetown, ME Culvert Analysis Project
 Adviser: Nancy Kinner

Colter Krzcuik
Michael Patrick
 Civil Engineering
Tyler Murray
Joshua Teixeira
 Environmental Engineering
Quantitative Analysis of Gilman Pond Reservoir
 Adviser: James Malley

Carolyn Lamb
Deanna Lambert
Maddison Ledoux
Matthew McGuire
Shannon Ruggieri
 Environmental Engineering
Post-Closure of the Turnkey Landfill, TLR-II
 Adviser: Kevin Gardner

Computer Science—Applications

Group Leader: Betsy Coleman

Heli Amin
 Information Technology
Huy Le
 Finance, Information Technology
Court Documents Mining Pipeline: Liberty Mutual Insurance
 Advisers: Jane Hillyard, Matthew Magnusson

Noah Aronson
Camden Tatsapaugh
Evelyn Thompson
 Information Technology
Measuring Albedo (Reflectivity) with Smartphones: A Citizen Science App
 Adviser: Elizabeth Burakowski

Matthew Bowden
Tyler Kokoszka
Harrison Pham
 Computer Science
Benjamin Fruth
 Computer Engineering
Augmented Reality Charts
 Advisers: Thomas Butkiewicz, Briana Sullivan

Kristian Comer
Francesco Alessandro Mikulis-Borsoi
 Computer Science
YouScheduler—Simplified Course Scheduling
 Adviser: Radim Bartos

Ryan Daley
Conor Ochs
 Information Technology
Andrew Lewis
 Computer Science
Development of a More Functional Pathlete User Profile
 Adviser: Radim Bartos

Duncan Fair
Nathan Letourneau
 Information Technology
Jeremy Plsek
 Computer Science
Inter-User Chat System for Pathlete's Social Network
 Adviser: Radim Bartos

Steven LeClerc
 Information Technology, Justice Studies
Benjamin Pinault
 Information Technology
Francisco Santana
 Computer Science
Maximizing Usability of the Pathlete Platform
 Adviser: Radim Bartos

Brian Nippert
Andrew Stencavage
 Information Technology
Stock Portfolio Website
 Adviser: A. Michael Gildersleeve

Kenneth Picard
Mitchell Stack
 Information Technology
UNH Online Performance Dashboard
 Advisers: Phani Kidambi, Tracy Mullen Cosker, Anne Surman

Brandon Smith
 Computer Science
Pathlete: An Online Athletic Recruitment Service
 Adviser: Radim Bartos

Computer Science—Research

Group Leader: Collette Powers

Alexander Brown
 Computer Science
Interpretable Reinforcement Learning with Ensemble Methods
 Adviser: Marek Petrik

Paul DeGrazia
Pirro Shtino
Trent Taylor
 Information Technology
Soccer Ball Cybersecurity
 Adviser: Jon Miner

Todd Gaunt
Ethan Larkham
 Computer Science
Evaluating Rust
 Adviser: Phillip Hatcher

Myles Johnson
 Computer Science
Data Pipeline Support for NASA's Parker Solar Probe
 Adviser: Jonathan Niehof

Kyle Kroboth
 Computer Science
Intentional Concurrent Programming
 Advisers: Michel Charpentier, Phillip Hatcher

Matin Masimli
Aung Khant Nyar
 Computer Science
Data Analysis of Geothermal Heat Pump Systems
 Adviser: Wheeler Ruml

Travis Nevins
 Information Technology
Network Security AI
 Advisers: Kenneth Graf, Wheeler Ruml

Adam Seavey
Thomas Sorrell
 Computer Science
Implementing Intentional Concurrency in Jikes RVM
 Adviser: Phillip Hatcher

Nicole Sloan
Cameron Smith
 Computer Science
Evaluating Hack
 Adviser: Phillip Hatcher

Computer Science—Systems

Group Leader: Phil Hatcher

Tyler Bedgood
Kirk Sandstrom
Ian Wallace
 Information Technology
Open Source IoT Network Using LoRaWAN
 Adviser: Christina Dube

James Bowden**Zachary Ivey**

Information Technology
Facebook CTF Black Team
Adviser: Kenneth Graf

Christopher Brown**Rachel Karp****Melissa Steinberg****Jorge Velazquez**

Information Technology
Living Bridge Database Project
Adviser: Scott Valcourt

Colin Dorsey

Computer Science
NVMe Power State Testing
Adviser: David Woolf

Zachary Girard

Information Technology
Living Bridge Alert System
Advisers: Ian Gagnon, Collette
Matthias Powers

Andrew Hebert

Computer Science
Indoor Wayfinding for UNH
Library Resources
Adviser: Scott Valcourt

Methodius Kpan**Benjamin Leland**

Information Technology
NECCDC Black Team
Adviser: Kenneth Graf

Aaron Morneau

Computer Science
Improving the UNH-IOL iSCSI
Testing Tools
Adviser: David Woolf

Earth Sciences/Environmental Sciences

Group Leader: Ruth Varner

Kaitlyn Baillargeon

Environmental Sciences
What Is Forest Diversity?
Adviser: Scott Ollinger

Kathryn Bennett

Environmental Sciences, Sustainability
How Can the University of New Hampshire
Reduce Its Nitrogen Footprint?
Adviser: John Aber

Nathan Cleveland

Environmental Sciences
Methane in Freshwater Systems
Adviser: Ruth Varner

Haley Currie

Earth Sciences
Metamorphic Pressure and Temperature
Path from the Highland Fault Boundary
to Findon
Adviser: Jo Laird

Jeremy Gelinas

Environmental Sciences
Analysis of Methane Accumulation in the
Old Durham Reservoir during Periods of
Ice Cover at Durham, New Hampshire
Adviser: Ruth Varner

Kyle Hacker

Environmental Sciences
Greenhouse Gas Emissions from
Headwater Stream Sediments
Adviser: Wilfred Wollheim

Brian Hauschild

Environmental Sciences
Spatial and Temporal Analysis of
Historical Water Quality Data in the
Lamprey River Watershed
Adviser: Anne Lightbody

Matthew Healy

Environmental Sciences
GIS-Based Modeling of Nitrogen Dynamics
in Pawtuckaway Lake Watershed
Adviser: Anne Lightbody

Liam Kenefic

Earth Sciences
Detection of Repeating Earthquakes within
the Cascadia Subduction Zone Using
2013-2014 Cascadia Initiative Amphibious
Network Data
Advisers: Susan Bilek, Margaret Boettcher

Tess Murray

Earth Sciences
Metamorphism in Glenesk, Scotland
Adviser: Jo Laird

Tyler Smith

Earth Sciences
Constraining the Age of the Fossil-Bearing
La Colonia Formation in Patagonia,
Argentina Using Magnetostratigraphy
Adviser: William Clyde

Madison Wood

Earth Sciences
Mercury Dynamics in New England
Wetlands
Adviser: Julia Bryce

Electrical & Computer Engineering—Hardware Design

Group Leader: Richard Messner

Tim Beaulieu

Jeremiah Vardaman
Electrical Engineering
Lumen Musicorum
Adviser: Michael Carter

Isabelle Brock

Max Radermacher
Electrical Engineering
Colin Rockwell
Mechanical Engineering
Myoelectric-Controlled Prosthetic Hand
Advisers: Ioannis Korkolis, Richard
Messner, Wayne Smith

John Carlson

Electrical Engineering
Piezoelectric Crystal Shoe Power
Adviser: John LaCourse

Sean Couture

Devon Crawford
Electrical Engineering
Ultrasonic Receiver for Power Line
Noise Isolation
Adviser: Michael Carter

John Curl-Larson

Electrical Engineering
RFID Chessboard
Adviser: Kent Chamberlin

Samuel Leahy

Brett Nelson
Adam O'Neil
Electrical Engineering
Displaying Octaves with the
Constant-Q Transform
Adviser: Michael Carter

Joshua Letterman

Computer Engineering
Real-Time Sleep Apnea Detection and Mitigation
 Adviser: John LaCourse

Theophile Nkengfack

Amadou Tall
 Electrical Engineering
A Miniaturized Wireless Sensing Module for Geotechnical Measurements
 Adviser: Edward Song

Alex Sarasin

Electrical Engineering
Improving the Robustness of the UNH Remotely Operated Vehicle
 Advisers: Michael Carter, May-Win Thein

Samantha Sirois

Electrical Engineering
Vegetative Voltage Generation
 Adviser: John LaCourse

Electrical & Computer Engineering—Software/Systems Design

Group Leader: Pablo Yoon

Ezequiel Abreu

Sean Cronin
 Computer Engineering
Issam Benabdelkrim
Alfred Odierno
 Electrical Engineering
Image Processing of Plant Chlorophyll
 Adviser: Richard Messner

Ross Carey

Electrical Engineering
Timothy Harry

Kyle Tierney
 Computer Engineering
Designing a Solder Reflow Oven
 Adviser: Richard Messner

Alec Crimmin

Christian Vance
 Electrical Engineering
Ethan Stewart
 Computer Engineering
Autonomous Mapping Robot
 Adviser: Se Young Yoon

Justin Devinney

Eric Ouellette
 Computer Engineering
Learning Checkers Using TensorFlow
 Adviser: Richard Messner

Ty Kartiganer

Joel Nkounkou
 Electrical Engineering
Predicative Intra-Traffic Management and Analysis for Stadium and Venue-Like Spaces
 Adviser: Andrew Kun

Joshua Kuun

Computer Engineering
Localization and Visualization of Mobile Devices on the UNH Campus
 Adviser: Nicholas Kirsch

Teagan Northrup

Electrical Engineering
EEG and EMG Sensorimotor Measurements to Assess Proprioception Following ACL Reconstruction
 Advisers: Ronald Croce, Wayne Smith

Teagan Northrup

Anna Snarski
 Electrical Engineering
EEG and EMG Sensorimotor Measurements to Assess Proprioception Following ACL Reconstruction: Pilot Study Using Non-Injured Subjects
 Advisers: Ronald Croce, Wayne Smith

Abdulrahman Saed

Computer Engineering
Chang Ki Sung
 Electrical Engineering
Quad Swarm Using Feedback Control System
 Adviser: Se Young Yoon

Jason Sisk

Electrical Engineering
Faraday Rotation Ammeter
 Advisers: Matthew Argall, Kent Chamberlin

Michael Steed

Justin Wang
 Electrical Engineering
Design of Robotic Swarm for Indoor Testing of Cooperative Control Systems
 Adviser: Se Young Yoon

Xihong Su

Computer Engineering
Toward a Tool to Evaluate Visual Behavior in Multi-Device Environments
 Adviser: Andrew Kun

Cameron Whitaker

Electrical Engineering
The Neptune Project
 Advisers: Kenneth Baldwin, Richard Messner

Mechanical Engineering—Competition Teams

Group Leader: Ivo Nedyalkov

Jonathan Alcantara

Samuel Shippee
 Computer Science
Evan Grissino
Xinglun Li
Nicholas Long
Kyle Ouellette
Kuldeep Prajapati
Huntington Welch
 Mechanical Engineering
Nathan Hall
 Electrical Engineering Technology
Anthony Velte
 Engineering Physics
Autonomous Quad-Rotor Formation Design
 Adviser: May-Win Thein

Jordan Bates

Jacob Branchaud
James Holden
Mohit Sagar
 Computer Science
Andrew Dickson
Timothy Morales
Ryan Nagelschmidt
Shelby Strickland
 Mechanical Engineering
ET-NavSwarm
 Adviser: May-Win Thein

Charles Bauer
Michael Cook
Matthew Diorio
Stephen Gormley
Timothy Levins
Jackson Riedel
Timothy Russell
Michael Rutigliano
 Mechanical Engineering
UNH AeroCats—Advanced Team
 Adviser: Alireza Ebadi

Scott Bednarz
Trevor Bednash
Kyle Carmichael
Steven Farrell
Erik Garcia
Brendan Grenier
Yagoub Hashim
Hunter Lamphere
Jacob Savoie
Nathan Soucy
 Mechanical Engineering
Keith Nason
 Electrical Engineering
Brian Rainville
 Computer Engineering
UNH Formula SAE
 Adviser: Todd Gross

Alexander Bickford
Nathaniel Bissey
Anthony Cafiso
James Fey
Patrick Glynn
Ryan Joaquin
David Knapp
Ryan Pinard
Connor Rose
Nathaniel Steggall
Belinda Vuto
Colin Williamson
 Mechanical Engineering
Baja SAE
 Adviser: Barbaros Celikkol

Jonah Blum
Dingxin Liu
Nicholas Schott
Ethan Setear
 Mechanical Engineering
Annavitte Rand
 Civil Engineering
Independent Refugee Shelter—2018
ASHRAE Applied Engineering Challenge
 Advisers: Paul Bemis, Iyaylo Nedyalkov,
 Anthony Puntin

Kevin Bucher
Nicholas Clegg
Charlie Nitschelm
Reilly Webb
 Mechanical Engineering
Daniel Nemr
 Electrical Engineering
SEDS University Student
Rocketry Competition
 Adviser: Todd Gross

Alex Claire
Katelyn Cronin
Abdul-Rahman Dambazau
Carly Lavender
Patrick MacLea
Brittany Marshall
James Rice
Andrew Stokes
 Mechanical Engineering
UNH Aero: RC Cargo Plane
 Adviser: Alireza Ebadi

Andrew Ervin
 Electrical Engineering
Zhangxi Feng
Cory Greenblatt
Matthew Westbrook
 Mechanical Engineering
Bryant Volk
Garrett Wedge
 Computer Science
UNH LunaCats—NASA Robotics Mining
Competition Team
 Advisers: Michael Carter, May-Win Thein

Mechanical Engineering— Industry

Group Leader: Ivo Nedyalkov

Daniel Berry
 Mechanical Engineering
*Water-Flow Analogy Testing of an Involute-
Profile Counterflow Heat Exchanger with
Crossflow Headers Flow Distribution and
Pressure Loss Characteristics*
 Advisers: Jim Nash, Iyaylo Nedyalkov

Graeme Bignell
Hyenjin Jeong
Michael Locke
Colten Tenney
 Mechanical Engineering
Automated Defect Inspection
 Advisers: John Graham, Brad Kinsey

Nicholas Deskur
 Electrical Engineering
Johnathon Fones
Jesse Kelley
 Mechanical Engineering
*Automated Window Seal Quality
Control Machine*
 Advisers: Michael Carter, Barry Fussell,
 Saman Nouri

Garrett Faino
Taylor Maniatty
Sean O'Grady
Christopher Steinke
Matthew Walsh
 Mechanical Engineering
Timberland PRO Midsole
 Adviser: Yaning Li

Kristopher Fargo
Erik Gustafson
Bradley Olsen
 Mechanical Engineering
*Industrial Application of Time-Sensitive
Networking*
 Adviser: Se Young Yoon

Matthew Gray
 Computer Science
Peng Liu
Zhenghao Lu
Carl Stohlberg
Patrick Sullivan
 Mechanical Engineering
Symbolic Utility Bot
 Adviser: Brad Kinsey

Benjamin Londrigan
 Mechanical Engineering
SIG SAUER Rifle Barrel and Bolt Proofing
 Adviser: Marko Knezevic

Caroline Quintal
Erik Rockstrom
Kristin Snyder
 Mechanical Engineering
Cutting Tool Power Analysis
 Advisers: Barry Fussell, Mike Newsky,
 Jason Pier, Dave Smart

Anthony Young
 Mechanical Engineering
Slurry Test Re-Design
 Advisers: Kevin Guay, James Krzanowski

Mechanical Engineering— Research

Group Leader: Ivo Nedyalkov

Reed Bell

Sydney Michalak

Mechanical Engineering

Aerodynamic Forces on Cyclists in Formation

Adviser: Iwaylo Nedyalkov

Aaron Chapman

Mechanical Engineering

Electromagnetic Compression of Metallic Tubes as an Innovative Manufacturing Process

Adviser: Brad Kinsey

Nicholas Doiron

Samuel Whitmore

Mechanical Engineering

UAV Electronics Cooling System

Adviser: Christopher White

Zhangxi Feng

Mechanical Engineering

Functionally Graded Microstructures with Dream 3D and MatLab

Adviser: Marko Knezevic

Amanda Lee

Francesca Molinari

Business Administration

Keelan McCooile

Entrepreneurial Studies, Information Systems and Business Analytics

Joel Nkounkou

Electrical Engineering

Caroline Quintal

Kristin Snyder

Mechanical Engineering

Wearable Air Pollution Device for

Crowdsourcing Hot Spot Data

Advisers: Barbaros Celikkol, Jeffrey Sohl

Andrew Masters

Mechanical Engineering

Investigation of Motion Cueing Algorithms on the IMS Driving Simulator

Advisers: Jan Böhn, Philipp Erler,

Stephan Rinderknecht

Kyle Reisert

James Ripley

Mechanical Engineering

Generating Non-Equilibrium Boundary Layers at High Reynolds Number

Adviser: Christopher White

Ocean Engineering

Group Leader: Ivo Nedyalkov

Cory Baum

Matthew Carey

Perry Craver

Huixiang Li

Mechanical Engineering

HiCAT Water Tunnel Restoration

Advisers: Iwaylo Nedyalkov,

Martin Wosnik

Nicholas Bealo

Kyle Mundorff

Mechanical Engineering

Poseidon Project

Adviser: Thomas Weber

Peter Bowers

Daniel Lamkin

Computer Science

Seamus Sargeant

Christopher Urbanski

Mechanical Engineering

Autonomous Surface Vehicle

Adviser: May-Win Thein

Mark Buntserv

Tyler Costa

Michael Schratz

Judas Taylor

Mechanical Engineering

John Yarmas

Information Technology, Business Administration

MV—Marine Vehicle

Adviser: May-Win Thein

Garrett Caisse

Mechanical Engineering

Kevin Strohschneider

Ocean Engineering

Living Bridge: Acoustic Doppler

Velocimeter Traversing System and Measurements

Advisers: Kaelin Chancey, Ian Gagnon, Martin Wosnik

Danielle Coombs

Hannah Thomas

Mechanical Engineering

Project OASIS: Optimizing Aquaponic Systems to Improve Sustainability

Advisers: Todd Guerdat, Iwaylo Nedyalkov

Michelle Domino

Ocean Engineering

Measuring Interfacial Tension between Oil and Water

Adviser: Thomas Weber

Lena Downes

Kimberly Radzelovage

Mechanical Engineering

River Iannaccone

Ocean Engineering

Alex Sarasin

Electrical Engineering

Underwater Remotely Operated Vehicle

Adviser: May-Win Thein

Neil Mistretta

Mechanical Engineering

Jacob Moore

Marine, Estuarine and Freshwater

Biology, Sustainability

UNH Sustainable Surf Initiative

Adviser: Iwaylo Nedyalkov

Physics

Group Leaders: Ningyu Liu and Orly Buchbinder

Tristan Anderson

Physics, French

Low Temperature Thermometry on a

Helium Evaporation Fridge

Adviser: Karl Slifer

Tyler Chapman

Engineering Physics

Integration of an NOx PMT Instrument into the G-CHASER Rocket Mission

Adviser: Marc Lessard

Morgan Daly

Physics

Monte Carlo Simulations of Topological Magnetic Materials

Adviser: Jiadong Zang

Cameron Flynn

Physics

An Ultra-High Vacuum Probe Station for 2D Material Transport and in situ Functionalization

Adviser: Shawna Hollen

Nicholas Lajoie

Physics, German

Measuring NMR in Different 3D Printed Plastics for Background Polarization Applications

Adviser: Elena Long

Brent Lawson

Physics, Chemistry

Combined HERA Analysis on the Exclusive Production of the Phi meson in the ZEUS Detector

Adviser: Karl Slifer

Benjamin MacDonald

Physics

Determining Atomic Surface Structure Using μ LEED IV Dynamic Analysis

Advisers: Zhongwei Dai, Karsten Pohl

Cameron Maillet

Physics

Relationship between Interplanetary Conditions and Rapid Fluctuations in the Geomagnetic Field to Understand the Causes of Geomagnetically-Induced Currents

Adviser: Noe Lugaz

Kellie McGuire

Physics

Preparing Fluoroplastics for 3D Printing

Adviser: Elena Long

Ronny Nguyen

Physics

X-Ray Sources from the XMM-Newton and the Search for Tidal Disruption Events

Adviser: Dacheng Lin

Evin O'Shea

Physics

Modeling Momentum Diffusion in the Solar Wind

Adviser: Benjamin Chandran

Derek Phillips

Engineering Physics

Boom Deployment Variable Flywheel

Adviser: Marc Lessard

Aleksandr Sinilov

Engineering Physics

Production of Scintillation Particle Detectors with Stereolithography-Based 3D Printing

Adviser: Elena Long

Alex Wright

Computer Engineering, Physics

Space Environment around the International Space Station

Adviser: Jichun Zhang

UNH Manchester URC Computing Technology Projects

Poster Presentations

Wednesday, April 18**3–5 p.m.****Pandora Mill, 1st Floor****88 Commercial St., Manchester****Ryan Ballard**

Business

Exploring the Use of Raspberry Pi with Python Coding to Open a Garage Door

Adviser: Howard Eglowstein

Brian Barnes

Stephen Thibault

Computer Information Systems

Hannah Yudkin

Business, Computer Information Systems

Capstone Project: Modeling Group

Adviser: Michael Jonas

Peter Baronas

Computer Information Systems

Dylan Durand

Computer Science and Entrepreneurship

Sharvil Jani

Information Technology

Cloud Computing

Adviser: Earl Labatt Jr.

Indra Basnet

Computer Information Systems

Traffic Light Project

Adviser: Howard Eglowstein

Daniel Beitel

Jaden Henry

Arias Talari

Computer Information Systems

Capstone Project: Experiment Group

Adviser: Michael Jonas

Daniel Beitel

Computer Information Systems

Energize Andover: A Research Project with BACnet

Adviser: Hong Jin

Patrick Bittman

Brooke Brown

Naina Prasai

Computer Information Systems

Logistical Computing Challenges in Social Media

Adviser: Earl Labatt Jr.

Bernard Brown

George Harvey

Computer Science and Entrepreneurship

Ethan Jarzombek

General Studies

Monica Pagliuca

Computer Information Systems

Programming Languages

Adviser: Earl Labatt Jr.

Wesley Couturier**Faruk Durakovic****Danielle LeBoeuf****Lamia Mukanovic**

Joshua Young

Computer Science and Entrepreneurship

Capstone Project: Software Group

Adviser: Michael Jonas

Ryan Daigle

Undeclared

Campbell Lindsay

Computer Information Systems

Cryptocurrency Mining

Adviser: Earl Labatt Jr.

Travis Deschenes**Christopher Howell****Andrea Murphy****Alexander Tenczar**

Computer Information Systems

Smart Phone Evolution: Hardware vs. Software

Adviser: Earl Labatt Jr.

Shane Deveau

Business

Decoding a Drone

Adviser: Howard Eglowstein

Scott Geilen

Computer Information Systems

Home Security Mockup out of Lego, Raspberry Pi, and Other Small Technologies

Adviser: Howard Eglowstein

Sabra George

Analytics and Data Science

IOT Remote Thermostat

Adviser: Howard Eglowstein

Yashna Giri**Camden Marble****Christopher Nobrega****Daniel Rubin**

Computer Information Systems

Capstone Project: Systems Group

Adviser: Michael Jonas

Santiago Gomez

Analytics and Data Science

Systems Fundamentals Semester Project

Adviser: Howard Eglowstein

Yurii Gromakov**Shakunt Rajbhandari**

Computer Information Systems

Thomas Jones

Homeland Security

Hardware History

Adviser: Earl Labatt Jr.

Danielle LeBoeuf

Computer Science and Entrepreneurship

*Andover High School—Food Computer**Using Raspberry Pi and Arduinos*

Adviser: Hong Jin

Isaac Marsh**Tri Nguyen****Rosali Salemi**

Computer Information Systems

Capstone Project: Data Group

Adviser: Michael Jonas

Isaac Marsh

Computer Information Systems

Internship Experience: Staples Certified Technician

Adviser: Hong Jin

Alek Medic

Undeclared

Project for COMP 430

Adviser: Howard Eglowstein

Lamia Mukanovic

Computer Science and Entrepreneurship

Internship Experience: Learning about Chime for Lync

Adviser: Hong Jin

Tri Nguyen

Computer Information Systems

*Web Designing and Graphic Designing**Internship at U.S.S. LLC*

Adviser: Hong Jin

Aushy Pokharel

Business

*Motion Alarm System with**Remote Alerting*

Adviser: Howard Eglowstein

Jake Richards

Computer Information Systems

*Creating Home Automation Using**Raspberry Pi and Python*

Adviser: Howard Eglowstein

Daniel Rubin

Computer Information Systems

COMP 690 Internship Experience

Adviser: Hong Jin

Andrew Ryder

Computer Information Systems

Shared Resource Status Monitor

Adviser: Howard Eglowstein

Connor Tess

Analytics and Data Science

Morse Code System

Adviser: Howard Eglowstein

Stephen Thibault

Computer Information Systems

*Energize Andover and Andover Public**School System BACnet Project*

Adviser: Hong Jin

John Vey

Computer Information Systems

*Independent Study—Digital Data**Visualizations for TBI/Mental**Health Therapies*

Adviser: Timothy Chadwick

John Vey

Computer Information Systems

*Internship Experience: Grobotics**Engineering LLC*

Adviser: Hong Jin

UNH Manchester Undergraduate Research Conference

Poster Presentations

Wednesday, April 18**3–5 p.m.****Pandora Mill, Room 201 and****Student Commons****88 Commercial St., 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.

Michelle Amiet

Neuropsychology

In-Home Fall Prevention for Older Adults

Adviser: Alison Paglia

Jocelyne Arseneault

Biotechnology

Affinity Purification of Polyclonal Antibodies

Advisers: Kyle MacLea, Stephen Pugh

Allison Atkinson

Communication Arts

Opium Dens in China in the 19th Century: A Social History

Adviser: Kristen Woytonik

Rachel Avery

English, History

Femininity and Aloneness in France: Depictions of Women and Absinthe in Painting 1875-1906

Adviser: Kristen Woytonik

Bryanne Barna

Biological Sciences

Becoming a Licensed Nursing Assistant through LNA Health Careers

Advisers: Patricia Halpin, Stephen Pugh

Audrey Beaudoin

Biology

Emily Fifty

Psychology

Eating Habits of Commuter College Students

Adviser: Alison Paglia

Ashley Bensmiller

Psychology

*Assessment of Employees' Stress-**Management Strategies*

Adviser: Alison Paglia

Bonnie Burke

Biology

Cardiac Heart Rhythms

Adviser: Stephen Pugh

Caroline Consoli

Communication Arts

Wonder Woman (2017): Continuing the Feminist Tradition

Adviser: Barbara Jago

Hannah Curran

Neuropsychology

Barriers to Referring Pediatric Patients to Mental Health Services

Adviser: Nicholas Mian

Samy Daghir

Psychology

*Competing Neural Events of Motion-**Induced Blindness under Depth Conditions*

Adviser: John Sparrow

Kelsie Duggan

Biotechnology

Anti-Tobacco Campaigns through the 20th Century: England and America's Journey

Adviser: Kristen Woytonik

Zerina Dulas

Biological Sciences

*Job Shadowing a Dermatology**Physician Assistant*

Adviser: Stephen Pugh

William Duval

Politics and Society

What Is the Estate Tax?

Adviser: Stephen Pimpare

Emma Fairbank

Communication Arts

MDMA and Its Link to the AIDS Crisis

Adviser: Kristen Woytonik

Rodion Fedorov

Biotechnology

*Effects of Doxycycline on E2F7 in**Pancreatic Cancer Cells*

Adviser: Stephen Pugh

Amanda Feeney

Psychology

Mindfulness: An Early Intervention

Adviser: Alison Paglia

Alexandra Ferguson

Biological Sciences

Animal Health at a Family-Owned Farm

Advisers: Kyle MacLea, Stephen Pugh

Valerie Fernandez

Biology

*Occupational Therapy Shadowing:**Comparing Outpatient Pediatrics and**School Setting Therapy*

Advisers: Kyle MacLea, Stephen Pugh

Alicia Finney

Biological Sciences

*Characterization of the Role of ARNTL2 in**Malignant Pancreatic Ductal Cells*

Advisers: Kristen Johnson, Stephen Pugh

Alicia Finney

Biological Sciences

*Comprehensive Analysis of New**Hampshire Public School Lunches*

Advisers: Stephen Pimpare, Stephen Pugh

Emma Ghilardi

Homeland Security, Psychology

An Evaluation of Smokers' Stigmatization Experiences

Adviser: Alison Paglia

Taylor Gilliam

Politics and Society

Internship with Desmarais Law Group in Manchester, New Hampshire

Adviser: Stephen Pimpare

Abigail Goen

Biological Sciences

*Sequencing and Cataloging the Microbial**Genomics of Kurthia sibirica and**Kurthia zopfii*

Adviser: Kyle MacLea

Santiago Gomez

Analytics and Data Science

Neural Networks and Deep Learning

Adviser: Jeremiah Johnson

Hannah Jore

Neuropsychology

Bearded Dragon Vision

Adviser: John Sparrow

Haley Kalil

Biological Sciences

Neonatal Abstinence Syndrome (NAS)

Advisers: Sarah Prescott, Stephen Pugh

Ryan Kiessling

Business

The Cost of Cocaine in South America

Adviser: Kristen Woytonik

Stacey Kulas

Psychology

The Impact of Homelessness on Families

Advisers: Nicholas Mian, Alison Paglia

Donna Laferriere

Biological Sciences

Evolution of a Database

Advisers: Patricia Halpin, Stephen Pugh

Alletta Lanoue

Biological Sciences

Papillomavirus Prevention

Adviser: Kyle MacLea

Mikova Marquis

Politics and Society

International Copyright Infringement

Adviser: Stephen Pimpare

Elizabeth Maurais

Biotechnology

Effect of Reduced FOXN2 Gene Expression in Transformed Panc-1 Cells

Adviser: Kristen Johnson

Claudia Maynard

Biotechnology

Influences on Clinical Decision-Making in Medicine for Child Mental Health Problems

Adviser: Nicholas Mian

Jacob Maynard

History

Use of Imagery in Tobacco Ads in America and Mexico during the 1950s

Adviser: Kristen Woytonik

Andrew McElroy

History

The Crack Cocaine Epidemic of the 1980s

Adviser: Kristen Woytonik

Thomas McPhee

Politics and Society

The Effects of Raising the Minimum Wage in New Hampshire

Adviser: Stephen Pimpare

Adam Mercer

Biological Sciences

Nootropics and Substance Abuse

Adviser: Sarah Prescott

Alden Milton

Biological Sciences

EMT Clinical Experiences

Advisers: Sarah Prescott, Stephen Pugh

Cynthia Nicolosi

Biology

Making the Transition: Concord Hospice House

Adviser: Stephen Pugh

Justen Norcott

Politics and Society

Development and Foreign Aid in the Middle East and North Africa

Adviser: Stephen Pimpare

Madisson Oliwa

Biotechnology

Downregulation of DCBLD2 Gene Expression in Pancreatic Ductal Adenocarcinoma Using RNAi

Adviser: Kristen Johnson

Madisson Oliwa

Biotechnology

New Hampshire Opioid Epidemic and Needle Exchange Program Advocacy

Adviser: Alison Paglia

Monal Patel

Biological Sciences

An Opportunity to Gain Experience in the Field of Optometry

Advisers: Kyle MacLea, Stephen Pugh

Allison Payne

Politics and Society

Decriminalizing Domestic Violence

Adviser: Stephen Pimpare

Nikol Petrosova

Biological Sciences

PA Shadowing Experience

Advisers: Kyle MacLea, Stephen Pugh

Gabriela Piercy

Communication Arts

Roots to Ruins: Cambodia's Growing Black Market and Environmental Crisis

Adviser: Kristen Woytonik

Connor Pinkham

Homeland Security

From Prescription to Addiction: How the Over-Prescribing of Opioids Has Led to the Heroin Epidemic of the United States

Adviser: Kristen Woytonik

Timothy Pion

Biology

The Biology and Behavior of Largemouth Bass

Adviser: Stephen Pugh

Sarah Poirier

Biotechnology

C. difficile Infection Prevention

Advisers: Sarah Prescott, Stephen Pugh

Audrey Rose

Biotechnology

Exploring Clinical-Based Healthcare through LNA Certification

Advisers: Kyle MacLea, Stephen Pugh

Madison Russo

Biotechnology

Health Care Is a Right

Adviser: Stephen Pugh

Colin Schnaible

Undeclared

Mind Control: The MK Ultra LSD Experiments

Adviser: Kristen Woytonik

Karli Todd

Political Science

Legal Process: Medical Malpractice Law

Adviser: Stephen Pimpare

Juliette West

Biology

Hashimoto's Disease

Adviser: Stephen Pugh

Alexander Williams

Biotechnology

Life in the Laboratory of a Major Regional Hospital

Adviser: Kyle MacLea

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

Poster Presentations

Thursday, April 19

9 a.m.–2:30 p.m.

Peter T. Paul College Building

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 University and business leaders.

Paul College, Great Hall and Room G45

9–10:30 a.m.

Business, Government, and Society Poster Presentations

Adviser: Yusi Turell

Sydney April

Business Administration, Information Systems and Business Analytics, Management
TOMS® Shoes: Are They Helping or Hurting?

Brandilynn Barker

Information Systems and Business Analytics, Management
Drug Addiction Impacting Businesses: How Organizations Like Face It TOGETHER Are Helping to Improve the Economy

Sophia Bastone

Management, Marketing
The Effect Airbnb Has on Affordable Housing in New York City

Samantha Blaine

Management, Marketing
Maternal Healthcare and Technology in Underdeveloped Countries: Johnson & Johnson

Meghan Chines

Management

*Deforestation in the Amazon and Its Effects on Business, Government, and Society at Large***Daniel Cuddy**

Finance, Management

*Sugar in Sports Drinks: How Gatorade Is Responding to the Backlash against Added Sugar***Jessica DeMarco**

Management, Marketing

*Patagonia and the Growth of Sustainable Apparel***Jaylyn Eaton**

Management, Marketing

*Getting Back to Our Roots: Connecting Small Farms with Local Restaurants in the 21st Century***Brianna Ferraro**

Management

*Walmart and Overseas Sweatshop Conditions***Henrique Ferreira**

Management, Marketing

*The Impacts of Fast Food Franchises in Kuwait***Katelin Fischer**

Management, Marketing

*UNH Parking Issues and High Fines***Thomas Freni**

Management

*Truck Regulation: Are All Truck Drivers Following Regulations Set by the Government?***Emily Grone**

Management, Marketing

*Can Small Businesses Compete against Amazon in the Digital Age?***Ian Heath**

Management, Marketing

*Laws of Marijuana Affecting Businesses and Society***Callen Hunter**

Management

*Burt's Bees: How Companies Can Act Proactively to Prevent Species Degradation***Cameron Jessup**

Accounting, Management

*Bullying and the Costs to Business and Society***Abigail Kourafas**

Business Administration, Management

*Gravity Payments: How Business is Fighting Back against the Low Federal Minimum Wage***Yueheng Liang**

Management

*Sustainable Business Practice in the Leroy Seafood Group***Connor McCall**

Business Administration, Finance,

Management

*America's Retirement Crisis: How Can We Help a Lagging Generation Prepare for Retirement?***Delaina McCarthy**

Management

*Artificial Intelligence Distress Assistant (AIDA): Providing Survivors a Safe Place without the Wait***Kristin McManus**

Finance, Management

*The Sharing Economy: Will Uber Succeed?***Holly McWalter**

Management, Marketing

*The New Hampshire Women's Foundation: The Fight for Equal Pay***Owen Mellick**

Finance, Management

*GivePower for More Power***Melanie Murphy**

Finance, Management

*Saving Lives: The Campaign to Stop Gun Suicide***Thomas O'Brien**

Management

*The Pentagon and the Defense Industry: How the F-35 Became the Most Expensive Military Program in History***David O'Connor**

Management, Marketing

*Alternative Forms of Sustainable Energy: Putting an End to ExxonMobil's Damage to the Environment***Tyler Racine**

Finance, Management

*Regulating Genetic Engineering: Where Is the Line in Genetic Modification of Human Embryos?***David Ricard**

Management

*Electric Cars and the Growth of Accessible Sustainable Charging Stations***Mia Sarowsky**

Management, Marketing

*Pollution: The Battle over Plastic Waste and How Certain States Are Approaching It***Isaiah Singer**

Management, Marketing

*Cause and Effects of the National Anthem Protests in the NFL***Deryn Smith**

Health Management and Policy,

Management

*Globalization and Its Effect on Human Rights***Nicholas Tougias**

Business Administration

*Walmart's Global Operation and Its Impact on the U.S. Economy***Peter Wheatley**

Business Administration

*Microfinance and the Challenges Individuals Face When Starting Their Own Organizations***Paul College, Second Floor
Graduate Lounge
9–10:30 a.m.****EcoGastronomy Poster
Presentations****George Bolosky**

Ecogastronomy, Sustainable Agriculture and Food Systems

A Guide to Preserving: A Lost Art in New Hampshire

Advisers: Iago Hale, Daniel Winans

Karli Chouinard

Ecogastronomy, Hospitality Management

State Street Cafe: A Sustainable and Locally Sourced Bakery

Adviser: Daniel Winans

Bekah Diamond-Bier

Ecogastronomy, Sustainable Agriculture and Food Systems
Fair Trade Certification: Impact on Communities
Adviser: Daniel Winans

Colleen Driscoll

Ecogastronomy, Nutrition
Go with Your Gut: Reducing Anxiety and Improving Gut Microbiome Health through Food Choices
Adviser: Daniel Winans

Chloe Ellert

Communication, Ecogastronomy
Feeding Your Depression: The Link Between Your Gut, Your Brain, and Your Emotions
Adviser: Daniel Winans

Emily Lane

Ecogastronomy, Sustainable Agriculture and Food Systems

Andrew Rogers

Ecogastronomy, Hospitality Management

Tyler Smith

Community and Environmental Planning, Ecogastronomy
MUB Market: Winter Farmers' Market at UNH
Adviser: Daniel Winans

Victoria Lorvig

Ecogastronomy, Economics
Enthusiasm for Fair Trade: Why the U.K. Outshines the U.S.
Adviser: Daniel Winans

Rachelle McKeown

Ecogastronomy, English
Points of Intervention: Coordinating a Food Resource Fair
Adviser: Daniel Winans

Elinor Purrier

Ecogastronomy, Nutrition
Cows in the Classroom: Dairy Education for Elementary Students
Adviser: Daniel Winans

Genevieve Wolfe

Ecogastronomy, Hospitality Management
Terroir: Comparing Old World and New World Wine
Adviser: Daniel Winans

**Paul College, Second Floor Graduate Lounge
11 a.m.–12:30 p.m.**

Bachelor of Arts in Economics, Session I

Adviser: Aziz Saglam

Marina Bowie

Economics, Sustainability
Using the Travel Cost Method to Measure Impacts of Climate Change on New England Hiking Tourism

Evelyn Brown

Economics
Space Exploration: Costs and Benefits

Joshua Carroll

Economics
Oil Prices and the Economy

Ian Elmslie

Economics
Drug Prohibition: Social and Economic Effects

Abby Geel

Economics
Artificial Intelligence and the Future of Jobs

Christopher Giuliano

Economics
Impact of Microfinance

Samuel Greenwald

Economics
Smartphone Industry, Economic Growth, and Globalization

Eric Guba

Economics, History
War and Economy: Growth from Disaster?

Ryan King

Economics
Economic Returns of Nutritional Reform

Valery Korin

Economics
Impact of Decentralized Financial System on the Economy

Alexis LaChapelle

Economics
Is Hosting the Olympics Economically Feasible?

Tucker Lippold

Economics
Economic Effects of Hurricanes

Anna Lussier

Economics, History
Exclusionary Economic Zoning

Thomas Maguire

Economics, Management
Renewable Energy Markets

Claire McCarthy

Economics, International Affairs
Permit Trading Systems: California and Europe

Matthew McGorty

Economics
Income Inequality and Crime

Julianne Silk

Economics
Health Care Market: U.S. and Europe

Grant Smith

Economics
Economic and Social Effects of Casinos

Sydney Speaks

Economics
Social Welfare System and Low-Income Workers

Kaela Sweetland

Economics, History
School Choice and Student Achievement

Stephen Taylor

Economics, Marketing
Cryptocurrency and Monetary Policy

Sergii Tcharkovski

Economics
Fighting Poverty in the U.S.: Government Programs

Andrew Tsan

Economics
Technological Change and Economic Growth

Bradley White

Economics, Finance
Health Care Spending in the U.S.

Paul College, Great Hall
11 a.m.–12:30 p.m.

Bachelor of Science in Economics

Adviser: Aziz Saglam

Slater Boothroyd

Economics

Renewable Energy Consumption and Economic Growth

Ryan Buckley

Economics

Economic Impact of the Newly Constructed Sports Stadiums

Haemee Choi

Economics

Economic Analysis of Female Professional Gaming

Maxwell Clements

Economics

Marijuana Legalization: Effects on the Housing Market

Maximilian Hochschwender

Economics

Ubernomics: Economic Efficiency of the Rideshare Market

Justin Kissell

Economics

Tax Reform and Its Effects

Andrew Lalli

Economics

Soft Diplomacy and Trade

Victoria Lorvig

Ecogastronomy, Economics

Preferences for Produce: A Comparison of Organic and Local

Myles Marchand

Economics

Fiscal Austerity: Short-Term and Long-Term Implications

Angelyn Masters

Economics, Sustainability

Gender Pay Discrimination in Athletics

Jay Mousseau

Economics

Effects of Minimum Drinking Age Laws on the Mortality Rates

Phuoc Thien Anh Nguyen

Economics, Mathematics

Corruption and Inward Foreign Direct Investment: A Panel Analysis in Asia

Gina Occhipinti

Economics

The Sharing Economy: A Good Substitute for Incumbent Firms?

Marissa Parker

Economics

Factors Affecting Arts Attendance

Thomas Perkins

Economics

Impact of Social Media on Relationships in Different Age Groups

Michael Polizzotti

Economics

The Amazon Effect: Fulfillment Centers and Local Communities

Joshua Price

Economics

Saving for a Stable Retirement

Joshua Roberge

Economics

Opioid Medication and the Heroin Epidemic

William Santora

Economics

Economic Effects of the Legalization of Marijuana

Gregory Servaes

Economics

Economic Analysis of the Salaries of NBA Players

Michael Simpson

Business Administration

Presidential Tweets: Impact on the U.S. Economy

Joseph Taglilatela

Economics

Decreasing Birth Rates, Labor Market, and Immigration Policies

Benjamin Vitale

Economics

Funding High School Athletics Programs

Andrew Ware

Economics, Philosophy

Automation and Productivity Growth

Logan Whalley

Economics

Net Neutrality and the Telecommunications Industry

Peter White

Economics

Student Loans, Household Consumption, and Savings

Charles White

Economics

The Wage and Employment Dynamics of Minimum Wage Workers

Chandler Wishart

Economics

Econometric Analysis of the National Hockey League and Fan Attendance

Paul College, Second Floor
Graduate Lounge
1–2:30 p.m.

Bachelor of Arts in Economics, Session II

Adviser: Robert Mohr

Kyle Bairos

Economics

Does the Minimum Wage Help the Working Poor?

Samantha Barrett

Economics

The Economic Burden of Opioid Abuse in Massachusetts

Isaiah Bickham

Economics

How Financial Aid to Low-Income Students Affects Academic Performance

QiQi Chen

Economics

A Study of the Financial Crisis of 2007–2009: Housing Crisis and Mortgage Crisis

Alexander Cohen

Economics

Northern Pass Analysis

Brian Cotillo

Business Administration, Economics, Finance

The 2008 Financial Crisis: Effectiveness of Government Intervention

Connor Courtwright

Economics, Finance
Economic Impacts of a Manipulated Minimum Wage

Derek Fung

Economics
Cryptocurrency and Inflation

Connor Garside

Economics
Understanding the Trend behind Increasing Income Inequality

Amanda Haraden

Economics
Parental Leave and Labor Supply

Christopher Hayden

Economics
Economics of Legalizing Prostitution

Huaiyu Kang

Economics
Delegated Purchases and the Gray Market

Rebecca Kendall

Economics
Impact of Immigration on Northern New England

Cory Melnick

Economics, Finance
Index Funds: Practical Investing for the Un-American?

Lukas Moeri

Economics
Economics and Urban Planning: Boston 2030

Samuel Paris

Economics, Management
Effects of Healthcare Systems on Household Inequality

Justin Poisson

Economics, International Affairs
Helmetless Motorcyclists: A Fiscal Death Wish?

Stephen Polhemus

Economics
Economics of Building a New Casino

Patrick Radford

Economics
An Economic Analysis of Solar Panels in Public Policy

William Scherneck

Economics
The Effects of Enacting the Trans-Pacific Partnership on the Automotive Industry

Chelsey Scovil

Economics, International Affairs
Comparative Analysis of Drug Policies around the World

Seth Wyskiel

Economics
Economic Analysis of New England Fisheries and Their Effect on Tourism

**Paul College, Great Hall
1-2:30 p.m.**

Multidisciplinary Poster Session

Kathryn Aiken

Business Administration
A Better Model for Making Maple Syrup
Adviser: Andrew Earle

Nicholas Bouchard

Accounting, Business Administration, Finance
The Market Reaction to Employee Bonuses Derived from Tax Reform Synergies
Adviser: Stephen Ciccone

Marina Bowie

Economics, Sustainability
Assessing the Economic Impacts of Climate Change on New England Outdoor Recreation and Tourism
Adviser: Robert Mohr

Scott Brockelbank

Business Administration
How Cryptocurrencies Will Affect Recovery Efforts in a Recession
Adviser: Stephan Shipe

Venus Chau

Business Administration, Information Systems and Business Analytics

Elliot Judware

Information Systems and Business Analytics, Sustainability

Sean McLaughlin

Information Systems and Business Analytics

Maria Spanos

Business Administration, Information Systems and Business Analytics, Management

Billington Tong

Business Administration, Finance, Information Systems and Business Analytics
Supply Chain Visualization for Global Aquaculture Alliance
Adviser: Russell Miles

Quinn Connelly

Information Systems and Business Analytics, Marketing
NFL and NBA Fan Base Comparison and Analysis
Adviser: Billur Akdeniz

Patrick Doyle

Finance, Information Systems and Business Analytics

Eric Gosselin

Information Systems and Business Analytics
Cryptocurrency Disrupting Global Economy
Adviser: Kholekile Gwebu

Kayla Farren

Finance, Marketing
Sports Celebrity Influence on the Behavioral Intentions of Generation Z
Adviser: Nelson Barber

Matthew French

Finance, International Business and Economics
Labor Migration and the Effect on EPL Wages
Adviser: Loris Rubini

Jack Goss

Entrepreneurial Studies, Marketing

Andrew Grondin

Keelan McCoole

Entrepreneurial Studies, Information Systems and Business Analytics
pop[U]lace: A Better Ticketing Experience
Adviser: Kholekile Gwebu

Kara Grandmaison

Psychology
*Challenging "Convenience" Samples:
 Work Motivation in Student vs. Full-Time
 Employees*
 Adviser: Jennifer Griffith

Jacquelyn Grinnell

Business Administration, Finance,
 Marketing
*The Role of Self-Esteem on Brand-
 Switching Behavior*
 Adviser: Danielle Brick

Claire Hawkes

Finance
*Department of Labor Fiduciary Rule:
 How Will It Affect Financial Planners and
 Their Clients?*
 Adviser: Caitlin DeSoye

Victoria Lorvig

Ecogastronomy, Economics
*Preferences for Organic Food: Comparison
 of New Hampshire and Vermont
 Consumers*
 Adviser: Ju-Chin Huang

Samantha Mello

Business Administration, Finance, Infor-
 mation Systems and Business Analytics
*Data Breaches in Higher Education
 Institutions*
 Adviser: Kholekile Gwebu

Cory Melnick

Economics, Finance
The Fundamental Flaws of Bitcoin
 Adviser: Stephen Ciccone

Pamela Merriman

Information Systems and Business
 Analytics, Marketing
*Transference of Brand and Celebrity
 Associations*
 Adviser: Bruce Pfeiffer

Phuoc Thien Anh Nguyen

Economics, Mathematics
*Microfinance and Women's Empowerment:
 An Empirical Evidence in Vietnam*
 Adviser: Michael Swack

Justin Poisson

Economics, International Affairs
*Remittances and India: A Factor for
 Economic Growth?*
 Adviser: Yin Germaschewski

Jack Porter

Business Administration, Finance,
 Information Systems and Business
 Analytics
*Predictive Analytics for Student Loan
 Default Behavior: Understanding the
 Individual Features Separating Those Who
 Will Pay Back*
 Adviser: Seyed Ali Hojjat

Heather Price

Hospitality Management
*Do Hotel Guests Act According to Their
 Intentions as It Relates to Sustainability?*
 Adviser: Nelson Barber

Caley Prunier

Finance, Information Systems and
 Business Analytics
Mutual Fund Performance by Gender
 Adviser: Stephan Shippe

Malia Roberto

Accounting, Management
*Tax Abatements Given from Local
 and State Governments to Businesses:
 Disclosure's Effect on Transparency*
 Adviser: Linda Ragland

Ashley Scimone

Finance, Marketing
Off-Price Retail Consumer Profiles
 Adviser: Lin Guo

Jessica Selensky

Accounting
*Perceived Influence of Ethics Education
 on Making Judgments and Decisions in
 Business*
 Adviser: Linda Ragland

Courtney Shaw

Information Systems and Business Ana-
 lytics, Marketing
*Why Do Makers Make? Examining
 Designer Motivations on Thingiverse.com*
 Adviser: Matthew O'Hern

Drew Sullivan

Information Systems and Business
 Analytics
*Factors That Influence Millennials'
 Willingness to Share Sensitive Personal Data*
 Adviser: Kholekile Gwebu

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

Oral Presentations

Thursday, April 19

11:10 a.m.–2 p.m.

Peter T. Paul College Building

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 University and business leaders.

Paul College, Room G25

11:10 a.m.–12:30 p.m.

Mel Rines Angel Investment Fund

Adviser: Jeffrey Sohl

Kathryn Aiken
 Samantha Carlen
 Trevor Deane
 Zachary Doss
 Zachary Dresser
 Travis Hurley
 Ibrahim Imtiaz
 Michael Kaichen
 Arsalan Khan
 Amanda Lee
 Christopher Leondires
 Michael McCarthy
 Devin McMahon
 Francesca Molinari
 Ky Duyen Nguyen
 Matthew Norman
 Matthew Ross
 Michael Simpson
 Nicholas Stuart
 Jameson Whiteley
 Business Administration
 Patrick Doyle
 Finance, Information Systems and
 Business Analytics

Tristan Evarts
Chemical Engineering
Sean Hickey
Accounting
Colin Small
Dylan Wheeler
Computer Science
Andrew Ware
Economics, Philosophy
Peter White
Economics
Rachel Yee
Biochemistry, Molecular and
Cellular Biology

Paul College, Room 115
12:40–2 p.m.

Atkins Investment Group

Advisers: Stephen Ciccone and
Ahmad Etebari

Charles Andes
Accounting, Finance
Cameron Bean
Devin Cahill
William Cavanaugh
Maxwell Craig
Jeremy Dorrell
John Evans
Andre Filadelfo
Zachery Fitzgerald
Claire Hawkes
Logan Hoffman
Patrick Kelsey
Aaron LeLacheur
Julie Montgomery
Cullen Moore
Eric Munson
Kevin Murphy
Luke Palmer
Sean Ray
Brian Rivet
Brennan Ross
Anthony Santosuosso
William Saunders
Nicholas Savoia
Caroline Schmidt
Hanzla Sheikh
Patrick Thompson
Austin Wildes
Jake Yennaco
Finance

Michael Bechtold
Entrepreneurial Studies
Nicholas Bouchard
Accounting, Business Administration,
Finance
Kelley Brennan
Alexys Gilcreast
Jessica Selensky
David Selmer
Accounting
Scott Brockelbank
Business Administration
Eliot Coulter
Applied Mathematics
Matthew French
Finance, International Business and
Economics
Ciaran Mahon
Mathematics
Taylor McDonald
Psychology
Amelia Milonas
International Business and Economics
Charles White
Economics

**Paul College, Rooms 165, 175, 185,
and 215**
12:40–2 p.m.

***Marketing Workshop Oral
Presentations***

Adviser: Peter Masucci

Lindsey Andrulevich
Marketing
Kevin Johnson
Erin Marceau
Tyalar Pitta
Mia Sarowsky
Management, Marketing
Vincent Sparacino
Finance, Marketing
Werner Traut
German, Marketing
*NH Lodging and Restaurant Association:
Design and Develop Marketing
Programs to Increase Awareness of and
Grow Membership in This State-Wide
Professional Organization*

Nicholas Bailey
Communication, Marketing
Bronte Biron
Brian Holmes
Charlee O'Neil
Mathew Paulson
Marketing
Elizabeth Gourinovitch
Economics, Marketing
David O'Connor
Management, Marketing
*Wells Reserve at Laudholm Farm: Research
and Development of Marketing Programs
Aimed at Increasing Awareness of the
Science Being Conducted at This Wells,
Maine, Coastal Research Center*

Sophia Bastone
Isaiah Singer
Management, Marketing
Michael Decker
Michael Knight
Entrepreneurial Studies, Marketing
Morgan Finniss
Parker Gray
Eden Popek
Marketing
Jake Paschal
Finance, Marketing
*Vera Roasting Co.: Research and
Development of Marketing Programs
Aimed at Increasing Awareness and Sales
of This Heart-Healthy Coffee Producer*

Nicole Binney
Matthew Howard
Devan Miller
Jenna Stickel
Finance, Marketing
Logan Blake
Christa Jimenez
Marketing
Jack Goss
Entrepreneurial Studies, Marketing
*Timberland—Apparel Team: Research,
Design, and Develop Marketing
Programs to Help Build Market Share for
Timberland's Line of Apparel*

Julia Bjorkman

Information Systems and Business
Analytics, Marketing

Blake Carrico**Grant Castignola****Megan Hydorn****Sydney SanAntonio**

Marketing

Colin Martens**Haley Slack**

Finance, Marketing

Timberland—Trades Team: Research and Develop Marketing Programs to Help the Company Build Timberland PRO Brand Loyalty among Workers in the Trades

Rachel Blackwell**Nicholas Schlosstein****Nicholas Silvia**

Marketing

Sarah Heath**Peter Martens****Reilly Williams**

Finance, Marketing

Caroline Muse

Information Systems and Business
Analytics, Marketing

Revision Military: Research and Development of a Marketing Program to Promote and Manage Corporate Philanthropic Giving

Samantha Blaine**Jaylyn Eaton****Erin Kelley**

Management, Marketing

Michael Giannone**Olivia Legendre**

Finance, Marketing

Morgan Kennedy**Timothy Mahoney**

Marketing

Shoals Marine Lab: Research and Development of Marketing Programs to Increase Awareness of and Registrations for the Science Courses Offered at This UNH-Affiliated Marine Lab on Appledore Island

Nicholas Blais**Rachel Pruyn**

Marketing

William Bradley

Marketing, Political Science

Nicholas LoConte

Entrepreneurial Studies, Marketing

Robin Mosher**Nicholas Reynolds**

Management, Marketing

Courtney Shaw

Information Systems and Business

Analytics, Marketing

Paul College Entrepreneurial Studies Program: Research and Development of Marketing Programs to Increase Awareness of and Interest in Selecting This Course of Study Option at the College

Katie Bostridge

Information Systems and Business

Analytics, Marketing

Christina Cunningham**Kevin Kekejian****Courtney Lamers****Darren Sayer**

Marketing

John Dray**Mackenzie Galli**

Management, Marketing

NH Fire Academy and EMS: Research, Design, and Develop Marketing Programs to Increase Awareness of and Participation in the Educational and Practical Training Programs Offered by the Academy

Alexis Brais**Robert Burnett****Januari Chandra****John Riley**

Marketing

Jessica DeMarco

Management, Marketing

Kayla Farren

Finance, Marketing

Montana Sullivan

Art: Studio Art, Marketing

The Music Hall: Research, Design, and Development of Marketing Programs Aimed at Increasing Membership at This Historic, 140-Year-Old Theater in the Heart of the City of Portsmouth, NH

Jennifer Brisebois

Marketing, Theatre

Brooke Brundage

Finance, Marketing

Brendan Carroll**Christina Crosby**

Management, Marketing

Ryan Connolly**Brett Rice**

Marketing

Maria Spanos

Business Administration, Information Systems and Business Analytics, Management

Albacore Museum: Research, Design, and Development of a Variety of Marketing Programs Aimed at Increasing Awareness of and Attendance at This Historic, Restored Submarine Museum

Sean Brodeur**Mary Flaherty****Olivia Giatrelis****Kelly Lonergan**

Marketing

Nicholas Logiudice**Francesca Lorusso**

Entrepreneurial Studies, Marketing

Jacob Shah

Management, Marketing

UNH Student Accessibility Services: Design and Development of Marketing Programs to Increase Awareness and Promote This Student-Focused Department at the University

Marco Caparrotta

Marketing

Adam Clark**Caitlin Russell**

Management, Marketing

Joseph Deletesky**Chloe Kahn**

Information Systems and Business

Analytics, Marketing

Brian Ellis**Madison Nash**

Finance, Marketing

Caree Pitts

International Business and Economics, Marketing

DermSpectra: Design and Develop Digital Marketing Programs to Increase Awareness and Sales for This New, Whole Body Skin Imaging Company

Quinn Connelly
Allyson Masson
Kaitlyn Rosenholm
 Information Systems and Business
 Analytics, Marketing
Connor Dever
Hannah Igoe
 Marketing
Frank Perullo
 Information Technology, Marketing
Isaac Tousley
Lisa Wedsjo
 Finance, Marketing
HubSpot: Research and Development of Marketing Programs Aimed at Increasing Awareness of and Registration at HubSpot Academy

Allyson Couture
 Art: Studio Art, Marketing
Hannah Dempsey
Richard Edson
Jack Haight
 Marketing
Andrew Ruszczyk
Michael Trovato
 Management, Marketing
Stephen Taylor
 Economics, Marketing
NH Made: Research and Development of Materials to Better Utilize Social Media Marketing to Increase Awareness of the Organization's Efforts to Sell NH-Made Products

Sarah Davis
Pamela Merriman
 Information Systems and Business
 Analytics, Marketing
Matthew Garrell
 Finance, Marketing
Jared Healy
Joseph LaMaina
 Entrepreneurial Studies, Marketing
Carly Hilton
 Marketing
Julia Segal
 International Business and Economics, Marketing
Digital Marketing Center: Research and Development of Marketing Programs Designed to Increase Awareness and Enrollments at the Seacoast Area Non-Profit Educational Organization

Ariana DeFelice
Maxwell Parenteau
Lauren Visconti
Thomas Watters
 Marketing
Jacquelyn Grinnell
 Business Administration, Finance, Marketing
Brendan Hebert
 Information Systems and Business
 Analytics, Marketing
Nicholas Largy
 Entrepreneurial Studies, Marketing
Enterprise Holdings: Research, Design, and Development of Marketing Programs Aimed at Helping the Company Re-Brand as a "Total Transportation Solution" Provider

Patrick Deren
April Desmarais
Lyndsey England
Matthew Torrey
 Management, Marketing
Sarah Johnston
Timothy Scolaro
 Entrepreneurial Studies, Marketing
Isabelle Riley
Jason Underhill
 Marketing
Center for Family Business: Research and Development of Marketing Programs to Increase Awareness of Programs Offered by the Center to Help Family-Run Businesses and to Grow Membership

Parker Dukas
 Entrepreneurial Studies, Marketing
Katharine Ettinger-Curnan
Ariana Magowan
Zachary Tavano
 Marketing
Marissa Kilbreth
Talia Matrumalo
 Information Systems and Business
 Analytics, Marketing
Joshua Krapf
 Finance, Marketing
Jack Sullivan
 Marketing, Psychology
Stump Chunks: Research, Design, and Development of Marketing Campaign Elements Aimed at Increasing Sales of This NH Wood Products Company

Aisha El-Pahlawy
Taylor MacElhiney
Timothy Riehl
 Marketing
Brady Marchewka
 Management, Marketing
Matthew Milward
 Entrepreneurial Studies, Marketing
Ashley Scimone
 Finance, Marketing
NH Scottish Highland Games and Festival: Research, Design, and Develop Marketing Programs to Increase Awareness of and Attendance at This Annual Event

Henrique Ferreira
Holly McWalter
 Management, Marketing
Michael Hoffman
 History, Marketing
Andrea Jaskulski
 Information Systems and Business
 Analytics, Marketing
Elizabeth Johnston
 Marketing
Stephen Kelley
 Finance, Marketing
Kirsten Payne
 Marketing, Communications
Relyco: Design and Develop Marketing Campaign Elements Targeting the Hospitality Industry for This Dover, NH, Specialty Paper Company

Aislinn Field
Colleen Keating
Nicole Locore
 Finance, Marketing
Taylor Frederick
 Marketing
Ian Heath
 Management, Marketing
Hannah Parker
 Hospitality Management, Marketing
Patrick Toomey
 Information Systems and Business
 Analytics, Marketing
Portsmouth 400: Research, Design, and Development of Marketing Programs and Activities Designed to Celebrate the 400th Anniversary of the Settlement of Portsmouth, NH

Worthy Gardner
Benjamin Hallman
Liam Regan
Zachary Soto
 Marketing
Andrea Lozowski
 Management, Marketing
Josefina Ondo Baca
Nicole Theriault
 Information Systems and Business
 Analytics, Marketing
Hayden Spitz
 Entrepreneurial Studies, Marketing
Baby-Led Sleep: Research, Design, and Develop Marketing Programs to Increase Awareness of and Grow Sales for This Parent-Oriented Educational and Consulting Business

UNH Manchester URC Cinema Arts Day

Thursday, April 19
11 a.m.–1 p.m.
Pandora Mill, Room 456
88 Commercial St., Manchester

The UNHM Communication Arts program has a production track in which students complete introductory and advanced course work in video production, scriptwriting, audio production, film aesthetics, and documentary production. The student films and scripts illustrate student work at different stages in the curriculum.

Alissa Cate
Matthew Fairfield
 Communication Arts
Shortcut
 Adviser: Anthony Tenczar

Alissa Cate
 Communication Arts
Stop the Drop
 Adviser: Anthony Tenczar

Logan Frye
 Communication Arts
Best Friend—2 Minute Short Film
 Adviser: Anthony Tenczar

Logan Frye
 Communication Arts
The Pencil Genie—60 Second Audio Spot
 Adviser: Anthony Tenczar

Bradford Herrick
 Psychology
Come to New Haven
 Adviser: Anthony Tenczar

Robert Hill
 Communication Arts
Top of the Morning to Ya
 Adviser: Anthony Tenczar

Johnathan Lemitelamy
Hunter MacDowell
Christopher Perez
Kyle Sanborn
 Communication Arts
Mama's Boy
 Adviser: Anthony Tenczar

Hugh Meadows
 Psychology
Cargo Pant Awareness PSA
 Adviser: Anthony Tenczar

Christopher Perez
 Communication Arts
The Cinematic Influences of David Lynch
 Adviser: Jeffrey Klenotic

Cayla PerkinsGoodrie
 Communication Arts
The Few. The Proud. The 'I Was Going to Join the Military'
 Adviser: Anthony Tenczar

Joseph Riley
 Communication Arts
Prove Them Wrong
 Adviser: Anthony Tenczar

Kyle Sanborn
 Communication Arts
Creativity in the Modern Age
 Adviser: Jeffrey Klenotic

Sarah Starry
 Communication Arts
Commercial Ad: Gerbone Antibacterial Sanitizer
 Adviser: Anthony Tenczar

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

Charles & Miriam Nelson Poster Competition

Thursday, April 19
12–2 p.m.
Peter T. Paul College Building
Rooms G35 and G45

This poster competition gives students an opportunity to showcase their research into entrepreneurship. Teams have three minutes to present their business idea, followed by three minutes of Q&A with the judges.

History Department Undergraduate Research Conference

Thursday, April 19
12:15–2 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.

MUB, Room 338

Institutions, Infrastructure, and Industry in 19th- and 20th-Century America

Moderator: Kathy Kottaridis

Kathleen Clark
 Political Science

Dorothea Dix and the Institutionalization Movement of the 19th Century
 Adviser: Elizabeth Mellyn

Megan Hartnett

Economics, History
Low-Lying Homes for Low-Income Families: The Internal Migration of the Katrina Victims of New Orleans
 Advisers: Elizabeth Mellyn, Lucy Salyer

Kelly Pedersen

History
Small Town Mail: The Post Office in 19th-Century Loudon, New Hampshire
 Adviser: Jessica Lepler

Brian Rafferty

History
Catching Up: The Irish Influence on the American Fishing Industry
 Adviser: Lucy Salyer

MUB, Room 302

Lincoln's Rhetoric and New Perspectives on African American History

Moderator: Mark Lane

Cali Conroy

History
The Correlation between the Black Panther Party and the Black Lives Matter Movement
 Adviser: W. Jeffrey Bolster

Crystal Napoli

History, Justice Studies
From Deportee to Exonerate? Marcus Garvey and the Elusive American Apology
 Adviser: W. Jeffrey Bolster

Shawna O'Neil

History, Political Science
Americans First: African American Agency in Preventing Colonization
 Adviser: W. Jeffrey Bolster

Shawna O'Neil

History, Political Science
Legal and Logical Rhetoric: Abraham Lincoln and the American Presidency
 Adviser: J. William Harris

MUB, Room 340

Telling Tales about Identity: From 'Moorish' Spain to the Broadway "Hamilton"

Moderator: David Steelman

Christian Gum

History
Heirs to the Frontier: Examining James Fenimore Cooper's Influence on Leo Tolstoy
 Adviser: Cathy Frierson

Elisabeth Iacono

History
Friend from France: The Popular Image of Lafayette in Early America
 Adviser: Janet Polasky

Daniel Novak

History
Uncle Sam and the Fatherland: An Exploration of German-American Identity in World War I
 Adviser: Elizabeth Mellyn

Charlotte Skala

History
The "Hamilton" Effect: How One Musical Made the Founding Fathers Cool, and What That Means for Historic Sites and the Academic World
 Adviser: Jessica Lepler

Matthew Sweeney

History
How Contemporary Spanish Chroniclers Perceived the Moors in Iberia: 1031-1157
 Adviser: David Bachrach

The Naked Arts—Creativity Exposed

Act II

Thursday, April 19
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.

Rachael Downs

Theatre
Lunch by a Cornfield
 Adviser: Thomas Payne

Samantha Elsaesser

Art: Studio Art

BFA Thesis Work with a Concentration in Photography

Adviser: Jennifer Moses

Molly McKay

Theatre

From the Sofa to the Stage: An Investigation of Drama Therapy and the Misconceptions Surrounding It

Adviser: Raina Ames

Emily Wernig

Art: Studio Art

BFA Thesis Work: Connecting Drawing and Ceramics

Adviser: Jennifer Moses

Philosophy Department Undergraduate Research Conference

**Thursday, April 19
4–7 p.m.**

Hamilton Smith Hall, Room 240

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

Anna Allen

Philosophy, Sustainable Agriculture and Food Systems

New Hampshire Indigenous Food Justice

Adviser: Paul McNamara

Eva Ford

Communication, Philosophy

Creating Digital Realities

Adviser: Nicholas Smith

Jonathan Mix

Philosophy

Ethics in Neuroscience

Adviser: Willem deVries

Eden Suoth

Mathematics, Philosophy

How Do Different Conceptions of Power Affect the Role of Apologies within Society?

Adviser: Nicholas Smith

Andrew Ware

Economics, Philosophy

Algorithms and Automation: The Implications of Human/Artificial Intelligence Collaboration

Adviser: Nicholas Smith

Rory Wilson

Philosophy

It Is Not Just a Joke: An Ethics to Stereotyping, Slurs, and Offense in the Language of Humor

Adviser: Charlotte Witt

All Colleges Undergraduate Research Symposium

Welcome Breakfast

Friday, April 20**9–9:30 a.m.****Memorial Union Building,
Granite State Room**

This informal gathering gives students, faculty and attendees an opportunity to visit with the UNH Provost and 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 20**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.

MUB, Theatre I**Anthropology and Critical Issues**

Moderator: Sara Withers

Caroline Aubry

Anthropology

Katherine Pendleton

Anthropology, History

Activist Anthropology: The Dirty War in Argentina

Adviser: Sara Withers

Jasmin Bach

Anthropology, Spanish

The Importance of Diversity at UNH

Adviser: Sara Withers

Caitlin Burnett

Anthropology, Sustainability

Ethnographic Methods and Business Sustainability

Adviser: Meghan Howey

Nicholas Davini

Anthropology

International Student Inclusion at UNH

Adviser: Sara Withers

Erik Swenson

Anthropology

Unhealthy Relationships on College Campuses

Adviser: Sara Withers

MUB, Room 330***Asia in the 21st Century: Old Problems, New Tricks***

Adviser and Moderator: Lawrence Reardon

Abraham DeMaio

Civil Engineering

Building a Continent: China's African Policy on Infrastructure

Kyle Mann

Political Science

Poverty and Regional Inequality: Chinese Coastal Development and the Regional Divide between Rich and Poor

Zachary Pafford

Political Science

Commissioner Lin and His Battle against Opium

Alden Skillings

Political Science

Japanese Xenophobia and Shinzo Abe's Labor Policies

John Teaver

Political Science

Chinese Dominance in the South China Sea

Weicong Zeng

Political Science

Chinese Leader's Influence on the Modernization of China

MUB, Room 203***Education, Population, and Markets: Comparative Perspectives***

Moderator: Maingi Solomon

Cara Buccini

Geography, International Affairs, Italian Studies

Education for All: World Bank Involvement in Post-Earthquake Haiti

Adviser: Helina Beyene

Ibrahima Camara

French, International Affairs

Education Declining in Senegal: Causes and Implications

Adviser: Funso Afolayan

Ziwei Liu

Communication, International Affairs
Two-Child Policy in China: Panacea or Placebo?

Adviser: Funso Afolayan

Christopher Rossi

Hospitality Management, International Affairs

Hotechnology: Technological Implementation and Its Effect on the International Hotel Market

Adviser: Funso Afolayan

Camden Warren

History, International Affairs

Education's Role in U.S. Perceptions of France and the Second World War

Adviser: Funso Afolayan

MUB, Room 233***Great Power Politics, At Home and Abroad***

Moderator: Jeannie Sowers

Lisa Dittman

International Affairs, Psychology
Korean Reunification: Limitations of the German Reunification Model in Its Application to the Korean Conflict

Adviser: Helina Beyene

Justin Klingler

International Affairs, Political Science
Venezuelan Political and Economic Crisis: Causes and Implications

Adviser: Funso Afolayan

Emily Luu

International Affairs, Sociology
The Great Firewall of China

Adviser: Helina Beyene

Kyle McCrory

International Affairs, Russian
Identity and Politics in Russia: The Strongman-Dictator

Adviser: Funso Afolayan

Samuel Wardwell

International Affairs, Russian
Russian Meddling in the U.S. 2016 Elections: Nature and Implications

Adviser: Funso Afolayan

MUB, Room 237***Identities, Representation, and Politics***

Moderator: Helina Beyene

Emily Haley

International Affairs, Sociology

Navigating Race: Representation of Biracial Experiences in Japan

Adviser: Helina Beyene

Carter Kelley

International Affairs, Spanish

Rejection of Catalanian Independence: Possible Reemergence of a Francoist Spain

Adviser: Funso Afolayan

Abigail Lehner

Communication, International Affairs

Rolling mit dem Rollstuhl (Rolling with the Wheelchair)

Adviser: Helina Beyene

Dylan Upton

German, Italian Studies

Plus-Size and Gender in Notable French Fashion: Fad or Championing Social Change?

Adviser: Helina Beyene

MUB, Room 332***International Security: Conflict and Change***

Adviser: Lawrence Reardon

Moderator: Abby Pokraka

Elizaveta Baykova

Political Science

Implementing Sanctions on States

Ryan Clasby

Political Science

Foreign Influence on the Domestic Political Process

Makaylah Johnson

Political Science

The Development of al-Qaeda

Charles Morvillo

Political Science

How Do Drug Cartels Succeed?

Kyle Noel

Political Science

*The Escalation of Tension between the U.S. and the DPRK***Rebecca Sennott**

Political Science

*Levels of Analysis for Democratization***MUB, Room 302****Multidisciplinary Session I:
Studies in Health, Treatment,
and Wellness****Moderator:** Jesse Morrell**Bailey Basiel**

Animal Science

Plasma Response of Histidine and Histidine Metabolites to Incremental Amounts of Abomasal Infusion of Histidine in Lactating Dairy Cows

Advisers: Andre Brito, Nancy Whitehouse

Kelly Davis

Psychology

Treatment Options for Opioid Addiction: Efficacy and Availability

Adviser: Elizabeth Caldwell

Amanda Gould

Biomedical Science

Analysis of Dental Public Health Programs' Influence on Dental Professional Shortage Areas

Adviser: Rosemary Caron

Nicholas Ritzo

Genetics

Taylor Schwartz

Biochemistry, Molecular and Cellular Biology

Diversity and Antibiotic Activity of Streptomyces Bacteria: Searching for Super-Killer Bacterial Strains

Adviser: Cheryl Andam

Giselle Wallace

Classics, Psychology

Myth and Trauma: Healing Power of Using Classical Texts in Book Groups for Combat Veterans

Adviser: Susan Curry

MUB, Room 338**Multidisciplinary Session II:
Studies in Culture, Politics, and
Society****Moderator:** Beth Kilinc**Krysta Gingue**

International Affairs, Political Science

Wine about It: How Climate Change Is Affecting International Wine Markets

Adviser: Elizabeth Carter

Kayla Goodwin

Sociology

Civic and Community Engagement at the University of New Hampshire

Advisers: Megan Brabec, Sharyn Potter

Kimberly Grove

Political Science

Evaluating New Judicial Federalism in Connecticut's Court System

Adviser: Susan Siggelakis

Rory O'Neil

International Affairs, Political Science

Coping Mechanisms and Cyclical Conflict in Yemen

Adviser: Jeannie Sowers

Nicholas Tatum

Homeland Security

Fourth Amendment Protections in the Digital Age

Adviser: Maeve Dion

MUB, Room 340**Multidisciplinary Session III:
Kinesiology and Communication
Sciences and Disorders****Moderator:** Robert Kertzer**Brittany Catcher**

Kinesiology

A Comparison of Head Impact Exposure in Two Youth Football Programs in Southern New Hampshire

Adviser: Erik Swartz

Christopher Cleary

Kinesiology

Postactivation Potentiation during Blood Flow Restricted Complex Training

Adviser: Summer Cook

Mikaela Frechette

Kinesiology

Corticomotor Function during Blood Flow Restricted Arm Crank Ergometry

Adviser: Summer Cook

Fallon Greene

Kinesiology

*Core Stability and Performance**Measurements in Collegiate Female and Male Lacrosse Players*

Adviser: Summer Cook

Kayla Hansen

Communication Sciences and Disorders

Sustained Attention and Fatigue in Adults with Concussions

Adviser: Amy Ramage

Nicholas Paul

Kinesiology

Are Great Outdoor Orientation Programs Facilitated by the Hormone Oxytocin?

Adviser: Brent Bell

MUB, Room 207**Parties, Populism, and Race****Moderator:** Funso Afolayan**Cruz Brito**

International Affairs, Spanish

Immigration in Hungary: The Hardline European Outlier

Adviser: Funso Afolayan

Claire McCarthy

Economics, International Affairs

Methodologies of Official and Unofficial Statistical Data and the Implications of Populist Politics in Argentina

Adviser: Helina Beyene

Jacqueline Ruggiero

German, International Affairs

Where Racism Meets Politics: A Study of the AfD Party in Germany

Adviser: Helina Beyene

Elena Ryan

International Affairs, Political Science,
Women's Studies
*Young Women in the White Supremacist
Movement: A Paradox*
Adviser: Helina Beyene

MUB, Room 304

***Social Franchising: A Powerful
Replication Model for Social
Enterprises***

Adviser: William Maddocks
Moderator: Faina Bukher

Chelsea Evankow

Biology, Women's Studies
*WSV: Collaborative Partnerships That
Empower Sustainable Businesses and
Communities*

Elizabeth Lapsley

Kiley McKenna
Nursing
*Global Partners in Hope: Bringing
Sustainable Medical Care to Rural Togo*

Rachel Vaz

International Business and Economics
*Livelihood Basix, Inc.: Seeking Market
Solutions for Farmers in Tanzania*

MUB, Room 334

***The Politics of Immigration:
Navigating Culture, Language,
and Identity***

Adviser: Funso Afolayan
Moderator: Smita Lahiri

Emma Berryman-Moore

Environmental and Resource Economics,
International Affairs
*French Exceptionalism and Immigration:
Implications for Discrimination and
Integration*

Olivia Bourdon

English, International Affairs
*Syrian Refugees and African Immigrants in
France: A Comparative Perspective*

Lorena Cruz

International Affairs, Spanish
Stories of the Salvadoran Diaspora

Elden Gray

International Affairs, Linguistics
*Language Programs for Immigrant
Children in Italy*

Aaron Promer

History, International Affairs
*Culture Shock: Nicaraguan Immigration and
Costa Rica's Changing Immigration Policies*

MUB, Room 336

***The Rhetoric of Activists,
Activism, and Social Protest***

Moderator: Jennifer Borda

Taylor Flutie

Communication
*Vanderpump Foundation to Stop the
Yulin Dog Meat Festival*
Adviser: Jennifer Borda

Erin McKenna

Communication
The Life and Legacy of Betty Friedan
Adviser: Jennifer Borda

Sriyaa Shah

Communication, Psychology
*The Parallel Characteristics between the
Oppressed Groups in America and India with
a Focus on African Americans and Dalits*
Adviser: Kate Zambon

Katherine Walker

Communication
The Legacy of Larry Kramer
Adviser: Jennifer Borda

MUB, Room 321

***The Video Essay: Transforming
Scholarship into Shareable
Multimedia***

Moderator: Michael Soha

Eva Ford

Communication, Philosophy
The Case for a Cultural Competency Course
Adviser: Michael Soha

Kaitlyn Lawson

Communication
*Two-Dimensional Love in a Three-
Dimensional World*
Advisers: Nora Draper, Michael Soha

Julia London

Communication, Women's Studies
Embarrassment and Social Organization
Adviser: Michael Soha

Christine Speranza

Communication
*Feminist Standpoint Theory and Its Real
Life Applications*
Adviser: Michael Soha

All Colleges Undergraduate Research Symposium

Poster Presentations, Session A

Friday, April 20
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.

Christine Aiello
 Geography
Air Pollution in Chengdu, China
 Advisers: Jennifer Brewer, Tu Lan

Spencer Bardwell
 Psychology
Benjamin Desrochers
Jenna Hannafin
 Justice Studies, Psychology
Are Your Parents Pushing You toward a Cushier Future? Drug Usage as a Mediator between Parental Legitimacy and Future Aspirations in Adolescence
 Advisers: Alexander Blandina, Ellen Cohn, Donovan Kelley

Jeffrey Baron
Riley Boss
 Anthropology
Elizabeth Schwaner
 Anthropology, French
Indigenous Cultural Heritage and History in New Hampshire
 Adviser: Svetlana Peshkova

Samantha Berman
 Anthropology
Ancient Faces: How Your Nose Got Its Shape
 Adviser: Rebecca Gibson

Melanie Bertolino
 Biomedical Science
Behavioral Analysis of d18a Transgenic Mice
 Adviser: Arturo Andrade

Olivia Black
 Nursing
From Care Home to Community: The Impact of Connection on Dutch Elder Care and Well-Being
 Adviser: Michele Loos

Julia Boisselle
 Nutrition
Relationship between Binge Drinking Frequency and Diet among College Students
 Adviser: Jesse Morrell

Courtney Bond
 Neuroscience and Behavior
Catherine Peraro
 Biomedical Science
Stephen Zhang
 Psychology
Using Motion-Induced Blindness to Determine Contrast Asymmetries of ON- and OFF-Cells
 Adviser: William Stine

Samantha Both
Morgan Howard
 Psychology
Alyssa McCarren
 Justice Studies, Psychology
Evaluation of Help-Seeking: Prevalence of Discriminatory Behavior
 Advisers: Victoria Banyard, Katie Edwards, Andrew Rizzo

Juandiego Carmona
 Psychology
Cultural Variations in Narrative Discourse Style between U.S. and Colombian Children
 Adviser: Michelle Leichtman

Nicole Charron
 Zoology
*The Effect of a High Calcium Diet on House Cricket (*Acheta domestica*) Mobility*
 Adviser: Leslie Curren

Caroline Cherry
 Communication Sciences and Disorders
Sex Differences in Internalizing and Externalizing Behaviors in Children with Autism Spectrum Disorder
 Adviser: Kathryn Greenslade

Kristian Comer
Francesco Alessandro Mikulis-Borsoi
 Computer Science
YouScheduler—Simplified Course Scheduling
 Adviser: Radim Bartos

Yusuf Ebrahim
 Biomedical Science
Effects of the Mortalin Inhibitor MKT-077 on the Tumor Suppressor p53 in Neuroblastoma IMR-32 Cells
 Advisers: Paul Tsang, Charles Walker

Travis Fischer
 Biochemistry, Molecular and Cellular Biology
Role of GLI3 in Diffuse Large B Cell Lymphoma (DLBCL)
 Adviser: Sherine Elsawa

Victoria Franks
 Justice Studies, Political Science
Women in Legislation
 Adviser: Dante Scala

Sigurdur Geirsson
 Political Science
DNKY: Smart Politics
 Adviser: Dante Scala

Meghan Gillespie
Rachel Rafferty
Brooke Soderberg
 Biology
*Measuring Somatic Mutation Rates in the Model Organism (*Caenorhabditis elegans*) to Further Understand Cancers and Human Disorders*
 Adviser: John Collins

Anna Haber
 Genetics
Understanding the Role of Polyamines in Rice under Drought and Salt Stress
 Adviser: Subhash Minocha

Sean LaMontagne
 Political Science
Effects of Gun Laws by State
 Adviser: Dante Scala

Elise Lacasse

Nutrition

Relationship between Reported Sleep and Physical Fitness among College Students

Adviser: Jesse Morrell

Meghan Linehan

Health Management and Policy

Falls Prevention in Older Adults: Reducing Effects of Risk Factors through a Matter of Balance and Tai Ji Quan: Moving for Better Balance® Programs

Adviser: Semra Aytur

Mackenzie Macuch

Occupational Therapy

An Exploratory Study on Facilitators and Barriers to Aging-in-Place by Seniors in New England

Advisers: Sajay Arthanat, John Wilcox

Jenna Mahon

Human Development and Family Studies

International Issues of Children and Adolescents

Adviser: Maureen Ittig

Deeandra Miller

Geography

Geography of Happiness

Adviser: Dante Scala

Madison Milton

Political Science

Variables Regarding Views on Abortion

Adviser: Dante Scala

Nicole Moody

Nursing

Effects of Music Therapy on Distress in Patients Receiving Outpatient Chemotherapy

Adviser: Raelene Shippee-Rice

Matthew Morris

Wildlife and Conservation Biology

Masking Effect of Anthropogenic Noise in Predatory Detection

Adviser: Leslie Curren

Eric Newton

Health Management and Policy

Concussions in Female Youth Soccer Players

Adviser: Anne Jamieson

Abby Oostendorp**Michael Palazzolo****Sophie Topouzoglou**

Psychology

The Effects of Spatial Frequency on Stereoacuity: A Replication of Schor and Wood

Advisers: Andrew Kitt, Joseph LaBarre, William Stine

Carly Orlacchio

Nutrition

Evaluating Perceptions of Athletic Performance between Body Composition Measurements Using Air Displacement Plethysmography in Male Collegiate Athletes

Adviser: Kevin Pietro

Elizabeth Pardy

Political Science

Abortion in Relation to College Education and Income

Adviser: Dante Scala

Trey Patno

Biochemistry, Molecular and

Cellular Biology

Temporal Regulation of an Angiogenic Inducer in Human and Bovine Ovarian Cells

Adviser: Paul Tsang

Nicole Pearl

Social Work

The Experiences of First-Generation College Students at UNH

Adviser: Mary Banach

Dana Prisloe

Social Work

Social Work Education and Mental Health Stigma

Adviser: Cory Morton

Kelsey Santello

Justice Studies, Psychology

A Mixed Method Study of Youth Experiences Witnessing Bias Victimization Online, Including Associations with Emotional Distress

Advisers: Lisa Jones, Kimberly Mitchell

Elizabeth Sibson

Political Science

Relationship between Party Identification and Trust in the Scientific Community

Adviser: Dante Scala

Peter Sirkovich

Political Science

General Happiness

Adviser: Dante Scala

Evan Smith

Justice Studies, Sociology

LGBTQIAP+ University Students and Likelihood of Self-Harm

Adviser: James Tucker

Marin Strong

Nursing

Factors Influencing Care-Seeking Behaviors for Childhood Illness by Mothers in Nepal

Adviser: Gene Harkless

Brittany Sullivan

Health Management and Policy

Risk Factors of Military Personnel Becoming Opioid Dependent

Adviser: Semra Aytur

Elizabeth Suschana

Nutrition

Impact of Word Choice on Comfort Level of Male Collegiate Hockey Players during Body Composition Assessment

Adviser: Kevin Pietro

Adam Thorburn

Health Management and Policy

The Negative Impact of Sugar-Sweetened Beverages

Adviser: Semra Aytur

Shelby White

Political Science

Comparison of Confidence in Government Institutions

Adviser: Dante Scala

Sara White

Neuroscience and Behavior

Norepinephrine Transporter Phenotype Impacts Oscillatory Power during Cognitive Flexibility

Adviser: Robert Ross

MUB, Granite State Room**Advanced Technical Writing**

Adviser: Molly Campbell

Kayla Barron

English

Inside the Criminal Mind: Criminal Profiling Explained and Explored

Lilah Cherim

English

What's out There for English Majors? Exploring the Potential of a Mysterious Job Market

Linnea Gustafsson

Information Systems and Business Analytics

Threats Facing Bees: A Website

Adam Huynh

Biomedical Science, Neuroscience and Behavior

Epidemiology in EMS: A Website

Kara Macri

English Teaching

Professionalism and Wardrobe in the Workplace

Rachelle McKeown

Ecogastronomy, English

The Green Market: Online Options for Eating Well on a Budget

Brianda Mendez

Animal Science

Four Legs Are Better Than Two

Annmarie Picinich

Civil Engineering

A Study of the Tappan Zee Bridge Reconstruction

Alex Valencia

Nutrition

So You Want to Become a Professional Athlete? Craft Your Path to Pro

MUB, Granite State Room**Sustainability Dual Majors**

Brandon Allen

Management, Sustainability

Chloe Ford

Social Work, Sustainability

Angelyn Masters

Economics, Sustainability

Alexis Prinz

Environmental and Resource Economics, Sustainability

Analyzing the Waste Stream of Academic Buildings at UNH

Adviser: Nicole Tichenor

Marina Bowie

Economics, Sustainability

Drew Guilbault

Geography, Sustainability

Andrew Hartnett

English/Journalism, Sustainability

Molly Pagliuca

Social Work, Sustainability

UNH Sustainability Walking Tour

Adviser: Vanessa Levesque

Kevin Dobson

Alexander Duffy

Environmental and Resource Economics, Sustainability

Jacob Moore

Marine, Estuarine and Freshwater Biology, Sustainability

Athena Valkanos

Sociology, Sustainability

Campus-Community Resilience: Preparing Our Home for the Future

Adviser: Cameron Wake

Danielle Flanagan

Psychology, Sustainability

Elliot Judware

Information Systems and Business

Analytics, Sustainability

Keara Smith

Management, Sustainability

Jocelyn Vierzen

Communication, Sustainability

The Dirty Truth: Trash in Residence Halls

Adviser: Nicole Tichenor

All Colleges Undergraduate Research Symposium

Oral Presentations, Session B

Friday, April 20

10:50 a.m.–Noon

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.

MUB, Room 330

Asian Studies: An Emerging Global Hegemon

Adviser: Lawrence Reardon

Moderator: Patrick Baga

Catherine Babbidge

Political Science

Trade: The Most Prominent International Dispute

Eric Dunn

Political Science

U.S. Tariffs on Chinese Products

Justin Klingler

International Affairs, Political Science

China: The Success of One Belt, One Road

Zachary Pafford

Political Science

Xi Jinping's Way Forward

Iain Saltzberg-Pollard

Political Science

Hegemonic Collapse

Cameron Sweeney

Political Science

War with China: Increasing Tensions Rise among Economic Powerhouses

MUB, Room 334

Asian Studies: Civil Rights and Conflict

Adviser: Lawrence Reardon
Moderator: Matthew Goduto

Nooran Alhamdan
Economics, Political Science
China and the Arabs: Chinese Attempts at Regional Influence in the Middle East and North Africa

Jordyn Haime
English/Journalism, International Affairs
The Growing Dangers of Reporting in China

Jordan Leikin
Political Science
Syria: The Pothole in China's Road

Douglas Marino
Political Science
China and Human Rights

Margaret Quick
Political Science, Women's Studies
Masterpieces or Simply Wedding Cakes? Exploring the Boundaries of Freedom of Speech through the United States Supreme Court Case Masterpiece Cakeshop v. Colorado Civil Rights Commission

MUB, Room 332

Asian Studies: Conflict and Deterrence in East Asia

Adviser: Lawrence Reardon
Moderator: Abby Pokraka

Tristen Bianco
Political Science
China's Blue Water Navy: Why the East Asian Superpower Plans to Assert Its Maritime Capabilities in Attempt to Disrupt the American-Centric International Order

Nelson Idahosa
Political Science
Disputes in the South China Sea

Orrin Judd
History, Political Science
How World War III Begins: China and the South China Sea

Sam Sires
Political Science
Global Implications of China's Increased Nuclear Deterrence Efforts

Sean Williams
Political Science
China's Military Expansion and Global Hegemony

MUB, Room 237

Challenges in Urban Environments, Health, and Development

Moderator: Thomas Safford

Krysta Gingue
International Affairs, Political Science
On the Outskirts: How the French Suburbs Face Disproportionate Inequality
Adviser: Helina Beyene

Chad Linehan
International Affairs, Spanish
Catholic Spain and Millennium Development Goals: An Advantage or a Handicap?
Adviser: Funso Afolayan

Shrimika Madhavan
Genetics, International Affairs
Genomics in Public Health: Current Challenges in the U.S. and India
Adviser: Funso Afolayan

Ivette Pujols
Civil Engineering
Preserving Cultural Architecture in a Globalized Hong Kong: A Case Study of Central Police Station
Adviser: Helina Beyene

Celine Rogers
Geography, International Affairs
Waste Management in Senegal: Plans for the Future of Dakar
Adviser: Helina Beyene

MUB, Room 321

Collected Papers in Communication Research

Moderator: R. Michael Jackson

Victoria Gleixner
Communication
The Power of Classical Music
Adviser: R. Michael Jackson

Robert Maynard
Communication, Linguistics
Tradition and Technology: Choices in Film
Advisers: Michelle Gibbons, R. Michael Jackson

Kerry Munson
Communication
Music in Our Everyday Lives
Adviser: R. Michael Jackson

Kellie Reardon
Communication
Communication within the Australian Workplace vs. the American Workplace
Adviser: R. Michael Jackson

MUB, Theatre I

Cultural Heritage in Focus

Moderator: Svetlana Peshkova

Jeffrey Baron
Emma Pearce
Anthropology
Bears Ears National Monument: Oil vs. Culture
Adviser: Sara Withers

Jeffrey Baron
Riley Boss
Anthropology
Elizabeth Schwaner
Anthropology, French
Indigenous Cultural Heritage and History in New Hampshire
Adviser: Svetlana Peshkova

Crystina Friebe
Anthropology, Justice Studies
Mapping Lost Early Colonial Cemeteries in the Oyster River Watershed
Adviser: Meghan Howey

Morgan Sansing

Human Development and Family Studies
Indigenous Heritage of New Hampshire
 Adviser: Svetlana Peshkova

MUB, Room 233**Culture, Media, and Language in a Globalizing World**

Moderator: Daniel Chavez

Robin Beaulieu

International Affairs, Spanish
The Test of Time: Peruvian Indigenous Languages and Cultures in a Globalizing World
 Adviser: Funso Afolayan

Fatimah Nouilati

English/Journalism, International Affairs
Mainstream Media Provoking Audiences during the Muslim Ban: Discourse Analysis of Al Jazeera, Al Arabiya, Fox News, and CNN
 Adviser: Helina Beyene

Justin Poisson

Economics, International Affairs
Exploring Factors Related to French Students' Acquisition of English via the Diffusion of American Cultural Products and Economic Dominance
 Adviser: Helina Beyene

Chelsey Scovil

Economics, International Affairs
Cultural Inequality in Modern Portugal
 Adviser: Funso Afolayan

MUB, Room 336**Honors Papers in Communication Studies**

Moderator: Lawrence Prelli

Charlotte Harris

Communication, Spanish
Populism and the Press: Investigating the Relationship between Government and Media in Latin America
 Adviser: Michael Soha

Lindsay Kosel

Communication
A Tropic Understanding of Street Art as Social and Political Advocacy
 Adviser: Lawrence Prelli

Bailey Marshall

Communication, Women's Studies
Creating a Space to #SayHerName: How the #SayHerName Hashtag Created a Feminist Counterpublic
 Adviser: Jennifer Borda

Jamie Smith

Communication
No Laughing Matter: Failures of Satire during the 2016 Presidential Election
 Adviser: Michael Soha

MUB, Room 338**Multidisciplinary Session IV: Explorations in Science and Academia**

Moderator: Kate Gaudet

Emma Berryman-Moore

Environmental and Resource Economics, International Affairs
Surveying the NREN Department: Implications and Findings for Recruitment and Major Satisfaction
 Adviser: John Halstead

Kristian Comer

Francesco Alessandro Mikulis-Borsoi
 Computer Science
YouScheduler—Simplified Course Scheduling
 Adviser: Radim Bartos

Katherine Hyson

Neuroscience and Behavior
Sleep Quality's Effect on EEG Activity Underlying Information Processing during Motor Control
 Advisers: Ronald Croce, Robert Ross

Araya Lacy

Neuroscience and Behavior
The Relationship between Moral Reasoning and Theory of Mind Effective Connectivity
 Adviser: Robert Ross

MUB, Room 340**Multidisciplinary Session V: Navigating Life Cycles: Birth, Adolescence, and Elder Care**

Moderator: Catherine D'Auteuil

Colleen Bernard

Health Management and Policy
Social and Clinical Risk Factors Associated with Low-Risk Cesarean Deliveries among Births in the United States (2016)
 Adviser: Semra Aytur

Olivia Black

Nursing
From Care Home to Community: The Impact of Connection on Dutch Elder Care and Well-Being
 Adviser: Michele Loos

Julianna Fusco

Sociology, Women's Studies
Gender Role Orientations, Depression, and Substance Misuse in Late Adolescence and Early Adulthood
 Adviser: Karen Vangundy

Ashley Paige

English Teaching
Navigating a Darkening World: New Hampshire Trends in Young Adult Literature
 Adviser: Laura Smith

All Colleges Undergraduate Research Symposium

Poster Presentations, Session B

Friday, April 20
10:50 a.m.–Noon
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.

Marie Akiki

Biomedical Science

Localization of the 37a Isoform on the N-Type Presynaptic Calcium Channel Cav2.2 That Plays a Role in Anxiety

Adviser: Arturo Andrade

Marissa Anderson

Genetics, German

Metabarcoding Investigation of Extensive Dune Grass Die-Off in the Northeast

Advisers: Gregg Moore, William Thomas

Zoe Beausoleil

Neuroscience and Behavior

Effects of Housing Environment on Thermal and Mechanical Nociceptive Responses in Mice

Adviser: Arturo Andrade

Audrey Berenson

Biomedical Science

The Significance of Particle-Associated Vibrio parahaemolyticus in Oyster Contamination

Adviser: Stephen Jones

Rachel Berg

Classics, Recreation Management and Policy

I Skate, Therefore I Am: Athletic Identity amongst Collegiate Hockey Players

Adviser: Nathan Trautvein

Samantha Bogdahn

Neuroscience and Behavior

Testing the Sensory Ability of Canis lupus familiaris to Distinguish between Human Identical Twins

Adviser: Leslie Curren

Julian Brown

Biomedical Science

Histochemical Analysis of the Cannabinoid Receptor 1 (CB1) in Cholecystokinin (CCK) Positive Cells of the Spinal Cord and Trigeminal Nucleus

Adviser: Arturo Andrade

Eleni Bruzik

Political Science, Sociology

A Comprehensive Assessment of Attitudes and Practices Related to Gun Safety among Caregivers with Young Children

Adviser: Heather Turner

Bryce Cahill

Political Science

Income and Gun Control

Adviser: Dante Scala

Sydney Carlino

Health Management and Policy

New Hampshire High School Students' Prescription Drug Use and Associated Protective Factors and Risk Factors Including Adverse Childhood Experiences (ACEs)

Adviser: Semra Aytur

Thomas Caveney

Nutrition

Comparison of Diet Quality among College Students with and without a Disability

Adviser: Jesse Morrell

Matthew Ciccarello

Political Science

National Security and Public Opinion

Adviser: Dante Scala

Hannah Coffin

Biomedical Science

Mycosis Fungoides in a Fennec Fox (Vulpes zerda)

Adviser: David Needle

Stephanie Copeland

Biomedical Science

Population Structure and Dispersal of Prairie Warblers in Southern Maine and New Hampshire

Advisers: Adrienne Kovach, Matthew Tarr

Jamie Cormier

Alexis Giacco

Hannah Nordstrom

Hailey Raudat

Psychology

Ross Jones

Classics, Psychology

Attitudes and Beliefs on School

Environment: How Harassment,

Bullying, and Self-Harm Likelihood Affect Victimized Youth

Advisers: Victoria Banyard,

Katie Edwards, Andrew Rizzo

Kaidy Cornell

Nutrition

Comparing Body Mass Index, Body Composition, and Waist Circumference as Predictors of Health Risk in Male College Athletes

Adviser: Kevin Pietro

Tiana DiBenedetto

Nutrition

Analyzing Body Fat Percentage of Male Collegiate Athletes: Pre-Season, In-Season, and Off-Season Training

Adviser: Kevin Pietro

Jake Donahue

Biomedical Science

Investigating the Interplay between Angiogenic Regulators in the Developing Bovine Corpus Luteum

Adviser: Paul Tsang

Maura Donovan

Nutrition

Evaluating Perceptions of Dietary Quality between Body Composition Measurements Using Air Displacement Plethysmography in Male Collegiate Athletes

Adviser: Kevin Pietro

Sarah Douglas

Occupational Therapy

Sara Jane Roberts

Psychology

Maternal Caregiving and Preschoolers' Executive Functioning: The Role of the Co-Parent Relationship

Adviser: Jill Sherman

Patrick Doyle

Finance, Information Systems and Business Analytics

Eric Gosselin

Information Systems and Business Analytics

Cryptocurrency Disrupting Global Economy

Adviser: Kholekile Gwebu

Danielle Flanagan

Psychology, Sustainability

Jacqueline Melius

Justice Studies, Psychology

Plant the SEED and Watch It Grow: Women's Recovery in a Trauma-Informed Sober Living Home

Advisers: Katie Edwards, Katherine Lee

Nileesa Gautam

Biomedical Science

Social and Environmental Factors That Lead to Low Birthweight in Infants

Adviser: Semra Aytur

Emily Golomb

Biomedical Science

Intelligence in Sled Dogs: Are Leaders Really the Top Dogs?

Adviser: Leslie Curren

Juan Gomez-Rivadeneira

Neuroscience and Behavior

Identifying Cell-Specific Expression of Voltage Gated Calcium Channel Subunit Homologues in Drosophila melanogaster

Adviser: Arturo Andrade

Emily Haley

International Affairs, Sociology

Analysis of Recent Trends Amongst Same-Sex Married Couples in the United States

Adviser: Kenneth Johnson

Adam Huynh

Biomedical Science, Neuroscience and Behavior

Regulation of the Angiogenic Inducer, CCN1, by Heat-Inactivated Serum, in Human Tumor Granulosa Cells

Adviser: Paul Tsang

Kim Ip

History

Understanding Immigrants' Trust in Public Institutions

Adviser: Dante Scala

James Ippolito

Nutrition

Relationship between Multivitamin/Mineral Supplement Use and Presence of Metabolic Syndrome Biomarkers among College Students

Adviser: Jesse Morrell

Kelly Jacques

Psychology

Sarah Nordstrom

Justice Studies, Sociology

Jocks, Mathletes, and Band Geeks: Do Extracurricular Activities Affect Perceptions of Rule-Violating Behaviors?

Advisers: Alexander Blandina, Ellen Cohn, Donovan Kelley

Sydney Johnson

Biochemistry, Molecular and Cellular Biology

Hannah Stewart

Environmental Conservation and Sustainability

Examining Factors That Influence Biology Student Performance on Quantitative Tasks

Adviser: Melissa Aikens

Kira Kenny

Zoology

Lying Behaviors in Holstein and Jersey Breeds of Cows

Adviser: Leslie Curren

Emily Landry

Wildlife and Conservation Biology

Evaluating the Effect of Baiting on White-Tailed Deer Harvest in New Hampshire

Advisers: Daniel Bergeron, Peter Pekins

Elizabeth Lapsley**Kiley McKenna**

Nursing

Childhood Nutrition in the Rural Area of Agbelouve, Togo

Adviser: Gene Harkless

Kayla Lent**Laura Nussbaum**

Wildlife and Conservation Biology

How Do Female-Biased Sex Ratios Influence Male Resource Defense Behavior in Hissing Cockroaches?

Advisers: Leslie Curren, Daniel Howard

Lelia MacIver

Political Science

Modern Sexism and Women in the Workplace

Adviser: Dante Scala

Christine Masci

Recreation Management and Policy

Changing Attitudes towards Disability: The Impact of Taking a Disability Awareness Class

Adviser: Jennifer Frye

Kathleen O'Loughlin

Nursing

The Effect of ED Nurses' Perception of Addiction on Pain Management of Drug Users

Adviser: Joanne Samuels

Tyrus Parker

Psychology

The Great Recession's Impact on Demographic Trends in the Northeastern United States

Adviser: Kenneth Johnson

Hayden Proborowski

International Affairs, Political Science

Analyzing Right-Wing Populism in Rural New Hampshire during the 2016 Presidential Election

Adviser: Dante Scala

Ashley Prokopik

Nursing

Enhancing Bone Marrow Transplant Care and Survivorship through the Patient Experience

Adviser: Lisa Wesinger

Nicholas Ritzo

Genetics

Taylor Schwartz

Biochemistry, Molecular and Cellular Biology

Diversity and Antibiotic Activity of Streptomyces Bacteria: Searching for Super-Killer Bacterial Strains

Adviser: Cheryl Andam

Jessica Sexton

Animal Science

Lying Times, Feed Particle Size, and Rumination Correlated with Milk Production in Dairy Cattle

Adviser: Peter Erickson

Mary ShermanSustainable Agriculture and Food Systems
*Evaluation of the After-School Program**"Healthy Me, Healthy Earth"*

Adviser: Joanne Burke

Erin Stowell

Biology

John Taylor

Marine, Estuarine and Freshwater Biology

Jack Tremblay

Genetics

Exploring Toxin Production in Picocyanobacteria: An Investigation of Lab Culture and Natural Systems

Advisers: James Haney, Patricia Jarema

Caroline Sweny

Health Management and Policy

Early Careerists in Healthcare Administration

Adviser: Mark Bonica

Dylan Upton

German, Italian Studies

Fashion Diversity in French Ad Campaigns

Adviser: Helina Beyene

Chiara Vercellone

English/Journalism

Federal Budgeting Repercussions on Future Terrorist Attacks

Adviser: Dante Scala

Molly Wotton

Recreation Management and Policy

Including Students with Disabilities in High School Sports in Northern New England

Adviser: Robert Barcelona

Tracy Yeung

Biomedical Science

GLI3 Mediated Inflammation in Human and Mouse Cells

Adviser: Sherine Elswa

MUB, Granite State Room**Advanced Technical Writing**

Adviser: Molly Campbell

Maxwell Clements

Economics

*Sports Media Online—The Boston Celtics***Nicole Collin**

Sociology

*Portrayal of Women in Sociology***Michaela Dunn**

Wildlife and Conservation Biology

*Applying the Concept of One Health***Zhangxi Feng**

Mechanical Engineering

*Edu-ReForums: International Idea Hub for Education Discussions***Connor MacLean**

Communication

*CTE and Professional Football***David Moore**

English

*Preparation for First Year English Major Degrees***Mary Mullins**

Biomedical Science

*Exploring the World of Alternative Medicine: A Website***Shawna O'Neil**

History, Political Science

*Teacher Freedom of Expression in Public Schools***Arianna Robichaud**

English Literature

*The Vegan Agenda: Alternative Protein Sources and Sustainability***Rachel Smithline**

Anthropology

Monstrous Reflections

All Colleges Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 20**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.

MUB, Room 330**Asian Studies: Managing Economic Growth**

Adviser: Lawrence Reardon

Moderator: Patrick Baga

Elizaveta Baykova

Political Science

*How Excessive Borrowings and Reckless Investments Endanger Chinese Economy***Tristen Bianco**

Political Science

*Tokyo 2020: Resurgence of Japan***Tyler Gorman**

Political Science

*The Widened Gap: Increased Income Inequality in China***Zi Wang**

Political Science

*Public Management under International Crisis: China's Emergency Mechanism Respond to SARS***William Wolfe**

Political Science

Digital Cloak and Dagger: China's Cyber Espionage under Xi Jinping

MUB, Room 332**Asian Studies: When East Meets West**

Moderator: Cui Wenjin

Ryan Bowring

Computer Science

Divergent Views of Order: A Comparison of Confucianism and Daoism

Adviser: Wenjin Cui

Courtney Cohan

Justice Studies, Political Science

Different Understandings of Ideas in Classical and Christian Societies

Adviser: Susan Siggelakis

Drake Dumont

Linguistics

The Daoism and Confucianism of Kongming

Adviser: Wenjin Cui

Ethan Finnell

History

The Issei in America

Adviser: Yan Lu

Andrew Nemits

Political Science

Adapting Foreign Religion to China's Needs

Adviser: Lawrence Reardon

Margaret Quick

Political Science, Women's Studies

Women Rule, but in Which World? Examining the Effects of Classicalism versus Christianity on the Power and Influence of Shakespeare's Women

Adviser: John Kayser

MUB, Room 336**Communication: Public Speaking Performances**

Adviser and Moderator: R. Michael Jackson

Ellen Gibbs

Communication

*A Celebration of Nurses***Lihua Huang**

Communication

*How a Man Can Use Makeup***Mira Kehler**

Communication, Spanish,

*The Chaos from Which It Comes***Stephanie Latvis**

Communication

*Poetry Reading***Robert Maynard**

Communication, Linguistics

*A Reading of "[the] north[ern] [of] Ireland" by Pádraig Ó Tuama***MUB, Room 237****Environments, Texts, and Images in the 19th-Century U.S.**

Adviser and Moderator: Brigitte Bailey

Gabrielle Greaves

English, Women's Studies

*Indian Boarding Schools: An Extension of Landscape Policies in 19th-Century America***Catherine Sirois**

English

*Jacob A. Riis: Reaching to the Larger Audience***Elizabeth Trautz**

English

*Interpretations of the American Wilderness***MUB, Room 233****Global Cooperation: Galapagos Islands and Immigration Issues**

Adviser and Moderator: Alynna Lyon

Jonathan Eyberse

Political Science

*Radicalization in Brussels***Christian Mayoral**

History

*Galapagos: Representing Russia on San Cristobal***Crystal Napoli**

History, Justice Studies

*Global Cooperation and the Galapagos Islands***Hayden Proborowski**

International Affairs, Political Science

*Poland First: Analyzing the Polish Response to EU Migrant Quotas***Aaron Promer**

History, International Affairs

*Galapagos: Service Learning in Quito, Ecuador***MUB, Room 338****Multidisciplinary Session VI: Inclusion, Diversity, Multiculturalism, and the Arts**

Moderator: Kristen Butterfield

Bethany Cooper

English

Testing the Uniqueness of Black Acting Methods

Advisers: Deborah Kinghorn, David Richman

Daniel Faiella

Art: Studio Art

Musical Amalgamations: Studying the Influence of Jazz and Blues in Traditional Celtic Music

Adviser: David Newsam

Celine Guedj

Justice Studies, Sociology

Expanding a Mobile Application to Fight Sexual Violence on Campus

Adviser: Sharyn Potter

Evan Smith

Justice Studies, Sociology

LGBTQIA+ University Students and Likelihood of Self-Harm

Adviser: James Tucker

MUB, Room 340**Multidisciplinary Session VII:
Studies in Science, Medicine, and
Engineering****Moderator:** Jeanne Sokolowski**Chelsea Evankow**Biology, Women's Studies
Public Health and Education in Zambia
Adviser: Casey Golomski**Timothy Gray**Neuroscience and Behavior
*Examination of Phase-Amplitude
Coupling during Working Memory
Updating and Interactions with
Goal-Directed Attention Ability*
Adviser: Robert Ross**Erin Judge**Nursing
*The Bonding and Infant Feeding
Experiences of Mothers Who Deliver
at a Baby-Friendly Initiative Certified
Community Hospital*
Adviser: Alyssa O'Brien**Andrew Masters**German, Mechanical Engineering
*Investigation of Motion Cueing Algorithms
on the IMS Driving Simulator*
Advisers: Jan Bohn, Philipp Erler,
Stephan Rinderknecht**Anne Steckowych**Nursing
*Narcan Administration by New Hampshire
Law Enforcement Agencies*
Adviser: Kerry Nolte**MUB, Room 321****Research from the
Surveillance Society****Moderator:** Kevin Healey**Mhairi Baird**Communication
It's a Shame to be Shamed
Adviser: Josh Lauer**Bailey Marshall**Communication, Women's Studies
*Bathroom Bills and the Surveillance of
Transgender Bodies*
Adviser: Josh Lauer**Jamie Smith**Communication
*Surveilling Black Lives Matter: Controlling
People of Color in the Social Media Age*
Adviser: Josh Lauer**Jenna Ward**Communication
*Protest Policing and the Privatization of
Surveillance*
Adviser: Josh Lauer**Sydney Whittum**Anthropology
*The Ideology of Voluntourism: An
Autoethnographic Look at How We
Communicate Our Values*
Adviser: Edward Reynolds**MUB, Room 334****The Next Generation of
Changemakers: Semester in the
City Fellows****Advisers:** Faina Bukher, Fiona Wilson
Moderator: Faina Bukher**Rebecca Barton**Communication, Women's Studies
*An Experiential Learning Program in
Social Change: My Semester in the City***Matthew Fratamico**Communication, Justice Studies
*Corporate Accountability International:
Using Communication Skills to Stop
Life-Threatening Abuses***Rebecca Jerome**Psychology
*Freedom House: Working towards
Changing the Fabric of High-Need
Communities***Jung Hoon Kim**Psychology
*Doc Wayne: Fusing Sports and Therapy to
Heal and Strengthen At-Risk Youth***Anh Vu**Finance
*CommonWealth Kitchen: Building Great
Food Companies through Shared Spaces
and Business Assistance***The Naked Arts—
Creativity Exposed****Act III****Friday, April 20****12:15–1 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.

Jennifer BriseboisMarketing, Theatre
*Dance Is a Weapon: Exploring the
Historical Relationship between Politics
and the Cultural Significance of Dance*
Adviser: Gay Nardone**Juliana Good**Music Education
*Learning to Listen to the World: Music
Pedagogy in the 21st Century*
Adviser: Rose Pruiksma

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

**Friday, April 20
1–4 p.m.
Pettee Hall, Room 114**

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.

Colleen Bernard

Health Management and Policy
Social and Clinical Risk Factors Associated with Low-Risk Cesarean Deliveries among Births in the United States (2016)
Adviser: Semra Aytur

Olivia Black

Nursing
From Care Home to Community: The Impact of Connection on Dutch Elder Care and Well-Being
Adviser: Michele Loos

Brittany Catcher

Kinesiology
A Comparison of Head Impact Exposure in Two Youth Football Programs in Southern New Hampshire
Adviser: Erik Swartz

Christopher Cleary

Kinesiology
Postactivation Potentiation during Blood Flow Restricted Complex Training
Adviser: Summer Cook

Mikaela Frechette

Kinesiology
Corticomotor Function during Blood Flow Restricted Arm Crank Ergometry
Adviser: Summer Cook

Fallon Greene

Kinesiology
Core Stability and Performance Measurements in Collegiate Female and Male Lacrosse Players
Adviser: Summer Cook

Kayla Hansen

Communication Sciences and Disorders
Sustained Attention and Fatigue in Adults with Concussions
Adviser: Amy Ramage

Katherine Hyson

Neuroscience and Behavior
Sleep Quality's Effect on EEG Activity Underlying Information Processing during Motor Control
Advisers: Ronald Croce, Robert Ross

Marin Strong

Nursing
Factors Influencing Care-Seeking Behaviors for Childhood Illness by Mothers in Nepal
Adviser: Gene Harkless

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

**Friday, April 20
1–5 p.m.
Murkland Hall, Room 202**

The Department of Languages, Literatures, and Cultures (LLC) hosts an undergraduate research conference comprised of oral presentations, poster presentations, a foreign language award ceremony, and a reception.

Stewart Arend

Marine, Estuarine and Freshwater Biology
Bernard Broni
Psychology
Tyler Sebastian
Environmental Conservation and Sustainability
Comparing Minimally Counter-Intuitive Ideas Based on Levels of Complexity
Adviser: Paul Robertson

Mariah BessetteBranch

Ocean Engineering
Camryn Luby
Humanities
Zanna Prentiss
English
Does the Degree of Counterintuitive Ideas within a Sentence Increase the Amount and/or Kind of Religious Inferences in the Interpretation of an Image?
Adviser: Paul Robertson

Aurelia Blackstock

Spanish, Women's Studies
Friendship among Women
Adviser: Lori Hopkins

Isabel Bowe

Communication Sciences and Disorders
Juan Gomez-Rivadeneira
Neuroscience and Behavior
Does Strategic Influence Impact Social Decision Making in Zero-Sum Games?
Adviser: Paul Robertson

Ryan Bowring

Computer Science
Divergent Views of Order: A Comparison of Confucianism and Daoism
Adviser: Wenjin Cui

Ashley Bruns

Animal Science
Heating Systems in Ancient Spain
Adviser: John Chaston

Jubilee Byfield

Sociology
Nature vs. Nature: Testing the Correlation between the Preference for Quotes and Lived Experience
Adviser: Paul Robertson

Dylan Crupi

Anthropology

Katherine Gleason

Social Work

*Counter-Intuitiveness and Agency**Detection and Their Role in Perceiving**Supernatural Agents in Memorability Tests*

Adviser: Paul Robertson

Krysta Gingue

International Affairs, Political Science

*On the Outskirts: How the French Suburbs**Face Disproportionate Inequality*

Adviser: Helina Beyene

Charlotte Harris

Communication, Spanish

*Populism and the Press: Investigating the**Relationship between Government and**Media in Latin America*

Adviser: Michael Soha

Calvin Hichens

Justice Studies, Psychology

*Minimally Counter-Intuitive Ideas: Are**They Remembered?*

Adviser: Paul Robertson

Melissa Hurlburt

English, Spanish

*Too Surreal to Be Real? A Study of Surrealism**in the Filmography of Luis Buñuel*

Adviser: Carmen Garcia-Rasilla

Abigail Lehner

Communication, International Affairs

*Rolling mit dem Rollstuhl (Rolling with the**Wheelchair)*

Adviser: Helina Beyene

Michael Miller

Biochemistry, Molecular and

Cellular Biology

*Analysis of Innate Preferences for Indicators**of Agency in Choice-Based Scenarios*

Adviser: Paul Robertson

Gregory Morse

Classics

Andrew O'Neil

Information Technology

*Better Safe Than Sorry: A Cognitive Study**of Human Susceptibility to Influence from**Religious Ideology in Physical Orientation**of Objects*

Adviser: Paul Robertson

Isabella Mutch

Spanish

Observations of Contemporary Puerto Rico

Adviser: Lori Hopkins

Gabrielle Scott

English Literature

Anna Stockman

Environmental Conservation and

Sustainability

*Religious Signalling: Do Costly Religious**Signals Incentivize Additional Interest in**Groups?*

Adviser: Paul Robertson

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

Bud Albin Challenge Round

Friday, April 20**1–4 p.m. and 4–8:15 p.m.****Peter T. Paul College Building and
UNH ECenter**

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.

Honors English Undergraduate Research Conference

Friday, April 20**1:30–4 p.m.****Hamilton Smith Hall,****Rooms 150 and 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.

Tali Cherim

English, Women's Studies

*Healing after the Holocaust: The Value of**Holocaust Poetry as Trauma Therapy for**the Writer*

Adviser: Diane Freedman

Lilah Cherim

English

Physical Illness in the Graphic Medium

Adviser: Monica Chiu

Andrea Engen

English Teaching

*Teaching and Learning from Culturally**Diverse Literature*

Adviser: Alecia Magnifico

Melissa Hurlburt

English, Spanish

*The Damsel Can Rescue Herself:**Subverting Common Literary Tropes of the**Fantasy Genre*

Adviser: Jaed Coffin

Connor Mullins

English Teaching

*Tracing Writing Techniques through**College and High School*

Adviser: Alecia Magnifico

Alicia Ouellette

English Literature

A Community of Musickers

Adviser: Jaed Coffin

Madison Pierce

English Teaching

Companionate Marriage on the Elizabethan Stage: Reforming Matrimony in Marlowe's "The Jew of Malta," Dekker and Middleton's "The Roaring Girl," Fletcher's "The Woman's Prize," and Shakespeare's "The Merchant of Venice"

Adviser: Dennis Britton

Amanda Plante

English

F(ill)ing the Spaces between Us: Graphic Memoir as Mental Illness Self-Advocacy

Adviser: Monica Chiu

Student Composers' Concert

Friday, April 20
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.

Vajl Adamkowski

Music Education

Walk along the River (Sonata for Flute and Piano)

Adviser: Michael Annicchiarico

Louise Chartron

Music

Miniature No. 3, for Two Pianos
Violin Sonata, Mvt. 1 Improvisation
Dance, for Violin and Volincello

Adviser: Michael Annicchiarico

Eustaquio Dones

Music Education

Trombone Quartet

Adviser: Michael Annicchiarico

Troy Grimsley

Music Education

Three Short Pieces for Woodwind Quintet (2018)

Adviser: Michael Annicchiarico

Owen McCarthy

Music

Piano Trio No.1 for Contrabassoon, Piccolo and Piano
Snare Duet

Adviser: Ryan Vigil

Jessica Ross

Music Education

*Halfway Here**Remember, Love*

Advisers: Michael Annicchiarico,
David Ripley

Yu-han Sung

Political Science

Awakening—Piano Solo

Adviser: Michael Annicchiarico

Bryan Whittier

Music

"Flowers in Winter" Original Composition

Adviser: Michael Annicchiarico

COLSA Undergraduate Research Conference

Oral Presentations

Saturday, April 21**8:30–10:30 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.

Sharlene Amador

Biochemistry, Molecular and

Cellular Biology

Epidemiology and Prevalence of Methicillin-Resistant Staphylococcus Species in Veterinary Animals

Advisers: Cheryl Andam, Robert Gibson,
David Needle, Joshua Smith

Bailey Basiel

Animal Science

Plasma Response of Histidine and Histidine Metabolites to Incremental Amounts of Abomasal Infusion of Histidine in Lactating Dairy Cows

Advisers: Andre Brito, Nancy Whitehouse

Kaitlyn Baillargeon

Environmental Sciences

What Is Forest Diversity?

Adviser: Scott Ollinger

Hailey Carter

Biology

Emily Ray

Marine, Estuarine and Freshwater

Biology, Neuroscience and Behavior

The Role of Daphnia in the Production of Aerosols

Advisers: James Haney, Patricia Jarema

Beau Garcia

Zoology

Quantifying the Reproductive Success of a Declining Shrubland-Obligate Songbird, the Prairie Warbler (Setophaga discolor), Breeding in an Active Gravel Pit in

Southeastern New Hampshire

Adviser: Matthew Tarr

Lina Heinrichs

Biochemistry, Molecular and

Cellular Biology

Mapping Sediment Microbial Community Structure in the Stellwagen Bank National Marine Sanctuary to Facilitate Functional Genomic Studies

Advisers: Semra Aytur, John Bucci

Hieu Nguyen

Biochemistry, Molecular and Cellular Biology
Using Chemical Cross-Linking and Mass Spectrometry to Identify the Binding Mechanism of PU-H71 on Heat Shock Protein 90 (HSP90) in Cancer Cells Using Mouse Embryonic Stem Cells as a Model
 Adviser: Feixia Chu

Nicholas Ritzo

Genetics

Taylor Schwartz

Biochemistry, Molecular and Cellular Biology
Diversity and Antibiotic Activity of Streptomyces Bacteria: Searching for Super-Killer Bacterial Strains
 Adviser: Cheryl Andam

COLSA Undergraduate Research Conference

Poster Presentations

Saturday, April 21

10:45 a.m.–12:15 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.

Megan Alix

Biomedical Science
Brix-Acid Balance in UNH-Bred Organic Strawberries
 Adviser: Lise Mahoney

Sharlene Amador

Biochemistry, Molecular and Cellular Biology
Epidemiology and Prevalence of Methicillin-Resistant Staphylococcus Species in Veterinary Animals
 Advisers: Cheryl Andam, Robert Gibson, David Needle, Joshua Smith

Cassandra Amarello

Genetics
Optimization of DNA Extraction by Modification of Elution Period Protocols in Three DNA Extraction Kits
 Adviser: Adrienne Kovach

Marissa Anderson

Genetics, German
Metabarcoding Investigation of Extensive Dune Grass Die-Off in the Northeast
 Advisers: Gregg Moore, William Thomas

Kaitlyn Baillargeon

Environmental Sciences
What is Forest Diversity?
 Adviser: Scott Ollinger

Anna Bannon**Monique Duchesne****Jade Long****Madeline Murphy**

Community and Environmental Planning

Tyler Smith

Community and Environmental Planning, Ecogastronomy

Benjamin Touchette

Community and Environmental Planning, Environmental and Resource Economics

First Impressions: Dover

Advisers: Molly Donovan, Mary Friedman, Cathryn Hancock

Cameron Barnes

Zoology
Investigating the Presence of Magnetoreception and Electroreception in the American Lobster (Homarus americanus)

Adviser: Winsor Watson

Kathryn Bennett

Environmental Sciences, Sustainability
How Can the University of New Hampshire Reduce Its Nitrogen Footprint?

Adviser: John Aber

Audrey Berenson

Biomedical Science
The Significance of Particle-Associated Vibrio parahaemolyticus in Oyster Contamination

Adviser: Stephen Jones

Samantha Bogdahn

Neuroscience and Behavior
Testing the Sensory Ability of Canis lupus familiaris to Distinguish between Human Identical Twins

Adviser: Leslie Curren

Julia Boisselle

Nutrition
Relationship between Binge Drinking Frequency and Diet among College Students

Adviser: Jesse Morrell

Mason Caceres

Environmental Sciences
Storm Sediment Transport through the Parker and South Middleton Reservoirs to the Plum Island Estuary in Northeastern Massachusetts

Adviser: Wilfred Wollheim

Dylan Cairns**Robert Lafreniere**

Marine, Estuarine and Freshwater Biology
Terning a New Leaf: The Influence of Plant Community Characteristic on Common and Roseate Tern Nesting Preference and Fledgling Success

Adviser: Gregg Moore

Leah Calderazzo

Psychology
Comparing Populations of Cortical Activity While Rats Perform Decision-Making Tasks

Advisers: Miranda Francoeur, Brett Gibson, Robert Mair

Hailey Carter

Biology

Emily Ray

Marine, Estuarine and Freshwater Biology, Neuroscience and Behavior
The Role of Daphnia in the Production of Aerosols

Advisers: James Haney, Patricia Jarema

Thomas Caveney

Nutrition

Comparison of Diet Quality among College Students with and without a Disability

Adviser: Jesse Morrell

Nicole Charron

Zoology

The Effect of a High Calcium Diet on House Cricket (Acheta domesticus) Mobility

Adviser: Leslie Curren

Renee Chasse**Elijah Miller**

Neuroscience and Behavior

Colleen Donovan-West

Nutrition, Psychology

Chloe Pilgrim

Neuroscience and Behavior, Psychology

*Individual Difference in Stress Coping:**Forecasting Innate Resilience Using**Ultrasonic Vocalizations*

Adviser: Robert Drugan

Renee Chasse**Elijah Miller**

Neuroscience and Behavior

Colleen Donovan-West

Nutrition, Psychology

Chloe Pilgrim

Neuroscience and Behavior, Psychology

*Predicting Stress Reactivity Using**Ultrasonic Vocalizations: Neural**Correlates of Innate Resilience*

Adviser: Robert Drugan

Gabriela Chio

Zoology

Jessica Olson

Wildlife and Conservation Biology

*Does Size Matter? Behavioral Plasticity**in the Burying Beetle (*Nicrophorus***marginatus) during Reproduction*

Advisers: Carrie Hall, Daniel Howard

Gabriela Chio**Kaylee Sullivan**

Zoology

*Signals of Cooperation: Carcass Burial by**Nicrophorus Burying Beetles Facilitated by**Stridulatory Sound*

Adviser: Daniel Howard

Maria Clark**Tamara Hathorn****Mariam Traore**

Biomedical Science

Jacqueline Siciliano

Genetics

*Obesity Mediates Leukemia Progression**through Ceramide Kinase and the**NADPH Oxidase*

Adviser: Brian Barth

Nathan Cleveland

Environmental Sciences

Methane in Freshwater Systems

Adviser: Ruth Varner

Hannah Coffin

Biomedical Science

*Comparing the Effects of Sodium Butyrate**and Monensin Supplementation to Post-**Weaned Dairy Calves on Coccidian Counts*

Adviser: Peter Erickson

Stephanie Copeland

Biomedical Science

*Population Structure and Dispersal of**Prairie Warblers in Southern Maine and**New Hampshire*

Advisers: Adrienne Kovach, Matthew Tarr

Kaidy Cornell

Nutrition

*Comparing Body Mass Index, Body**Composition, and Waist Circumference as**Predictors of Health Risk in Male College**Athletes*

Adviser: Kevin Pietro

Andrea Cote**Mary Hurley**

Biomedical Science

*Gut Streptomyces Mediates the Generation**of Anticancer Secondary Metabolites from**Alaskan Botanicals*

Adviser: Brian Barth

Erin Cullather

Biomedical Science

*Evaluating College Students and Their**Understanding of Antibiotics*

Adviser: Judy Stevens

Claire Desjardins

Genetics

*Identifying Genetic Interactions of Protein**Phosphatase 2A Genes in Arabidopsis**thaliana Treated with Absciscic Acid*

Advisers: Estelle Hrabak,

Megan Thompson

Tiana DiBenedetto

Nutrition

*Analyzing Body Fat Percentage of Male**Collegiate Athletes: Pre-Season, In-Season,**and Off-Season Training*

Adviser: Kevin Pietro

Christina DiMeo

Genetics

*Comparison of the Effects of PDE Inhibitors**on the Catalytic Domains of Human and**C. elegans Phosphodiesterases*

Adviser: Richard Cote

Kevin Marc Dioneda

Biochemistry, Molecular and

Cellular Biology

*The Diversity of Streptomyces in Common**Earthworms (*Lumbricus rubellus*)*

Adviser: Cheryl Andam

Jake Donahue

Biomedical Science

*Investigating the Interplay between**Angiogenic Regulators in the Developing**Bovine Corpus Luteum*

Adviser: Paul Tsang

Maura Donovan

Nutrition

*Evaluating Perceptions of Dietary Quality**between Body Composition Measurements**Using Air Displacement Plethysmography**in Male Collegiate Athletes*

Adviser: Kevin Pietro

John Durant

Genetics

*Genetic Interactions of Protein**Phosphatase 2A Subunits in Roots under**Salt Stress*

Adviser: Estelle Hrabak

Yusuf Ebrahim

Biomedical Science

*Effects of the Mortalin Inhibitor MKT-**077 on the Tumor Suppressor p53 in**Neuroblastoma IMR-32 Cells*

Advisers: Paul Tsang, Charles Walker

Megan Esperance

Biochemistry, Molecular and

Cellular Biology

*Estimating the Structures of Cnidarian**Phototransduction Proteins Using**Homology Mapping*

Adviser: David Plachetzki

Natasha Fansiwala

Neuroscience and Behavior

Effective Connectivity Post-Concussion

Adviser: Robert Ross

Benjamin Fehr

Mathematics, Sustainable Agriculture and

Food Systems

*Root Foraging Strategies of Maize and Four**Common Agricultural Weeds*

Advisers: Carolyn Lowry, Richard Smith

Travis Fischer

Biochemistry, Molecular and Cellular Biology
Role of GLI3 in Diffuse Large B Cell Lymphoma (DLBCL)
 Adviser: Sherine Elsawa

Patrick Fitzgibbons

Wildlife and Conservation Biology
Productivity and Calf Survival in New Hampshire Moose
 Adviser: Peter Pekins

Clayton Gamble

Environmental and Resource Economics
Localization Impacts of Eastern Broccoli Production
 Adviser: Shady Atallah

Beau Garcia

Zoology
*Quantifying the Reproductive Success of a Declining Shrubland-Obligate Songbird, the Prairie Warbler (*Setophaga discolor*), Breeding in an Active Gravel Pit in Southeastern New Hampshire*
 Adviser: Matthew Tarr

Kaia Gerlovin

Biomedical Science
Evaluation of B-Cell Populations in Mice with Conditional GLI2 Knockout in B cells
 Adviser: Sherine Elsawa

Meghan Gillespie

Rachel Rafferty
Brooke Soderberg
 Biology
*Measuring Somatic Mutation Rates in the Model Organism (*Caenorhabditis elegans*) to Further Understand Cancers and Human Disorders*
 Adviser: John Collins

Emily Golomb

Biomedical Science
Intelligence in Sled Dogs: Are Leaders Really the Top Dogs?
 Adviser: Leslie Curren

Megan Gordon

Wildlife and Conservation Biology
Spatially Assessing the Status of Waste Disposal Infrastructure across UNH Academic Buildings
 Advisers: Jennifer Andrews, Nicole Tichenor

Timothy Gray

Neuroscience and Behavior
Examination of Phase-Amplitude Coupling during Working Memory Updating and Interactions with Goal-Directed Attention Ability
 Adviser: Robert Ross

Aleea Grazul

Jacqueline Johnson
 Biomedical Science
Investigating Concentrations of Microcystin and BMAA in Various Parts of Locally and Commercially-Grown Romaine Lettuce
 Advisers: James Haney, Patricia Jarema

Anna Haber

Genetics
Understanding the Role of Polyamines in Rice under Drought and Salt Stress
 Adviser: Subhash Minocha

Kyle Hacker

Environmental Sciences
Greenhouse Gas Emissions from Headwater Stream Sediments
 Adviser: Wilfred Wollheim

Erin Hart

Kelly Trainor
Stephanie Trusty
 Neuroscience and Behavior
Daniel Hertia
 Biology

Dissociating the Role of Anterior-/Posterior-Dorsomedial Caudate-Putamen in Associative Learning with Nicotine
 Adviser: Sergios Charntikov

Jackson Hastings

Genetics
*Quantitative Discernment of the Genetic and Epigenetic Architecture of Coloration in the Poison Frog *Ranitomeya imitator* and Its Morphological Variants throughout Development*
 Adviser: Matthew MacManes

Lina Heinrichs

Biochemistry, Molecular and Cellular Biology
Mapping Sediment Microbial Community Structure in the Stellwagen Bank National Marine Sanctuary to Facilitate Functional Genomic Studies
 Advisers: Semra Aytur, John Bucci

Hayleigh Hildebrand

Environmental Sciences, Russian
Weed Community Response to Tillage and Pesticide Seed Treatment
 Advisers: Richard Smith, Nicholas Warren

Nhen Hunter

Genetics
Transgenic Hydra: Editing Opsin with CRISPR
 Adviser: David Plachetzki

Adam Huynh

Biomedical Science, Neuroscience and Behavior

Daniel Turner

Biochemistry, Molecular and Cellular Biology
Pathological Etiologies in EMS Demographics Relevant to Current Literature
 Adviser: Mary Lockwood

Adam Huynh

Biomedical Science, Neuroscience and Behavior
Regulation of the Angiogenic Inducer, CCN1, by Heat-Inactivated Serum, in Human Tumor Granulosa Cells
 Adviser: Paul Tsang

Katherine Hyson

Neuroscience and Behavior
Sleep Quality's Effect on EEG Activity Underlying Information Processing during Motor Control
 Advisers: Ronald Croce, Robert Ross

James Ippolito

Nutrition
Relationship between Multivitamin/Mineral Supplement Use and Presence of Metabolic Syndrome Biomarkers among College Students
 Adviser: Jesse Morrell

Abigail Jensen

Neuroscience and Behavior

Lily Josephs

Biomedical Science
*CRISPR/Cas9 Aided Gene Editing of *Hydra magnipapillata**
 Adviser: David Plachetzki

Clayton Jerry**Anderson Thompson**

Biochemistry, Molecular and
Cellular Biology

*Investigation of Histone Modifications on
Preadipocyte 3t3 Cells*

Adviser: Feixia Chu

Amanda Kabel

Biomedical Science

*Testing the Effectiveness of Therapeutic
Agents on Neuronal Primary Cilia*

Adviser: Xuanmao Chen

Danielle Kalmbach

Environmental Engineering

Rainbow Trout Aquaculture Digester

Adviser: Todd Guerdat

Courtney Kamyk

Animal Science

*Boldness and Natural Behaviors in the
African Lion (Panthera leo): How Are
They Related?*

Adviser: Andrew Conroy

Kiley Kennedy

Neuroscience and Behavior

*The Effects of Pollen Composition on
Growth and Development in the Native
Bee, Ceratina calcarata*

Advisers: Sarah Lawson, Sandra Rehan

Kira Kenny

Zoology

*Lying Behaviors in Holstein and Jersey
Breeds of Cows*

Adviser: Leslie Curren

Victoria Kleiner

Biomedical Science

Genetic Tools in Frankia

Adviser: Louis Tisa

Elise Lacasse

Nutrition

*Relationship between Reported Sleep and
Physical Fitness among College Students*

Adviser: Jesse Morrell

Sarah Lafleur

Biomedical Science

*Eavesdropping on Grassland Ecosystems:
Investigating Disturbance Effects on Bat
Distributions across a Mixed-Use*

Tallgrass Prairie

Adviser: Daniel Howard

Megan Laforge

Biomedical Science

Connor Perry

Biology

*Using qPCR to Evaluate the Toxicity of
Lake Aerosols*

Advisers: James Haney, Patricia Jarema

Emily Landry

Wildlife and Conservation Biology

*Evaluating the Effect of Baiting on White-
Tailed Deer Harvest in New Hampshire*

Advisers: Daniel Bergeron, Peter Pekins

Courtney LeCuyer

Animal Science

*The Effects of Feeding an Organic-Certified
Milk Replacer to Dairy Calves on Body
Weight and Growth*

Adviser: Andre Brito

Kayla Lent**Laura Nussbaum**

Wildlife and Conservation Biology

*How Do Female-Biased Sex Ratios
Influence Male Resource Defense Behavior
in Hissing Cockroaches?*

Advisers: Leslie Curren, Daniel Howard

Katherine Loiselle**Lindsay March****Colin Mcgonagle**

Biomedical Science

*Phylogenetic Diversity of Antibiotic-
Producing Streptomyces Bacteria in the
Gut of Lumbricus Earthworms*

Adviser: Cheryl Andam

Kaelina Lombardo

Genetics

*Improving Assembly Completeness
with Shmlast*

Adviser: Matthew MacManes

Brianna Looney

Biomedical Science

*Do Lobsters Have Extraocular
Photoreceptors?*

Adviser: Winsor Watson

Kyle Macdonald

Environmental Sciences

*Using Leaf Traits to Estimate
Photosynthetic Capacity*

Advisers: Scott Ollinger,
Andrew Ouimette

Shrimika Madhavan

Genetics, International Affairs

Acrolein Toxicity in Humans and Plants

Adviser: Subhash Minocha

Grant Magee

Environmental Sciences

Darian Tilton

Biology

*Abiotic Factors Affecting Collection
Efficiency of Microcystin Aerosols*

Adviser: James Haney

Timothy Matroni

Biology

*Effect of Estradiol on Polyamine Levels in
Arabidopsis thaliana*

Adviser: Subhash Minocha

Kristina McCormack**Alissa Shea**

Environmental Sciences

*Investigating the Effects of BMAA
Exposure of the Northern Gannet
(Morus bassanus) and the Great
Shearwater (Puffinus gravis)*

Advisers: James Haney, Patricia Jarema

Danielle McGinty

Biomedical Science

*Characterization of a Protein
S-Acyltransferase Mutant, pat3, from
Arabidopsis thaliana*

Adviser: Estelle Hrabak

Natalie Monteiro

Neuroscience and Behavior

*The Effects of Mediodorsal Thalamic
Lesions on mPFC Activity during a
Delayed Non-Matching to Position Task*

Adviser: Robert Mair

Matthew Morris

Wildlife and Conservation Biology

*Masking Effect of Anthropogenic Noise in
Predatory Detection*

Adviser: Leslie Curren

Mary Mullins

Biomedical Science

*Analysis of Whelk (Busycotypus
canaliculatus) Circadian Rhythms of
Locomotion*

Adviser: Winsor Watson

Kevin Newton

Wildlife and Conservation Biology
Comparing Bird Communities in Transmission Line Rights-of-Way Dominated by Native Shrubs or by a Mixture of Native and Non-Native Shrubs in Maine and New Hampshire: Preliminary Results from 2017
 Adviser: Matthew Tarr

Hieu Nguyen

Biochemistry, Molecular and Cellular Biology
Using Chemical Cross-Linking and Mass Spectrometry to Identify the Binding Mechanism of PU-H71 on Heat Shock Protein 90 (HSP90) in Cancer Cells Using Mouse Embryonic Stem Cells as a Model
 Adviser: Feixia Chu

Jenna O'del

Cody Symonds
 Wildlife and Conservation Biology
*The Effect of Ground Conditions on the Emergence, Establishment, and Mortality of the Invasive Shrub, Glossy Buckthorn (*Frangula alnus*)*
 Adviser: Thomas Lee

Jessica Ohrenberger

Zoology
*To Bend, or Not to Bend? Hinged Teeth in the Goosefish (*Lophius americanus*) Have Multiple Functions and Two Distinct Lever Systems*
 Advisers: Jessica Bolker, Stacy Farina

Trey Patno

Biochemistry, Molecular and Cellular Biology
Temporal Regulation of an Angiogenic Inducer in Human and Bovine Ovarian Cells
 Adviser: Paul Tsang

Joseph Poggi

Wildlife and Conservation Biology
*The Effects of White Nose Syndrome (*Pseudogymnoascus destructans*) on the Health of *Myotis lucifugus* in Summer Colonies in the Northeast*
 Adviser: Jeffrey Foster

Megan Presutti

Equine Studies
Effects of Equine Musculoskeletal Conformation on Athletic Performance
 Adviser: Sarah Rigg

Tasya Rakasiwi

Biomedical Science
Environmental and Genomic Analyses of Lyme Disease Prevalence in Strafford County, NH
 Advisers: Christopher Benton, Brian Stevens

Ashutosh Rao

Marine, Estuarine and Freshwater Biology
*Determining the Nutrient Production Rate of Rainbow Trout (*Oncorhynchus mykiss*) Grown in Recirculating Aquaculture Systems*
 Adviser: Todd Guerdat

Nicholas Ritzo

Genetics

Taylor Schwartz

Biochemistry, Molecular and Cellular Biology
*Diversity and Antibiotic Activity of *Streptomyces* Bacteria: Searching for Super-Killer Bacterial Strains*
 Adviser: Cheryl Andam

Athena Ryan

Marine, Estuarine and Freshwater Biology
A Comparative Analysis on Various Feed Types on the Reproductive Success of Ornamental Clownfish
 Adviser: Michael Chambers

Chloe Schmir

Nutrition
A Preliminary Nutritional Analysis of Food Menus in Local Older Adult Assisted Living Facilities
 Adviser: Kevin Pietro

Alissa Scinto

Animal Science
Molecular Diet Analysis of Hawaiian Birds
 Adviser: Jeffrey Foster

Brennan Senecal

Genetics
Isoform Swapping: Can Members of a Gene Family Be Functionally Interchanged?
 Adviser: Estelle Hrabak

Jessica Sexton

Animal Science
Lying Times, Feed Particle Size, and Rumination Correlated with Milk Production in Dairy Cattle
 Adviser: Peter Erickson

Mary Sherman

Sustainable Agriculture and Food Systems
Evaluation of the After-School Program "Healthy Me, Healthy Earth"
 Adviser: Joanne Burke

Celeste Souza

Biomedical Science
*Degradation of Dioxin-Like Compounds by *Frankia**
 Adviser: Louis Tisa

Erin Stowell

Biology

John Taylor

Marine, Estuarine and Freshwater Biology

Jack Tremblay

Genetics
*Exploring Toxin Production in *Picocyanobacteria*: An Investigation of Lab Culture and Natural Systems*
 Advisers: James Haney, Patricia Jarema

Emily Sullivan

Biomedical Science

Alexander Thorpe

Biochemistry, Molecular and Cellular Biology
Gdf1 Regulates Sphingolipid Metabolism and Stem Cell Biology in Acute Myeloid Leukemia
 Adviser: Brian Barth

Ivey Telles

Genetics
Assessing the Quality of the Oyster River Protocol for Transcriptome Assembly
 Adviser: Matthew MacManes

Kadianne Tommasi

Marine, Estuarine and Freshwater Biology
*The Interspecific Interactions and Habitat Preferences of Harbor Seals (*Phoca vitulina concolor*) and Gray Seals (*Halichoerus grypus*) on Duck Island and Ledges, ME*
 Advisers: Andrea Bogomolni, Nadine Lysiak, Lisa Sette

Kathleen Wadiak

Wildlife and Conservation Biology
Use of Transmission Line Rights-of-Way Managed by Mechanical Mowing or Selective Herbicide Treatment by Shrubland-Dependent and Mature-Forest-Dependent Songbirds in Maine and New Hampshire: Preliminary Results from 2017
 Adviser: Matthew Tarr

Nicole Williamson

Ecogastronomy, Environmental Sciences
Designing a Biofilter for Ammonia Removal at a Commercial-Scale Compost Facility
 Advisers: John Aber, Allison Leach

Tracy Yeung

Biomedical Science
GLI3 Mediated Inflammation in Human and Mouse Cells
 Adviser: Sherine Elswa

UNH Manchester URC Engineering Technology Day

Senior Project Presentations

Friday, April 27

9 a.m.–4 p.m.

Pandora Mill, 1st Floor and Room 201

88 Commercial St., 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.

Paymon Adl-Zarabi

Mechanical Engineering Technology
Apollo Seiko Soldering Robot Qualification
 Adviser: Theodore Tavares

Daniel Bagley**Cory Beauchesne****Steven Hogan****Christopher Maxwell****Kyle Peterson**

Mechanical Engineering Technology
Rotating Parts Washer
 Adviser: Robert Arredondo

Jose Botelho

Mechanical Engineering Technology
Fixture/Tooling Design and Initial Optical Testing for a 25-230mm Infrared Zoom Lens Assembly
 Adviser: Theodore Tavares

David Burke

Mechanical Engineering Technology
Absolute Robot Inc. Robotic IMM Workcell
 Adviser: Robert Arredondo

Ethan Cullity

Mechanical Engineering Technology
Flexible Belt Technology
 Adviser: Theodore Tavares

Jonathan Danevich

Mechanical Engineering Technology
Camp Stove Fuel Heater
 Adviser: Theodore Tavares

Jonathan Ferguson**Benjamin Wood**

Mechanical Engineering Technology
Automating the Substantial Reproduction of Microscopic Subjects
 Adviser: Theodore Tavares

Nathan Hall

Electrical Engineering Technology
Autonomous Quad-Rotor Formation Design
 Adviser: Christopher LeBlanc

Anna Maguire

Electrical Engineering Technology
Drive-by-Wire Power Steering Demo
 Adviser: Christopher LeBlanc

Reinhardt Maltby

Mechanical Engineering Technology
Mechatronics Trainer
 Adviser: Theodore Tavares

John McIntosh

Electrical Engineering Technology
Burndy Capstone Project—RFID
 Adviser: Christopher LeBlanc

Darrel Morganelli

Electrical Engineering Technology
Allegro Test Stand System Analysis
 Adviser: Christopher LeBlanc

Cody Roberge

Electrical Engineering Technology
Internal Communication Application
 Adviser: Christopher LeBlanc

Theofilos Skaleris

Mechanical Engineering Technology
Smart Tools
 Adviser: Robert Arredondo

Aurora Van De Water

Electrical Engineering Technology
Spark Coil Test: Collaborative Robot Automation Feasibility
 Adviser: Christopher LeBlanc

Patrick Wiley

Electrical Engineering Technology
Temperature Control of Laser Diodes
 Adviser: Christopher LeBlanc

Tyler Wing

Mechanical Engineering Technology
Static v. Dynamic Lamp Life Test
 Adviser: Theodore Tavares

Psychology Department George M. Haslerud Undergraduate Research Conference

Friday, April 27

1:30–5 p.m.

McConnell Hall, Rooms 220 and 245

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.

Kelly Davis

Psychology

Treatment Options for Opioid Addiction: Efficacy and Availability

Adviser: Elizabeth Caldwell

Casey Dwyer

Justice Studies, Psychology

Jurors' Perception of the Blue Wall of Silence

Adviser: Ellen Cohn

Madison Fowler

Psychology

Memory for Childhood Episodes

Adviser: Michelle Leichtman

Lauren Irish

Psychology

Childhood Event Memories

Adviser: Michelle Leichtman

Jacqueline Klatt

Psychology

The Effect of the Bringing in the Bystander Program on Self-Reports of Perpetration Behavior

Adviser: Victoria Banyard

Alyssa Kolbert

Psychology

Parents vs. Parties: The Effect of Parental Communication on Behavior

Adviser: Ellen Cohn

Magdalyne Kucharski

Justice Studies, Psychology

Mini Reminiscence Bumps: Memories of Middle Childhood

Adviser: David Pillemer

Abby Leibowitz

Psychology

You Can't Sit with Us: Popularity, Peers, and Rule-Violating Behavior

Adviser: Ellen Cohn

Jessica Peterson

Justice Studies, Psychology

Gender and Occupational Stereotypes in the Courtroom

Adviser: Ellen Cohn

Jacqueline Vaquerano

Justice Studies, Psychology

Trends and Terminology: An Analysis of the Media's Coverage of the Commercial Sexual Exploitation of Children

Adviser: Robert Eckstein

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

Poster Presentations & Oral Presentations

Saturday, April 28

9 a.m.–3 p.m.

Peter T. Paul College Building

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: Artificial Intelligence

Team: Charlie's Angels

Adviser: Charles Andes

Mohammed Abukhalaf

Analytical Economics

Rachel Barbieri

James Cautley

Brian Chagnon

Ryan Coxen

Patrick Flaherty

Nicholas Fothergill

Andrew Gaudette

Jake Hewins

Elena Kapolis

Samuel Lepordo

Hugh McMackin

Cody Neal

Aidan O'Connor

Matthew Paolucci

Charlotte Shepherd

Alexander Stodolski

Victoria Tenaglia

Brenden Theroux

Benjamin Walsh

Christopher Watson

Business Administration

Gillian Scannell

Hospitality Management

Team: 21 Savages

Adviser: Caroline Muse

Robert Andreas

Griffin Auciello

Zachary Augusta

Matthew Bean

Michael Cohen

Anthony DeGirolamo

Jessica Hanley

Christopher Houde

Evelina Izdebski

Brian Kofman

Grace LaPierre

Zachary Lachance

John Mahoney

Thomas Modelevsky

Joseph Paige

Jennifer Quigley

Kyle Rembis

Isaac Sheahan

Anna Stoll

Danielle Szwedski
Business Administration
Katelyn Schillace
Business Administration, Finance

Team: 007

Adviser: Caroline Corsetti

Jack Aylward
Matthew Benoit
Haley Bridgeman
Mark Chrysafidis
Gina DeCinto
Brendan Donaghey
Olivia Glick
John Hurley
Kyle Jalbert
Luke Johnson
Abbigale Montgomery
Jessica Nelson
Connor O'Neil
Jacob Penttinen
Colin Quirk
Laura Zubricki
Business Administration
Michael Ciccotelli
Management
Tia Delampan
Business Administration, Marketing
Samuel Finn
Finance

Team: R15ky Business

Adviser: Samantha Blaine

Jeremy Bates
Finance
Lauryn Cappuccio
Brendan Erickson
Joslin Gilbo
Ryan Harrington
Gabrielle Langlois
Cameron MacRae
Elizabeth Marsden
Lindsey McGinnis
William Miller
Owen Novak
Nicholas Papasodoro
Zachary Rowen
Alysa Sapp-Consaul
Devin Sawtelle
Michael Sica
Samuel Stoehrer
Haylee Walsh
Business Administration

Team: FIRE Goodell 2.0

Adviser: Kevin Johnson

Carolyn Carlisle
Meghan Carroll
Kayla Coppola
Mikayla Ferguson
Alexander Heye
Christine Knox
Donald MacCallum
Thomas McCormick
Dillon Murphy
Hannah Phelps
Keane Regan
Charles Santos
Andrew Schluter
Adam Sneider
Madison Sullivan
Gavin Thibodeau
Alexandra Valach
John Washburn
Christian Weitz
Business Administration
Skylar O'Reilly
Economics
Jasmyn Senesombath
Business Administration, Marketing

Team: Nine of Your Business

Adviser: Francesca Molinari

Joseph Conry
Katherine Crowell
Ryan Donaway
Tessa Gallagi
Jacob Gould
Alexandra Horvath
Brendan Jacobs
William Lanchester
Adam LeLacheur
Amelia Marchand
Matthew Morelli
Jonathan Olson
Christopher Ouwerkerk
Casey Peterson
Benjamin Pierce
Sabrina Santagati
Raymond Staples
Steven Tedeschi
Jack Winship
Business Administration

Grand Challenge: Education

Team: FireCats

Adviser: Devin McMahon

Erin Ablondi
Cassandra Beigel
Nicholas Dolan
Jessica Dukeshire
Jada Ferreira
Christopher Gillen
Timothy Healy
Samuel Hetu
Morgan Houk
Trevor Hunt
Ann-Marie Kolberg
Matthew Landry
Andrew Leduc
Owen Lynch
Kyle Manlogon
Brendan Nichols
Liam O'Connell
Erica Peplau
Coleman Russell
Adam Turcotte
Business Administration
Michael Fiacco
Entrepreneurial Studies
Alexa Mayo
French, International Business and
Economics
Zachary Peters
Accounting

Team: The Goat

Adviser: Kyle Hurley

Thomas Adams
Quinn Antonacci
Emma Bogardus
Travis Campbell
Adam Cournoyer
Allison Crowley
Noah Denison
Molly Finn
Pinar Gokalp
Trace Hennas
Amelia Jordan
Cameron Lamprey
Victor Langone
Kaitlin Murphy
Kelly Nguyen
Nicholas Olney
Business Administration

Devon Bruzzese
Management, Marketing
Ryan Damelio
Raymond Zabkar
Accounting

Team: Str8 FIRE

Adviser: Timothy Putnam

Ryan Aittaniemi
Irene Bregianos
Joseph Bresnahan
Kyleigh Cooley
Matthew Creamer
Michael Deschenes
Zackary Gilman
Seth Gunter
Lucas Jones
Alec Juknievich
Hannah Kaplan
Kevin Larney
Kelsey Marcou
Julia Mcgonagle
Catia Petrella
James Toner
Business Administration
Nathaniel Baroni
Megan Champagne
Jacob Schwarzhaupt
Marketing
Kimberly Coudrey
Economics, Finance
Connor Stead
Finance

Team: Another Brick in the Paul

Adviser: Dakota Hippern

Ryan Allen
Jacob Callahan
Hannah Cehovsky
Ben Daniels
William Daraio
Kayleigh Donovan
Tyler Germain
John Heaps
Sophia Hughes
Patrick Hughes
Matthew Leroux
Bryce Libbey
Thomas Menchini
Grant Milas

Nicholas Mogielnicki
Hugh O'Donnell
Sean Orr
Madelyn Rines
Anupreet Saini
Garrett Scott
Jianing Tang
Business Administration

Team: Big Pauler Brands

Adviser: Alexys Gilcreast

Kathleen Buck
Finance, Marketing
Jeffrey Cole
Rocco DiPietro
Jarod Emirzian
Christian Greene
Eric Kostandin
Victor Li
Alexandra McClintic
Benjamin Potter
Molly Richardson
Michael Shea
Madison Smith
Taylor Svenconis
Isabelle Todd
Shay Wenglin
Dagny Wilkins
Victoria Wyman
Business Administration
Cassandra Kalba
Cara Sullivan
Marketing
Emma Nofsker
Information Systems and
Business Analytics
Alicia Pedersen
Accounting, Finance
Andrew Siemering
Business Administration,
Economics, Finance
Daniella Sirois
Finance

Team: Fuego

Adviser: Alexis Gray

Lily Cosman
David Fanaras
Richard Grandstaff
Carolyn Kinsella
Samuel Mabile
Camden Steady
Ethan Vient
Andrew Volmar
Economics
Sadie Mazzola
Cody Schoolcraft
Analytical Economics
Sawyer Nolan
James Rinklin
Business Administration
Emma Rockstrom
Accounting
Lani Stevens
Economics, Sustainability

Grand Challenge: Food Security

Team: 8teen

Adviser: Matthew Howard

Ian Alpine
Charles Biedermann
Terrance Brand
Jack Cowette
Jessie DeLouis
Trevor Guilmette
Dylan Jackson
Alexander Luzaitis
Andrew McCourt
Emma O'Neill
Brandon Robinson
Heidi Smith
Shannon Thomes
Sean Welch
Samantha Woodman
Business Administration
Darren Gibadlo
Business Administration, Finance
Madisen Gonya
Colin Plumb
Erik Sherkanowski
Finance
Starr Murray
Accounting, Business Administration
Anthony Sturzo
Undeclared

Team: FIREbal16

Adviser: Brittney Wallace

Cecilia Beaudoin
 Liam Conrad
 Samuel Delay
 Reed Gibson
 Sara Greenwald
 Sophie Hammond
 Casey Johnston
 Benjamin Kfoury
 Olivia Lachapelle
 Juliana Mancinelli
 Gregory Mattucci
 Matthew McKenzie
 Zachary Merian
 Edward O'Brien
 Samantha Prial
 Brandon Radford
 Lila Salinardi
 Luke Tighe
 Business Administration

Team: Dirty 30

Adviser: Jessica Dodge

Dana Bedard
 Evan Chen
 Bailey Chiavetta
 Courtney Fahey
 Chloe Ferrucci
 Jessica Gorman
 Hannah Harkins
 Rebecca Jones
 Cameron Lane-Matthews
 Cassidy Langan
 Kayla Laurent
 Lilianna Ryan
 Hospitality Management
 Anna Bruccoleri
 Lauren Chandler
 Frank Chiaramitaro
 Harrison Glead
 Michael Grieve
 Molly MacNeilly
 Business Administration

Team: APPAULLO 23

Adviser: Connor Cote

Danielle Beegan
 Melissa Dingle
 Ryan Dutille
 Patrick Flynn
 Maxwell Gildon
 Kyle Hamper
 Sean Hayden
 Paige Hillis
 Charles Kelleher
 Benton Maass
 Gabrielle Marrocco
 Sophia Mazzarelli
 Corey McConville
 Jessica Nadeau
 Cameron Rush
 Zachary Salem
 Daniel Vanecek
 Business Administration

Team: CanJan

Adviser: Janet Khoury

Joseph Blasie
 Nicholas Cappucci
 Charles Carter
 Giuseppe CrimiVaroli
 Anthony D'Angelo
 Zachary Fiore
 Carl Hubbard
 Ethan Landon
 Geoffrey Lo
 Christian McAree
 Lauren Nadolny
 Brandon Nemr
 Jessica Oswald
 Benjamin Palmer
 Seraphin Prat
 Daniel Romagna
 Allison Scimone
 Jack Sickles
 Jonah Stillman
 Justin Szabo
 Riley Walsh
 Business Administration
 Veronika Golod
 Management

Team: Mighty Fine #29

Adviser: Michael Wulftange

Cassidy Bodie
 Matthew Carney
 Anna Chace
 Hillary Costa
 Chad DeMont
 Joshua Dichiaro
 Ryan Farinas
 Mitchell Gemma
 Louise Healey
 Yanni Kakouris
 Bradley Keaveney
 Hannah Lackey
 John Littlefield
 Michael Marron
 Christopher Matzelle
 Alexander Nazarenko
 Ashley Osborne
 Kyle Spellicy
 Business Administration

Grand Challenge: Healthcare**Team: Twenty Too-Much Heat**

Adviser: Nicholas Snedegar

Benjamin Albanese
 Jenna Bortolussi
 Mitchelly Cabrera
 Peter Donohoe
 Shelby Ganem
 Brendan Glock
 Patrick Heffernan
 Connor Jesson
 Alicia Lester
 Riley Magrath
 Sydney Marshall
 Nicholas Meeker
 Christopher Muollo
 Kyle Norris
 Zack Peterson
 Olivia Rios
 Clark Stimon
 Erika Tsetsilas
 Samuel Veerman
 Brian Walkey
 Dean Zirolli
 Business Administration

Team: Twenty Gr8

Adviser: Alana Maher

Ryan Alexander
Dean Coletti
Alex Curtin
Derek Deiter
David Erickson
Rachel Fiato
Amanda Kwok
Michael Maida
James McMillan
David Michel
Margaret Moss
Benjamin Ouellette
Evan Pentasuglia
Jessica Renna
Johanna Rewucki
Jocelyn Sheltra
Patrick Sullivan
Isabella Tremblay
Business Administration
William McHugh
Entrepreneurial Studies, Marketing

Team: Shooters Shoot

Adviser: Alexander Bice

Jessica Badger
Spencer Coveney
Kelly Crawford
Linus Fallberg
Raymond Janeczek
Eric Kalton
Martha Peppes
Michael Robinson
Olivia Ross
Thomas Ross
Heidi Roussin
Danielle Sinko
Jonathan Wolf
Morgan Young
Business Administration
Patrick McCarthy
Finance, Information Systems and
Business Analytics
Celia Prescott
Marketing
Frederick Schaaake
Accounting, Information Systems and
Business Analytics
James Wichert
Entrepreneurial Studies, Marketing

Team: Paulin' on a Budget

Adviser: Timothy Closson

Kelsea Batchelder
William Beaulieu
Elizabeth Blanding
Christopher Burke
Mathew Fiore
Paige Kauh
Caroline Murphy
Ioannis Papathanasiou
Nikolos Raftopoulos
Ethan Tanner
Charles Thrasher
Joshua Welling
Nathan Whitcomb
Tanner Williams
Grant Workman
Business Administration
Bailey McDaniel
Accounting, Finance
Steven Schnobrich
Business Administration, Finance
Jakeb Vierzen
Finance, Management

Team: ThirdDegreeBurns

Adviser: Michael Ellison

Aimee Bayer
Ethan Carig
Sydney Carlisle
Kayce DeAngelis
Charles Driscoll
Julianne Erickson
Jenna Frasier
Madelin Hawtin
Scott Hinds
Alyson Jacobs
Samyak Jain
Ely Marciano
Kellan McEachen
Justin Mooney
Rachael Muise
Christopher Sheehan
Maxwell Shelley
Janessa Terry
Matthew Webber
Business Administration
Erin Gralton
Accounting, Finance
Edward Lange
Economics, Sustainability
Kyle Norman
Accounting

Team: Chicken ConTENDers

Adviser: Jocelyn Petry

Bradley Cammett
Jacob Claire
Kiera Connell
Samantha Davidson
Robert Dillon
Mark Fagan
Matthew Gravallese
Kristen Keough
John Levasseur
Jack Martin
Tyler Martin
Cameron Norling
Olivia Parks
Madison Rahilly
Kyle Shaw
Rachel Strout
Michael Vicente
Ryan Vigeant
Business Administration
Derek Gardner
Business Administration, Undeclared
Victoria Hartmann
Accounting

**Grand Challenge:
Transportation**

Team: W1ldf1re

Adviser: Brian Dezurick

Alexandra Adamakos
Natalie Bennett
Brenna Burkett
Kaya DeRobbio
Megan Dille
Allison Fischer
Sebastian Hart-Meyer
Patrick Kenney
Aidan Kittredge
Economics
Jared Bjornberg
Shae Jackson
Andrew Scolaro
Business Administration
Ning Hui Comey
Accounting
Manish Giri
Analytical Economics
Shawn Thomson
Entrepreneurial Studies, Finance

Team: Ign1t3 the F1r3

Adviser: Andrea LaBonte

Emily Adams
 Bethany Aucoin
 Nathan Borovick
 Hannah Carroll
 Meredith Darling
 Olivia Fusegni
 Alyssa Jameson
 Devan Reeves
 Caroline Wheatley
 Business Administration
 Sandra Bernal
 Kaitlyn Boudreau
 Mary Davis
 Bayley Hookway
 Julia Marzullo
 Mallory Perron
 Kendra Stefanski
 Mengxi Tan
 Nhu Minh Trang
 Lauren Wilson
 Hospitality Management

Team: The High Fives

Adviser: Brandilynn Barker

William Altieri
 Philip Amesoder
 John Brugger
 Nicholas Dello Buono
 Masami Dustin
 Michael Finalborgo
 Sean Hanscom
 Hunter Karch
 James LeVie
 Cabot Macuch
 Jackson Maffeo
 Jamie McGee
 Steven McKeen
 Jake Rappaport
 Andrew Rigney
 Matthew Seelig
 Cameron Smith
 Anthony Tamposi
 Troy Utton
 Business Administration
 Lars Hamilton
 Business Administration, Spanish
 Yirou Xiao
 Business Administration, Geography

Team: Edge of 17

Adviser: Matthew Vossler

Emmanuelle Beaurpere
 Malcolm Braren
 Kyle Capprini
 Andrew Connolly
 Justin Dalton
 Noah Forman
 Nicole Gianatassio
 Rachel Hall
 Kaitlyn Keane
 Marisa Labadini
 Allison MacPhee
 Johanna McCarthy
 Barrett Norton
 Alicia Palermo
 Samantha Pasovschi
 Christian Redding
 Isabella Ronson
 Nicholas Salcito
 Emma Sawyer
 Iris Scherma
 Adam Skiba
 Business Administration

Team: FIRE HA2ARDS

Adviser: Hayley Siemering

Ryan Bratton
 Mason Burke
 Michael Cocca
 Peter Coyne
 Drew Delano
 Matthew Dowling
 Aramazd Havan
 Francesca Izzo
 Amy Marko
 Catherine Molla
 Liam O'Donnell
 Hannah Parnell
 Victor Romeo
 Jessica Silvagni
 Taylor Silveira
 Rachel Werner
 Shane Whittredge
 Business Administration
 Brendan Donaghey
 Daniel Malizia
 Finance
 Sage Gallagher
 Business
 Acadia Laraway
 Accounting

Brandi McKay
 Economics, Management
 Nicholas Vertullo
 Entrepreneurial Studies

Team: Paul Til We Fall

Adviser: Sean Hickey

Niko Cardini
 Caroline Collard
 Cameron Curcio
 Haley Demres
 Nolan Doherty
 Benjamin Farrar
 Sam Grossano
 Eleanor Hartmann
 Sophia Irby
 Michael King
 Christopher Loparco
 Nicole Marzulli
 Andrew Mitchell
 Nicholas Monopoli
 Grant Morhun
 Owen O'Brien
 Jordan Sardo
 Matthew Schommer
 Zachary Serfass
 Liam Sullivan
 Laura Visco
 Business Administration

Ann Manchester Kelley Nursing Inquiry Day

Wednesday, May 2
8 a.m.–2 p.m.
Memorial Union Building,
Strafford Room

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

Olivia Black

Nursing

From Care Home to Community:

The Impact of Connection on Dutch Elder Care and Well-Being

Adviser: Michele Loos

Amanda Graves

Nursing

Frühe Hilfen Familienhebammen:

A Descriptive Study of Care and Prevention

Adviser: Gene Harkless

Erin Judge

Nursing

The Bonding and Infant Feeding

Experiences of Mothers Who Deliver at a Baby-Friendly Initiative Certified Community Hospital

Adviser: Alyssa O'Brien

Elizabeth Lapsley

Kiley McKenna

Nursing

Childhood Nutrition in the Rural Area of Agbelouve, Togo

Adviser: Gene Harkless

Nicole Moody

Nursing

Effects of Music Therapy on Distress in Patients Receiving Outpatient Chemotherapy

Adviser: Raelene Shippee-Rice

Kathleen O'Loughlin

Nursing

The Effect of ED Nurses' Perception of Addiction on Pain Management of Drug Users

Adviser: Joanne Samuels

Anne Steckowych

Nursing

Narcan Administration by New Hampshire Law Enforcement Agencies

Adviser: Kerry Nolte

Marin Strong

Nursing

Factors Influencing Care-Seeking

Behaviors for Childhood Illness by

Mothers in Nepal

Adviser: Gene Harkless

Chemistry Department Poster Exhibition

Thursday, May 3

3–4:30 p.m.

Parsons Hall, Southwest Lobby

The Chemistry Department Poster Exhibition is the result of students' year-long senior thesis research in such areas as organic, inorganic, physical or analytical chemistry, and under the direction of their research adviser.

Alyssa Bangrazi

Chemistry

Deactivation of Carbapenem-Hydrolyzing Class D β -Lactamases (CHDLs) through the Modification of C6-Substituted Penicillin Derivatives

Adviser: Marc Boudreau

Brady Barron

Chemistry

Design, Synthesis, and Characterization of a Novel Octadentate Aminophosphonate Ligand for ^{89}Zr -Immuno-PET Imaging

Adviser: Roy Planalp

Jane Berger

Chemistry

Separating and Quantifying Hydroxyl Functionality in Polymer Nanoparticles

between Surface, Serum, and Core

Adviser: John Tsavalas

Erin Braker

Chemistry

Synthesis of a Redox-Active Hydrogel for the Protection of Black Phosphorous

Adviser: Christine Caputo

Catherine Buckley

Chemistry

DNA Polymerase

Adviser: Margaret Greenslade

Jacob Buford

Biomedical Science, Chemistry

The Effects of Mycotoxin Binder on Growth Rate in Piglets with Reduction of Toll-Like Receptor-4 and Increase of Tight Junction Protein Gene Expression in Gut Mucosa

Adviser: Margaret Greenslade

Aaron Chung

Chemistry

Investigation of Zr^{+4} Complexation with DFO-8 for Positron Emission Tomography

Adviser: Roy Planalp

Matthew Currier

Chemistry

Synthesis of Indole-Functionalized Methacrylate Polymers for Investigating Nanoparticle Formation Dynamics

Adviser: Samuel Pazicni

Laura Jackson

Chemistry

Advancements in Forensic DNA Analysis

Adviser: Margaret Greenslade

Rachel Kiefaber

Chemistry

Application of the Nitrogen Footprint

Adviser: Margaret Greenslade

Sarah Lachapelle

Chemistry

Probing the Macromolecular Environment of Porphyrin-Cored Nanoparticles Using Exogenous Ligands

Adviser: Samuel Pazicni

Courtney Leo

Chemistry

Controlled Synthesis of Single-Chain Nanoparticles under Various Atom Transfer Radical Coupling Conditions

Adviser: Erik Berda

Zekun Li

Chemistry

Effect of Hydrophobic Group on the Untangling Rate of PolyNIPAM

Adviser: William Seitz

Yung-Chun Lin

Chemistry

Tandem Chain Extension-Mannich Reaction: An Approach to β -proline Derivatives

Adviser: Charles Zercher

Joseph Mancinelli

Chemistry

Synthesis of Functionalized BODIPY Dyes for Use as Fluorescent Probes

Adviser: Erik Berda

Kassie Picard

Chemistry

Exploration of the Synthesis of 1-Methyl-4-Silatrane and the Contest for Nitrogen's Lone Pair

Adviser: Arthur Greenberg

Matthew Reuter

Chemistry

Synthesis and Functionalization of Novel Multidentate Ligands for Catalysis with Carbon Dioxide and Ethylene

Adviser: Roy Planalp

Evangelos Rossis

Chemistry

Synthesis of Organic Bifunctional Spacer for the Conjugation of the Octadentate Chelator DFO with Antibodies for ^{89}Zr -Immuno-PET

Adviser: Roy Planalp

Cassandra Russell

Chemistry

Flu Vaccine

Adviser: Margaret Greenslade

Kelsey Ryan

Chemistry

Targeted Cancer Therapies

Advisers: Margaret Greenslade, Richard Johnson

Ian Smith

Chemistry

Development of New Fluorescent Materials: Putting Carbon Dots to Work

Adviser: Christine Caputo

Timothy Tetrault

Chemistry

Synthesis of Analogues of Nosokaphic Acid

Adviser: Marc Boudreau

Drew Verrier

Chemistry

Synthesis and Characterization of Porphyrin-Cored Polymer Nanoparticles That Incorporate Hydrogen Bonding to Model Hemes

Adviser: Samuel Pazicni

Thomas Williams

Chemistry

Exploring Routes to the Synthesis of Dibenzopentalenes

Adviser: Richard Johnson

Claudia Willis

Chemistry

Synthesis of Single-Chain Nanoparticles via Atom-Transfer Radical Coupling

Adviser: Erik Berda

Peter T. Paul College of Business and Economics

Paul J. Holloway Prize Innovation to Market Prize Competition

Championship Round

Wednesday, May 9**1–6 p.m.****Peter T. Paul College Building**

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 2018 URC happen.

Special thanks to:

Office of the Provost & VP for Academic Affairs

Office of the Senior Vice Provost for Academic Affairs

All Faculty Mentors and Other Research Advisers

Hamel Center for Undergraduate Research
Memorial Union Building Administrative Staff
Town of Durham, Public Works
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UNH Audiovisual Services
UNH Catering
UNH Communications and Public Affairs (CPA)
UNH Dimond Library
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University Honors Program
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Institute for the Study of Earth, Oceans, and Space (EOS)
Paul and Anna Grace Holloway
The Joan and James Leitzel Center for Mathematics, Science, and Engineering Education

Award Sponsors:

College of Liberal Arts (COLA) International Affairs Program

UNH Chapter of Phi Beta Kappa

Office of the Senior Vice Provost for Academic Affairs

Thanks to the 2018 URC Planning Committee (as well as the many individuals who served on subcommittees):

Carole Berry, Co-Chair, ISE Symposium; Administrative Manager, Office of the Dean, CEPS

Emily Broderick, Associate Director of Donor Relations, Advancement

Szu-Feng Chen, Chair, Naked Arts; Associate Professor, Theater and Dance

Summer Cook, Associate Professor, Kinesiology

Sarah Daigle, Event Coordinator, Paul College URC

Molly Doyle, Co-Chair, All Colleges Undergraduate Research Symposium; Administrative Director, Hamel Center for Undergraduate Research

Nora Draper, Assistant Professor, Communication

Andrew Earle, Chair, Paul College Holloway Prize Competition; Assistant Professor, Strategic Management and Entrepreneurship

Kate Gaudet, Associate Director, University Honors Program

Hannah Hamalainen, Geospatial and Earth Sciences Librarian; Assistant Professor

Tara Hicks Johnson, Co-Chair, ISE Symposium; Outreach Specialist, CCOM

Scott Jones, Director of Marketing Operations, CPA

Senem Kaptan, Co-Chair, All Colleges Undergraduate Research Symposium; URC Coordinator, Hamel Center for Undergraduate Research

John Larsen, Associate Director, UNH Admissions

Eileen Laskoski, Marketing Events Manager, Paul College

Myles Lynch, Graduate Assistant/Coordinator, Graduate Research Conference

Laura Martin, Associate Director of Donor Stewardship, Advancement

Cari Moorhead, Chair, Graduate Research Conference; Interim Dean, Graduate School

Beth Potier, Manager, Research and Outreach Communications, CPA

Dan Reagan, Chair, UNH Manchester URC; Associate Dean, Academic Affairs, UNH Manchester

Chris Reardon, Professor, Political Science

Sean Stewart, Program Coordinator, Paul College First-Year Innovation and Research Experience (FIRE) URC

Paul Tsang, Faculty Director, Hamel Center for Undergraduate Research; Professor, Molecular, Cellular and Biomedical Sciences

Pam Wildes, Co-Chair, COLSA URC; Administrative Assistant, MCBS, COLSA

Wilfred Wollheim, Co-Chair, COLSA URC; Associate Professor, Natural Resources and the Environment

Mary Young, Senior Project Manager, Office of the Dean, UNH Manchester

2018 URC Event Chairs/Co-Chairs:

Mike Annicchiarico, Student Composers' Concert

Carole Berry and Tara Hicks Johnson, Interdisciplinary Science & Engineering (ISE) Symposium

Anne Broussard, CHHS Grimes Award Competition

Szu-Feng Chen, The Naked Arts—Creativity Exposed!

Molly Doyle and Senem Kaptan, All Colleges Undergraduate Research Symposium

Andrew Earle, Paul College Holloway Prize Competition; Nelson Poster Competition

Steven Gorman, Thompson School of Applied Science Student Showcase

Lin Guo, Paul College URC

Ben Harris and Maureen Gillespie, Psychology Department George M. Haslerud URC

Julee Holcombe, Senior B.A. & B.F.A. Art Exhibition & Reception and M.F.A. Thesis Exhibition Opening Reception

Delia Konzett, Honors English URC

Elizabeth Mellyn, History Department URC

Cari Moorhead and Myles Lynch, Graduate Research Conference

Dan Reagan and Mary Young, UNH Manchester URC

Cindi Rohwer, Chemistry Department Poster Exhibition

Joanne Samuels, Ann Manchester Kelley Nursing Inquiry Day

Nick Smith, Philosophy Department URC

Sean Stewart, Paul College FIRE URC

Avary Thorne, Languages, Literatures, and Cultures Department URC

Wilfred Wollheim and Pamela Wildes, COLSA URC

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