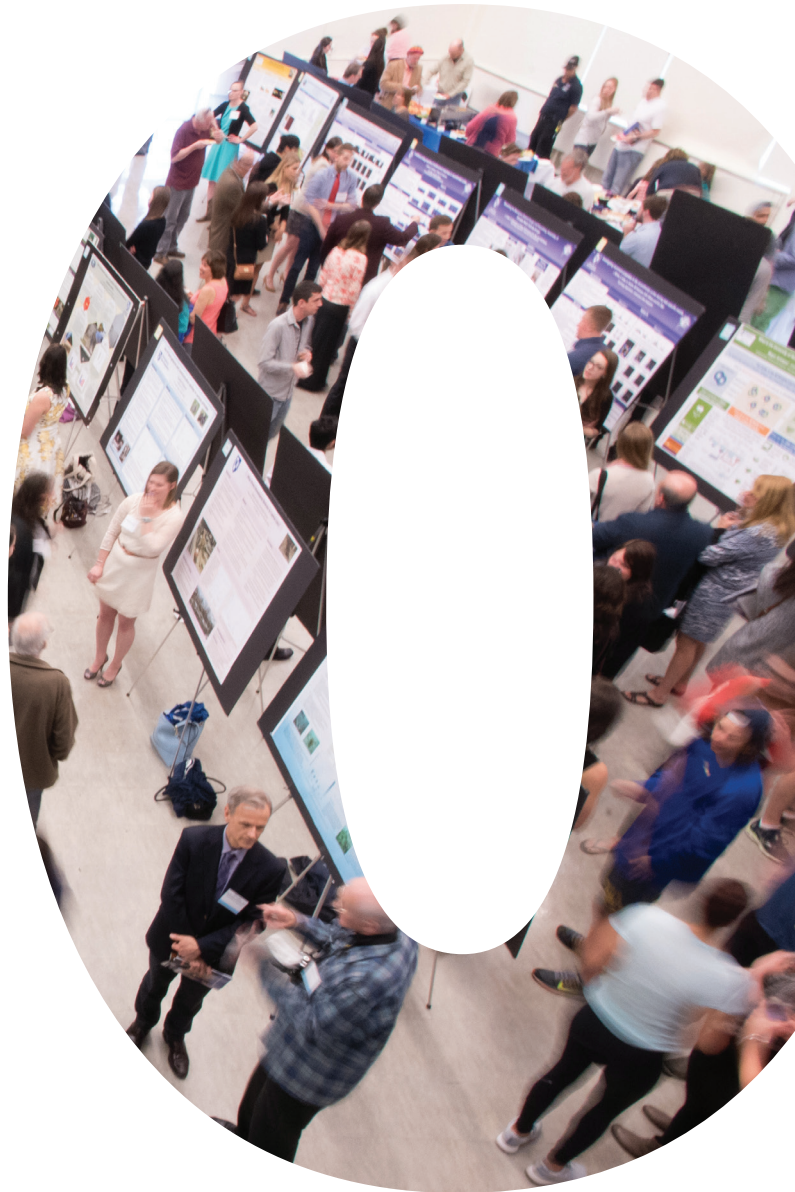


UNDERGRADUATE RESEARCH CONFERENCE



CELEBRATING 20 YEARS



**University of
New Hampshire**

Welcome to the UNH Undergraduate Research Conference



JAMES W. DEAN JR.



WAYNE JONES

THANK YOU FOR JOINING US FOR THE 20TH ANNUAL Undergraduate Research Conference. This is an exciting showcase of our students' innovative research and academic excellence, and a wonderful opportunity to celebrate our faculty mentors, whose research and teaching expertise are the hallmarks of a great UNH education.

The URC is a highlight of the academic year at our Durham and Manchester campuses, and reflects UNH's commitment to encouraging students in every discipline to pursue cutting-edge research. This year, more than 2,000 students and 440 faculty mentors are taking part in the URC—an all-time record, which makes our URC one of the largest and most diverse gatherings of undergraduate researchers in the nation.

Whether you visit a poster session, an oral presentation or a hands-on demonstration, we think you will be impressed, even surprised, by the range of creative and practical solutions that our students develop to improve the quality of life here in New Hampshire and around the world. We're delighted to welcome you to the URC, and always appreciate your support for New Hampshire's flagship public research university.

Best regards,

A handwritten signature in cursive script, reading "James W. Dean Jr."

JAMES W. DEAN JR.

PRESIDENT

A handwritten signature in cursive script, reading "Wayne Jones"

WAYNE JONES

PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS

A Welcome from the Hamel Center for Undergraduate Research

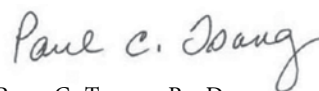
WELCOME to the 20th annual celebration of academic excellence at the University of New Hampshire! The URC embodies UNH's mission to offer students a discovery-based education by encouraging inquiry, exploration, and deeper immersion in their fields of study. This year, more than 2,000 students—mentored by over 440 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 present 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.

As we prepare to celebrate the 20th anniversary of this University-wide event, 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



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

URC 2019 Contents

Calendar of Events	4	Friday, April 26 Events	
Map	5	All Colleges Undergraduate Research Symposium	24
Thursday, April 11 Events		Welcome Breakfast	
Paul College of Business and Economics		All Colleges Undergraduate Research Symposium	
Paul J. Holloway Prize Innovation to Market Competition (Charles & Miriam Nelson Poster Competition)	6	Oral Presentations, Session A	24
Friday, April 12 Events		Poster Presentations, Session A	27
Paul College of Business and Economics		Oral Presentations, Session B	30
Paul J. Holloway Prize Innovation to Market Competition (Bud Albin Challenge Round)	6	Poster Presentations, Session B	33
Senior B.A., B.F.A. & M.F.A. Exhibition and Preview Reception	6	Oral Presentations, Session C	37
Thursday, April 18 Events		Paul College of Business and Economics URC	
History Department URC	6	Poster Presentations	39
Friday, April 19 Events		Oral Presentations	45
Student Composers' Concert	7	UNH Manchester URC Engineering Technology Senior Project Presentations	48
Monday, April 22 Events		The Naked Arts—Creativity Exposed! (Act III)	49
UNH Manchester URC Student Leadership Academy		Honors English URC	49
Senior Oral Presentations	7	College of Health and Human Services (CHHS) Grimes Award Competition	50
Tuesday, April 23 Events		Psychology Department George M. Haslerud URC	51
UNH Manchester URC Oral Presentations	8	Saturday, April 27 Events	
Wednesday, April 24 Events		College of Life Sciences and Agriculture (COLSA) URC	
The Naked Arts—Creativity Exposed! (Act I)	8	Oral Presentations	51
Interdisciplinary Science and Engineering (ISE) Symposium	9	Poster Presentations	52
UNH Manchester URC Computing Technology Poster Presentations	20	Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC	57
UNH Manchester URC Poster Presentations	20	Events in May	
Thursday, April 25 Events		Ann Manchester Kelley Nursing Inquiry Day	62
UNH Manchester URC Cinema Arts Day	22	Chemistry Department Poster Exhibition	62
Languages, Literatures, & Cultures (LLC) Department URC	22	Paul College of Business and Economics Paul J. Holloway Prize Innovation to Market Competition (Championship Round)	63
The Naked Arts—Creativity Exposed! (Act II)	23	Additional Features	
Philosophy Department URC	23	Acknowledgments	64
		Student Index	65

All events are free and open to the public. Accessibility accommodation requests may be directed to Amanda Adams at (603) 862-5494.

URC 2019 Calendar

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

THURSDAY, APRIL 11

12–2 p.m.

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

**Charles & Miriam Nelson Poster
Competition**

Paul College, Rooms G35 and G45 (6)

FRIDAY, APRIL 12

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 (6) and UNH ECenter

6–8 p.m.

Senior B.A., B.F.A. & M.F.A.

Exhibition and Preview Reception

The exhibition will remain open
until May 17.

Paul Creative Arts Center, Museum of Art (7)

THURSDAY, APRIL 18

12:15–2 p.m.

History Department URC

*Memorial Union Building, Rooms 302,
338, and 340 (3)*

FRIDAY, APRIL 19

8–10 p.m.

Student Composers' Concert

*Paul Creative Arts Center,
Bratton Recital Hall (7)*

MONDAY, APRIL 22

9–11:30 a.m.

**UNH Manchester URC, Student
Leadership Academy Senior
Oral Presentations**

Pandora Mill, Room 201

TUESDAY, APRIL 23

8:30 a.m.–1 p.m.

**UNH Manchester URC
Oral Presentations**

Pandora Mill, Room 201

WEDNESDAY, APRIL 24

12–2 p.m.

Naked Arts—Creativity Exposed! (Act I)

Paul Creative Arts Center, Museum of Art (7)

4–6 p.m.

**UNH Manchester URC Computing
Technology Poster Presentations**

Pandora Mill, 1st Floor

4–6 p.m.

**UNH Manchester URC
Poster Presentations**

*Pandora Mill, Room 201 and
Student Commons*

6–8:30 p.m.

**Interdisciplinary Science and
Engineering (ISE) Symposium**

Whittemore Center Arena (9)

THURSDAY, APRIL 25

10 a.m.–12 p.m.

UNH Manchester URC Cinema Arts Day

Pandora Mill, Room 456

12–5 p.m.

**Languages, Literatures, & Cultures (LLC)
Department URC**

Murkland Hall, Room G02 (4)

12:40–2 p.m.

Naked Arts—Creativity Exposed! (Act II)

Paul Creative Arts Center, Museum of Art (7)

4–7 p.m.

Philosophy Department URC

Hamilton Smith Hall, Room 240 (1)

FRIDAY, APRIL 26

9–9:30 a.m.

**All Colleges Undergraduate Research
Symposium Welcome Breakfast**

*Memorial Union Building,
Granite State Room (3)*

9 a.m.–1:25 p.m.

**All Colleges Undergraduate
Research Symposium**

*Memorial Union Building, Granite State
Room and various rooms (3)*

9 a.m.–3:30 p.m.

**Paul College of Business and
Economics URC**

Paul College (6)

9 a.m.–12 p.m. and 1–5 p.m.

**UNH Manchester URC Engineering
Technology Senior Project Presentations**

Pandora Mill, Rooms 142, 146, and 201

12:15–1 p.m.

Naked Arts—Creativity Exposed! (Act III)

Memorial Union Building, Theatre I (3)

1–3:30 p.m.

Honors English URC

Hamilton Smith Hall, Room 205 (1)

1–4 p.m.

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

Pettee Hall, Rooms 106, 114, and G02 (8)

1–5 p.m.

**Psychology Department
George M. Haslerud URC**

McConnell Hall, Room 220 (2)

SATURDAY, APRIL 27

7:45 a.m.–12:15 p.m.

**College of Life Sciences and Agriculture
(COLSA) URC**

*Memorial Union Building, MUB Theater II
and Granite State Room (3)*

9 a.m.–2 p.m.

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

Paul College (6)

WEDNESDAY, MAY 1

12–4 p.m.

**Ann Manchester Kelley Nursing
Inquiry Day**

Memorial Union Building, Strafford Room (3)

THURSDAY, MAY 2

3–4:30 p.m.

**Chemistry Department
Poster Exhibition**

Parsons Hall, Southwest Lobby (5)

WEDNESDAY, MAY 8

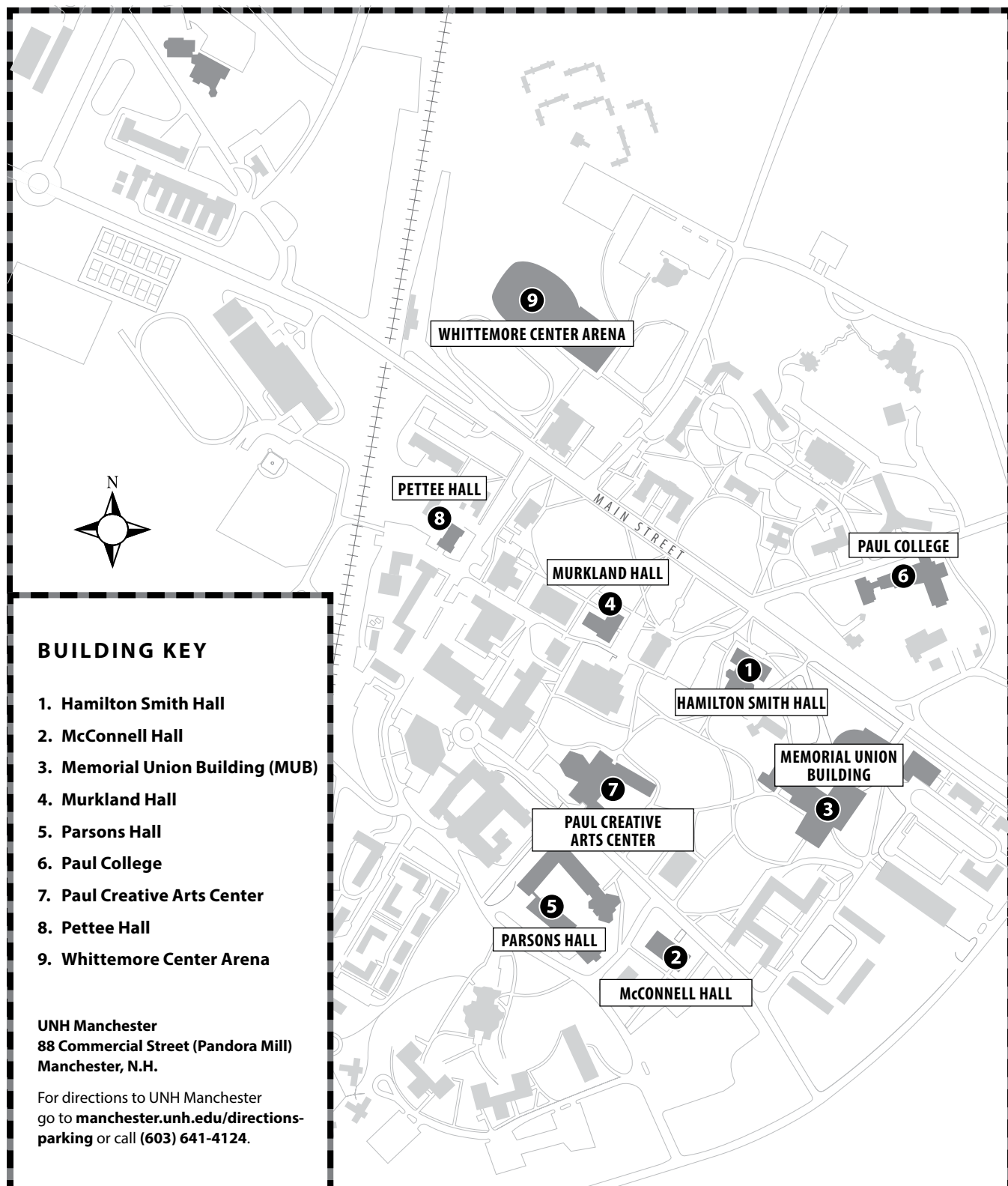
1–6 p.m.

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

Championship Round

Paul College, Room G75 and Great Hall (6)

URC 2019 Campus Map



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

Charles & Miriam Nelson Poster Competition

**Thursday, April 11
12–2 p.m.**

Paul College, Rooms G35 and G45

This poster competition gives all teams entered in the Holloway Prize Innovation to Market Competition 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.

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

Bud Albin Challenge Round

**Friday, April 12
12:50–4 p.m. Paul College
4–8:15 p.m. 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.

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

Friday, April 12

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

Adeline Boysen

Fine Arts

The Modern Family in Film

Daniel Faiella

Fine Arts

The Mind's Eye and the Eye's Mind: The Centrality of Observational Memory in Non-Observational Painting

Rachel Goyette

Fine Arts

Inspirations: From German Expressionism to Comic Books

Julianna Sagliano

Fine Arts

The Psychology of Architecture

History Department Undergraduate Research Conference

Thursday, April 18

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 340

Disciplines at the Crossroads: History, Politics, and Political Science

Moderator: Mark Lane

Nicholas Fitzgerald

History, Political Science

A Study of Two Fields: How the Disciplines of History and Political Science Can Show the Causes and Effects of War

Adviser: Alynna Lyon

Audrey Getman

Classics, History

Using Comparative History to Contextualize Current Events: Ancient Athens vs. the Modern United States

Adviser: Michael Leese

Austin Hyatt

History

We Win, They Lose: The Ideology of American Exceptionalism in Ronald Reagan's Foreign Policy

Adviser: Jessica Lepler

Astrid Kipka

History, Political Science

Allen Dulles and the Rise of the C.I.A.

Adviser: Kurk Dorsey

MUB, Room 338***The Evolving JFK: New Perspectives on President Kennedy***

Moderator: David Steelman
Adviser: Ellen Fitzpatrick

Kory Brennman
History
JFK's Leadership Development

Jennifer Gallagher
History, Philosophy
A Great Change: The Importance of John F. Kennedy's Civil Rights Speech for His Legacy and Americans

Andrew Jones
History
John F. Kennedy: A Distorted Life and Buried Legacy

Delaney Kabat
History
JFK, MLK, and Birmingham

MUB, Room 302***Center and Periphery: Power and Politics between Town, State, and Nation***

Moderator: Maree Magliochetti

Brianne Morneau
Educational Studies, History
The Economic and Cultural Connections of a Small Mill City
Adviser: Jessica Lepler

Kelly Pedersen
History
Manipulating the New Hampshire Mail: Political Power and the American Postal Service, 1792-1829
Adviser: Jessica Lepler

Craig Weatherbee
History, Russian
Corvettes and Clean Air
Adviser: Kurk Dorsey

Student Composers' Concert

Friday, April 19
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
The Joy of Spring — Fantasy for String Quartet in C Major
Adviser: Michael Annicchiarico

Matthew Gennard
Music
GENESIS Suite — Composition for Four Hands Piano and Flute
Adviser: Christopher Kies

Ethan Giles
Music Education
Isle of Passion (for String Quartet)
Adviser: Michael Annicchiarico

Bryan Whittier
Music
My Triumph
Adviser: Michael Annicchiarico

Spencer Wiles
Music
Architectural Landscapes: A Collection of Works for Unaccompanied Piano
Adviser: Christopher Kies

UNH Manchester URC Student Leadership Academy Senior Oral Presentations**Oral Presentations**

Monday, April 22
9–11:30 a.m.
Pandora Mill, Room 201
88 Commercial St., Manchester

UNH Manchester's Student Leadership Academy is designed to give students professional and networking opportunities to become a leader in their community and career. From assuming a student leader role on campus to fostering social change off campus, students will broaden interpersonal and leadership skills through engagement, collaboration and community service.

Adviser: Melissa Lyon

Rachel Avery
English, History
Nicole Milone
Psychology
Meghana Tadeipalli
Biological Sciences
Little Free Pantry: Tackling Food Insecurity on a Commuter College Campus

Amber Derouin
American Sign Language (ASL)/English Interpreting
Finding My Flow

Allison Dyke
Neuropsychology
Share the Care and End the Stigma: The Truth about Mental Illness among College Students

Jasmine Huffman
Psychology
The \$29,000 Difference: Leading with Emotional Intelligence

Shreya Vijay
Psychology
All Inclusive: Cultural Competency Training for Student Mentors

UNH Manchester Undergraduate Research Conference

Oral Presentations

Tuesday, April 23
8:30 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.

Benjamin Byerly

History

American and Japanese Reactions to the Atomic Bombs: A Study of Education, Memorialization and Relief

Adviser: John Cerullo

Kara Kelly-Martin

American Sign Language (ASL)/English Interpreting

The Relevance of Repetitive Stress Injuries in American Sign Language-English Interpreters: Deaf, Coda, and Hearing

Adviser: Laurie Shaffer

Mahad Khan

Takuma Okada

Joseph Ronca

Politics and Society

Samantha Lake

Undeclared

Robert Richard-Snipes

Political Science, Women's Studies

Gun Control and Homelessness: Advocacy in the New Hampshire State Capitol

Adviser: Stephen Pimpare

Jacob Maynard

History

Is There a Right Way to Memorialize the Holocaust? Jedwabne Case Study

Adviser: John Cerullo

Andrew McElroy

History

Historian Josef Wulf and the Wannsee Villa Memorial

Adviser: Kristen Woytonik

Kimberly Morrow

Politics and Society

How Does the United States Compare to Other OECD Nations in Workplace Gender Equality?

Adviser: Melinda Negron-Gonzales

Joseph Ronca

Politics and Society

Welcome to America: The Impact of Support Networks on the Assimilation of Immigrants and Refugees

Adviser: Melinda Negron-Gonzales

Cole Rutledge

History

Education in Fascist Italy

Adviser: John Cerullo

Nicole Toy-Caron

History

Tudor Women's Fashion: Solidarity and Competition among the Folds of Court Attire

Adviser: John Cerullo

Shreya Vijay

Psychology

Federal and New Hampshire Opioid Laws Are Ineffective

Adviser: Daniel Seichepine

The Naked Arts— Creativity Exposed

Act I

Wednesday, April 24
12–2 p.m.

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

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

Adeline Boysen

Fine Arts

The Modern Family in Film

Adviser: Jennifer Moses

Rachel Goyette

Fine Arts

Inspirations: From German Expressionism to Comic Books

Adviser: Jennifer Moses

Caleb Jagoda

English/Journalism

"Pocketful of Stars" and Other Poems

Adviser: Mekeel McBride

Elizabeth O'Connor

English

Tin Can Conversations

Adviser: Thomas Payne

Annelise Papinsick

Music

Musicking in Québec

Adviser: Rose Pruiksma

John Sullivan

Music Education

Examining the Song Repertoire of College Campuses: Alma Maters and Fight Songs

Adviser: Ryan Vigil

Emelie Vandenberg

Theatre

*The Construction of Dialect and Language for Theatrical Productions*Advisers: Deborah Kinghorn,
David Richman

Interdisciplinary Science & Engineering (ISE) Symposium

Poster Presentations

Wednesday, April 24**1–5 p.m. Judging****6–7 p.m. Awards****7–8:30 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: Krisztina Varga**Anna Haber**

Genetics

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

Adviser: Subhash Minocha

Connor Haney

Biochemistry, Molecular and Cellular Biology

*Rudimentary Protein Mimics:**Intramolecular Cross-Linked Linear Proteins*

Adviser: Erik Berda

Madeline Ishak

Bioengineering

Polymer BioConjugates (with Pendant Amino Acids, Peptides, or Proteins) for Anti-Icing Coatings

Adviser: John Tsavalas

Jingjing Lou

Biochemistry, Molecular and Cellular Biology

*Biophysical Studies on an Antifreeze Protein from the Desert Beetle, *Anatolica polita**

Adviser: Krisztina Varga

Mackenzie Meier

Zoology

Bryde's Whale Call Structure and Seasonal Distribution in the Equatorial Pacific

Advisers: Daniel Howard, Jennifer Miksis-Olds

Matthew Morris

Wildlife and Conservation Biology

Identifying Dispersal Corridors for the Endangered New England Cottontail

Advisers: Ethan Belair, Steven Roberge

Ryan Puterbaugh

Biochemistry, Molecular and Cellular Biology

Biological Applications of NMR Spectroscopy

Adviser: Krisztina Varga

Chemical Engineering/ Bioengineering

Group Leader: Young Jo Kim**Zachary Andronaco**

Bioengineering

Mechanistic Studies of Thermal Decomposition of Nickel-Iron Layered Double Hydroxides

Adviser: Nan Yi

Brooke Benson**Anthony Bianchi****Vatsal Kheni****Rebecca Lincoln****Benjamin Shalek**

Bioengineering

Characterization of Two Phase Magnetic Nanoclusters for Oncologic Hyperthermia

Adviser: Russell Carr

Ryann Boudreau

Bioengineering

Rachel Yee

Biochemistry, Molecular and Cellular Biology

Silk-Gelatin Composite Hydrogels for Tissue Engineering

Adviser: Kyung Jae Jeong

Krystal Burbank

Bioengineering

Karl Wieck

Chemical Engineering

Mechanistic Understanding of Ion Conduction through Eumelanin Pigments

Adviser: Young Jo Kim

Ngan Cameron

Chemical Engineering

Mechanistic Studies of an Oscillating Electrochemical System

Adviser: Dale Barkey

Michelle Chen

Chemical Engineering

Learning Molecular Biophysics through Visualization

Adviser: Harish Vashisth

Charles Gasperoni

Bioengineering

Investigation of the Sensing and Stability Characteristics of a Nickel (II) Oxide Film

Adviser: Jeffrey Halpern

Justin Hardcastle**Joseph Tumidajski**

Bioengineering

Bioremediation of Heavy Metals

Adviser: Kang Wu

Caroline Houston**Dean Yost**

Chemical Engineering

Effect of Hydrophobic Pretreatment on Type III Aluminum Anodized Surfaces

Adviser: Young Jo Kim

Valerie Mores

Chemical Engineering

Pulse Electrodeposition of Copper-Indium-Gallium Alloys as Precursor Layers for Thin Film Solar Cells

Adviser: Dale Barkey

Gregory Novotny

Chemical Engineering

*Phase Transitions of Titanium Dioxide**Nanocrystals*

Adviser: Nan Yi

Paul Worthington

Chemical Engineering

*Gold Modified Tungstosilicic Acids:**Synthesis, Characterizations and**Application in Methanol Reaction*

Adviser: Nan Yi

Chemistry**Group Leader: Roy Planalp****Benjamin Adams**

Chemistry

*Determination of Hydroxyl Surface**Coverage on Waterborne Polymeric**Nanoparticles via Grafting with**Fluorescent Pyrene Tag*

Adviser: John Tsavalas

Francesca Barucci

Biochemistry, Molecular and

Cellular Biology

*Synthesis of N-Heterocyclic Carbene**Ligands for Transition Metal Catalysis*

Adviser: Christine Caputo

Sarah Benware

Biochemistry, Molecular and

Cellular Biology

*Fabrication of Polymer Nanoparticles**via Intrachain Ring-Opening Metathesis**Polymerizations (ROMP)*

Adviser: Erik Berda

Siran Cinar

Chemistry

*Synthesis of Proline Derivatives for**Incorporation into Phosphoramino Acid-**Based Inhibitors of Metallo- β -Lactamase**Enzymes*

Adviser: Marc Boudreau

Hannah Coco

Chemistry

*Chiral Enhancement of Carbon Dots**Synthesized from Amino Acids and**Their Applications in Amyloid-Beta**42 Fibrillation*

Adviser: Christine Caputo

Noah Cote

Chemistry

*Synthesis of 2,3-Benzoxepin for**Comparative Two Electron Oxidation**Studies with Cerium(IV) Ammonium**Nitrate and Cytochrome P450*

Adviser: Arthur Greenberg

Jason Cournoyer

Biochemistry, Molecular and

Cellular Biology

*Exploring C-H Amination Methodology for**the Preparation of Peptide Synthesis-Ready**Enduracididine Derivatives*

Adviser: Marc Boudreau

Victoria Curtin

Chemistry

*Studies in Zinc Carbenoid-Mediated**Chain Extensions and β -Proline Derivative**Formations via Activated Imines in the**Presence of γ -Keto Esters*

Adviser: Charles Zercher

Nicholas Heath

Chemistry

*Construction of a Low Temperature**Plasma Probe Capable of Ambient**Ionization of Samples for Mass**Spectrometric Analysis*

Adviser: Anyin Li

Christopher LaSalle

Chemistry

*Styrene-Based Single-Chain Nanoparticles**via Atom Transfer Radical Coupling:**Structural and Electronic Effects*

Adviser: Erik Berda

Michael Moheban

Chemistry

*Synthesis of Inorganic N-Heterocyclic**Carbene Derivatives for Transition**Metal Catalysis*

Adviser: Christine Caputo

Nathan Shipley

Chemistry

*Controllable Synthesis of Single-Chain**Nanoparticles via ATRC*

Adviser: Erik Berda

Katelyn Wentworth

Chemistry

*Novel Synthetic Applications of Benzyl**Cation Chemistry*

Adviser: Richard Johnson

**Civil & Environmental
Engineering—Design****Group Leader: Tony Puntin****Rezwan Ali**

Allan Masison

Owen Sweet

Civil Engineering

Nicholas Francis

Environmental Engineering

Philip McHenry

Environmental Engineering,

International Affairs

*Lonza Biologics Campus Expansion,**Portsmouth, NH*

Adviser: Anthony Puntin

Matthew Barakian**Rachael Flores****Erica Levin****Jack Levine****Timothy Murray**

Civil Engineering

*Franconia Bridge Rehabilitation, NH 18**over Lafayette Brook*

Adviser: Julie Whitmore

Paige Begin**Jase Gregoire****Austin Jacinto****Michael Lopez****Anthony Lupo**

Civil Engineering

*Newington-Dover, NH Boardwalk and**Park Enhancements at the General**Sullivan Bridge*

Adviser: Raymond Cook

Benjamin Curcio**Justin Fiala****Erik Leger****Jake Manning**

Civil Engineering

*Implementing Cross-Lamination Concepts**in Composite Timber Beams*

Adviser: Raymond Cook

David Czapkowski**Trevor Hentz****Matthew McWeeney****Conor Mullaney****Elijah Williams**

Civil Engineering

*Busteni, Romania Gondola Conceptual**Layout and Departure Site Design*

Adviser: Erin Bell

Joseph Dutile
Kyle Henshaw
Gavin Moschella
Aaron Thibeault
 Civil Engineering
Megan Wilson
 Environmental Engineering
Rollinsford Route 4 Complete Streets
 Adviser: Jo Sias

Kathryn Dziadowicz
Benjamin MacDonald
Trevor Ribbans
Michael Winter
Mi Zhou
 Civil Engineering
Multigenerational Site Redevelopment of the Doble USARC
 Adviser: Anthony Puntin

Dominic Emory
Grant Erickson
Matthew Graca
Zachary Smith
Aimee Wilinkiewicz
 Civil Engineering
General Sullivan Pedestrian Bridge Crossing
 Adviser: Raymond Cook

Ashit Kuthumi
Lawrence Muller
Derek Rubin
James Russo
Sabatony Watopa
 Civil Engineering
Pease Runway Reconstruction Project
 Adviser: Jo Sias

Jack McCartney
Matthew Perry
Andrea Plourde
Robert Schumacher
 Civil Engineering
Luke Mueller
 Environmental Engineering
Haverhill Riverfront Site Development Project
 Adviser: Anthony Puntin

Civil & Environmental Engineering—Innovation & Research

Group Leader: Eshan Dave

Emily Balcom
Castine Bernardy
Megan Verfaillie
Quinn Wilkins
 Environmental Engineering
Zachary Rosa
 Statistics
Development of Low Cost Snare for In Situ Monitoring During Oil Spills
 Advisers: Nancy Kinner, Gary Shigenaka

Kyle Bernard
Connor Mills
 Civil Engineering
Carissa Mak
 Civil Engineering, International Affairs
Thomas O'Rourke
Adam Wohlgenuth
 Mechanical Engineering
3D Printed Concrete in Construction
 Advisers: Dan Bernard, Eshan Dave, Thomas Weber

James Burton
Erik Steinborn
 Mechanical Engineering
Zoya Fakhoury
 Civil Engineering
Alexa Kaminski
 Environmental Engineering
Development of an In-Situ PFAS Sampler
 Advisers: Kevin Gardner, Todd Gross

Jillian Cayer
Aidan Short
Samuel Skinner
 Civil Engineering
Use of UAVs and Structure from Motion Technology to Assess Roof Snow Loads
 Advisers: Jennifer Jacobs, Ronny Schroeder

Sara Fernandes Wilson
Alex Lefebvre
Paul Pontbriand
Austin Puchalski
 Civil Engineering
Geoen지니어ed Materials for 3D Printing Structures
 Advisers: Eshan Dave, Majid Ghayoomi

Julissa Freund
 Environmental Engineering
The Societal, Economic, and Environmental Aspects of Providing Clean and Safe Drinking Water to Small Communities
 Adviser: James Malley

Delaney Glinner
Kurt Jackman
Renee LaRose
Stefen Nguyen
 Civil Engineering
Liam Sundling
 Environmental Engineering
Augmented Reality in Construction
 Adviser: Robert Henry

Angela Howard
William Moore
Mattson Rosenbaum
Julie Settembrino
 Environmental Engineering
Thomas Libby
 Civil Engineering
UNH Aquaponics Research Model
 Advisers: Todd Guerdat, Weiwei Mo

Anna Lampman
 Environmental Engineering
Comparing Hydraulic Geometry Relationships to Field and Remotely Sensed Measurements of Rivers in New England
 Adviser: Anne Lightbody

Samuel Lanternier
 Civil Engineering
Design of Pressurized Household Radon Stripping System
 Adviser: M. Robin Collins

Lucas Theoharidis
 Environmental Engineering
Understanding the Sources and Fate of Emerging Contaminants in the Great Bay Estuary
 Adviser: Paula Mouser

Civil & Environmental Engineering—Investigation & Assessment

Group Leader: Majid Ghayoomi

Sonnet Agran-St.Pierre
Emily Belisle
Emily Cook
Elizabeth Philpott
Emma Sutherland
Environmental Engineering
Georgetown, ME Culvert Analysis
Adviser: Nancy Kinner

Austin Ahearn
Andrew Bulluck
Ezequiel Galvan
Andrew Holland
Valeria Kandou
Civil Engineering
I-93 Multi Modal Access Study
Advisers: Dave Cedarholm,
Roch Larochelle, Anthony Puntin

Peter Benjaminsen
Allison Christie
Civil Engineering
The Living Bridge: Turbine Deployment Platform Loading and Motion Study
Advisers: Erin Bell, Martin Wosnik

Cody Buckman
Allison Heil
Civil Engineering
Caroline Kahr
Alexander Moody
Nicholas Raffi
Environmental Engineering
Feasibility Analysis of Alternatives for the Beard's Creek Dam in Durham, New Hampshire
Adviser: Paula Mouser

Morgan Dunson
Andrew Lanza
Patrick Serven
Civil Engineering
Jacob Kostandin
Nathan Muska
Environmental Engineering
Merrimack River Greenway Trail
Adviser: Kyle Kwiatkowski

Christina Eddleman
Anna Smith
Emma Turgeon
Environmental Engineering
UNH Safe Drinking for Malawi
Adviser: James Malley

Nathaniel Green
Nathan LaTourette
Benjamin Sawosik
Nicholas Woodman
Environmental Engineering
Groundwater Monitoring and Assessment: Northeast Coal Ash Landfill
Adviser: Harrison Roakes

Madison Jones
Environmental Engineering
Tyler Judd
Civil Engineering
Julia King
Civil Engineering, Justice Studies
Haley Puntin
Environmental Engineering, Sustainability
Mirror Lake Equestrian Arena Stormwater Management
Adviser: Kyle Kwiatkowski

Qianru Lu
Angela Millette
Griffin Parodi
Shannen Pimental
Zachary Ready
Environmental Engineering
Christopher Negrotti
Civil Engineering
Phase III Landfill Design—Lebanon, NH
Advisers: Jean Benoit, Kevin Gardner

Daniel Meditz
Joseph Saccente
Jonathan Scanlon
John Wichert
Civil Engineering
U.S. Botanic Garden Structural Collapse Prevention Project
Adviser: Raymond Cook

Computer Science—Applications

Group Leader: Collette Powers

Zachary Carrano
Alexander Hawk
Jae Beom Lim
Connor Pratt
Kevin Robinson
Eric Smath
Computer Science
HERE: Virtual Attendance
Adviser: Scott Valcourt

Veronica Chambers-O'Bryan
Information Technology,
International Affairs
Jason Nguyen
Information Technology
Air Force ROTC Smartphone Application
Advisers: Radim Bartos,
Whitney O'Connell

Andrew Chorlian
Matthew Ferullo
Philip Kessler
Information Technology
Michael Leroux
Christopher Puda
Chase Sanville
Computer Science
Spotter: A Campus Parking Solution
Adviser: Scott Valcourt

Robert Colley
Alexander Saveliev
Computer Science
Sean Diamond
Nicholas LaGambina
Marcello Paiva
Information Technology
NextStep Health Tech
Advisers: Sam Warach, Connor Whelan

Maxwell Croteau
Udhay Vijay
John Ward
Information Technology
Daniel Crowley
Computer Science
NENA Mobile Health Application
Advisers: Courtney Eaton,
Collette Powers

Timothy Flanagan
Lakshmi Jampana
Junjie Ke
Hannah Mathieu
Andreas Sudarto
Chao Yin
 Information Technology
Consulting Company Dashboard
 Adviser: Scott Valcourt

Samuel Hemond
 Computer Science
Project Albacore
 Adviser: Gerald Sedor

Haoxuan Jiang
Brendan McGuirk
 Computer Science
Albedo Apps
 Adviser: Elizabeth Burakowski

Kaylee Kiefaber
Pengju Shan
 Information Technology
Eric Porter
Theresia Tjen
 Computer Science
Appalachian Mountain Club's Cold River Camp—Online Reservation Request System
 Adviser: Gary Munson

Jeffrey Paradis
David Ventresco
 Information Technology
Trucking Utilization Mobile Application
 Advisers: Dora Cserna-Nyiro,
 Brian Widell

Joshua Piper
David Styskal
 Information Technology
Discover Portsmouth Virtual Tour
 Advisers: Erin Bell, Eleanor Harrison-Buck, Collette Powers

Austin Prusik
 Computer Science
Sound Maestro: The Dynamic Soundscape Builder
 Advisers: Radim Bartos, Liese Zahabi

John Schlim
 Computer Science
Christianbook Reader App
 Adviser: Win Mattina

Computer Science—Research

Group Leader: Arvind Narayan

Daroc Alden
 Computer Science
Enhanced System of Interaction Combinators
 Adviser: Philip Hatcher

Ryan Bowring
Ralph Connors
Garrison Gage
Ishan Katwal
Jeremy Walker
 Computer Science
Blockchain in Action: Insurance Subrogation Claim Processing
 Adviser: Yiqing Wang

Brian Cawley
 Computer Science
Quantization in Suboptimal Heuristic Search
 Adviser: Wheeler Ruml

Chao-Chi Cheng
 Computer Science
Real-Time Planning in Dynamic Environment
 Adviser: Wheeler Ruml

Richard McCormack
 Computer Science
LLVM JIT Emulation for the Nintendo Entertainment System
 Adviser: Philip Hatcher

Samantha Piatt
 Computer Science
Large-Scale Statistical Survey of Magnetopause Reconnection
 Advisers: Matthew Argall, Marek Petrik

Dylan Wheeler
 Information Technology, Philosophy
The Ability for Artificial Intelligence to Create and Spread Disinformation
 Advisers: Betsy Coleman, Nicholas Smith

Computer Science—Systems

Group Leader: Mike Gildersleeve

Riley Bryan
Alex Korzyniowski
Brianna Smith
 Information Technology
Jason Vettese
 Computer Science
Detecting Malicious Internet of Things Traffic
 Adviser: Kenneth Graf

Joshua Clark
Brandon Porter
Jeffrey Scott
 Information Technology
UNH Web Development Automated Testing
 Adviser: David Blezard

Matthew DiPallina
Richard Lalonde
 Information Technology
Community Engagement for UNH Cyber Center
 Adviser: Kenneth Graf

Austin Fishbaugh
Ethan Paulsen
 Computer Science
Andrew Lee
 Information Technology
Instructor Tools for GitLab
 Adviser: Matthew Plumlee

Cameron Fournier
 Computer Science
IoT Hub with Minim Labs and Raspberry Pi
 Adviser: Tyler Sommer

Devin Gero
Austin Tsao
 Computer Science
Integrating Open Source Learning Tools
 Adviser: Matthew Magnusson

Benjamin Ward
 Information Technology
Profit Tools IT Infrastructure Improvement
 Adviser: Tyler Bedgood

Earth & Ocean Science

Group Leader: Anne Lightbody

Madison Alstede

Earth Sciences

Spatial Variations in Microbial

Metabolism in the South Atlantic Bight

Adviser: Kai Ziervogel

Ella Cedarholm

Earth Sciences

Investigating the Mysterious Deep Cesium from Fukushima

Advisers: Alison Macdonald, Irina

Rypina, Sachiko Yoshida

Jessica Gray

Earth Sciences

The Role of Temperature on the

Regeneration of Nutrients in the

Gulf of Maine

Adviser: Robert Letscher

Xiaoyan Liu

Earth Sciences

Parameter Estimation for Groundwater

Pump Tests

Adviser: J. Matt Davis

Alexandra Melnyk

Earth Sciences

Killifish Mercury Concentrations in

Wells, ME

Adviser: Julia Bryce

Rebecca Philibert

Anthropology, Earth Sciences

Neodymium and Trace Element Analysis of

Clays from the Belize River Valley

Advisers: Julia Bryce, Maria Fahnestock,

Eleanor Harrison-Buck

Sam Segal

Earth Sciences

Effects of Deglaciation on the

Hydrothermal Systems of Yellowstone

National Park

Adviser: Joseph Licciardi

Ty Smith

Earth Sciences

Characterizing Inter-Canyon

Sedimentation in the Krishna Godavari

Basin Offshore India

Adviser: Joel Johnson

Adam Smyth

Earth Sciences

Temperatures' Influence on the Carbon and

Nutrient Supply to Benthic Organisms in

the Gulf of Maine

Adviser: Robert Letscher

Delaney Todd

Earth Sciences

Determining the Magnetic Mineralogy

of Piceance Basin Sediments Using

Isothermal Remanent Magnetization

Adviser: William Clyde

Electrical & Computer

Engineering—Hardware Design

Group Leader: Se Young Yoon

Jakob Anderson

Electrical Engineering

Serial through Audio

Adviser: Michael Carter

Joseph Balsamo

Computer Engineering

Phase Interferometry-Based RF

Direction Finder

Adviser: Kent Chamberlin

Pedro Campos

Alexander Yatzus

Electrical Engineering

Sean Serpa

Computer Engineering

Hybrid Engine Rocket Ignition and Control

Adviser: Se Young Yoon

Joshua Coville

Nathan Steimke

Electrical Engineering

Noise-Cancelling Headphones with Delta-

Sigma A/D Converter

Adviser: Michael Carter

Jonathan Kempf

Electrical Engineering

Synchronous Power Inverter with IEEE

1547 Compliant Protections

Adviser: Michael Carter

Yang-Woo Kim

Wenyuan Qi

Electrical Engineering

Mobile Phone Wireless Charger

Adviser: Michael Carter

Stephanie Lo

Electrical Engineering

The Design and Development of a Modular

Robotic Control Board for Multiple

Applications

Adviser: May-Win Thein

Alexander MacKinnon

Samuel Otis

Brian Otto

Brett Smith

Electrical Engineering

Vision Impaired Tricycle

Adviser: John LaCourse

Anuva Mizan

Electrical Engineering

Decentralized Reactive Power Control for

Photovoltaic Inverter

Adviser: Michael Carter

Michelle Peterson

Electrical Engineering

Harvesting Energy from the Movement

of Trees

Adviser: John LaCourse

Charles Waters

Electrical Engineering

A System for Low-Cost Secure Home

Automation

Adviser: MD Shaad Mahmud

Electrical & Computer

Engineering—Software/Systems Design

Group Leader: Wayne Smith

Hunter Anderson

Computer Engineering

EEG Patterns Related to Variable Learning

in Motor Skills Acquisition

Advisers: Ronald Croce, Wayne Smith

Issam Benabdelkrim

Alfred Odierno

Amadou Tall

Electrical Engineering

Image Processing of Plant Phenotypes

Adviser: Richard Messner

Matthew Bocko

Jordan Zeleny

Electrical Engineering

Vehicle Detection Software for Bikes

and Longboards

Adviser: Edward Song

Joseph Caraccio

Noah Fitter

Benjamin Miller

Computer Engineering

*Using Augmented Reality to Improve
Museum Exhibits*

Adviser: Andrew Kun

Campbell Conrad

Alexander Mullen

Matthew Reagan

Computer Engineering

*Portable Audio Control with Adaptive
Equalizer*

Adviser: Michael Carter

Nadia Fereydooni

Computer Engineering

*Designing an Augmented Reality Interface
for Automated Driving*

Adviser: Andrew Kun

Nadia Fereydooni

Computer Engineering

*Visual Behavior during Engagement with
Tangible and Virtual Representations of
Archeological Artifacts*

Adviser: Andrew Kun

Lauren Gagne

Kasey Hampton

Dylan Silveira

Electrical Engineering

Semi-Autonomous Motorized Aquarium

Adviser: Richard Messner

Nicholas Hurd

Computer Engineering

Luxing Zeng

Computer Science

On-Demand Smart Beverage Maker

Adviser: Edward Song

Jhad Katerji

Daniel Vasilevsky

Computer Engineering

*Autonomous Lane-Keeping Remote-
Controlled Vehicle*

Adviser: Se Young Yoon

Justin Paquette

Ethan Wamsley

Computer Engineering

*Application and Analysis of Vehicle to
Infrastructure (V2I) Communications*

Adviser: Nicholas Kirsch

Environmental Science

Group Leader: Ruth Varner

Kathryn Bennett

Environmental Sciences, Sustainability
*Using Stable Isotope Analysis of Methane
in the Bubbles and Sediment Porewater of
Ponds to Determine Methane Production
Pathways*

Adviser: Ruth Varner

Nathan Blais

Christina Lyons

Environmental Sciences
*Effects of Storage Time and Temperature
on Molecular Analyses of Soil Fauna
Communities*

Adviser: Jessica Ernakovich

Nathan Blais

Environmental Sciences
*Quantifying the Effects of Forest-to-
Pasture and Forest-to-Silvopasture
Conversions on Supporting and
Regulating Ecosystem Services*

Adviser: Alexandra Contosta

Ashley Fortune

Environmental Sciences
*Relationship between Reservoir Storage
and Downstream Flow in New England*

Adviser: Anne Lightbody

Madeline Juffras

Michael Zampini

Environmental Sciences

Clarice Perryman

Earth Sciences

*Scaling Methane Emissions Using
Vegetation Cover Type at Sallie's Fen*

Adviser: Ruth Varner

Margaret Phillips

Environmental Sciences
*The Role of Small Reservoirs in Reducing
Reactive N Export via Denitrification*

Adviser: Wilfred Wollheim

Bonnie Turek

Environmental Conservation and
Sustainability
*Greenhouse Gas Ebullition in Streams
of Varying Watershed Land Use and
Sediment Composition*

Adviser: Wilfred Wollheim

Emily Wilcox

Earth Sciences

*Tracking Snowmelt Dynamics with
Citizen Science Snow Observations in New
Hampshire*

Adviser: Elizabeth Burakowski

Madison Wood

Earth Sciences

Mercury in Wetland Vegetation

Adviser: Julia Bryce

Xiaohang Xue

Earth Sciences

*Water Quality Analysis of the Lamprey
River Watershed*

Adviser: Anne Lightbody

Marisa Yacco

Geography, Sustainability
*Impacts of Warming Winters on Red
Maples in New Hampshire*

Adviser: Mary Stampone

Michael Zampini

Environmental Sciences

*Impact of Nitrogen Inputs on Plant
Composition at a New Hampshire Fen*

Adviser: Ruth Varner

Innovation Scholars

Group Leader: Drummond Biles

Jennifer Barbuto

Bioengineering

Joelle LaFreniere

Mechanical Engineering

Jonathan Nelson

Computer Science

*Collegiate Calendar Aggregator and
Organizer*

Adviser: Timothy Carlin

Allison Bickford

Engineering Physics

Alexander Charest

Mechanical Engineering

Matthew Gigliotti

Cassidy Wilson

Chemical Engineering

*Evaluation of Sunny Day Flooding at
Hampton Beach, New Hampshire*

Adviser: Drummond Biles

Orrin Bliss

Mechanical Engineering

Benjamin Nadeau

Undeclared

Ashley Roy

Computer Science

Semi-Autonomous Plant Grower

Adviser: Timothy Carlin

Samantha Brady

Mechanical Engineering

Kathryn Goldner**Abigail Young**

Bioengineering

Emily Skowfoe

Chemical Engineering

Applying Manufacturing Concepts to an Arduino Robot

Adviser: Oscany Rodriguez-DeJesus

Megan Cramton**Nicole King**

Environmental Engineering

Hannah Miller

Civil Engineering

*Storage Release Curves for Local**Dammed Reservoirs*

Advisers: Drummond Biles,

Anne Lightbody

Evan Dowd**Alexis McGarry****Richard Randall**

Mechanical Engineering

*UNH Innovation Scholars CNC**Machining Lab*

Adviser: Michael Locke

Robert Dowst**Christian Lamers****Christian Workman**

Mechanical Engineering

*Purification of Hemoglobin from Red**Blood Cells Using Tangential Flow**Filtration*

Adviser: Russell Carr

Noah Dumont**Michael Piessens****Jack Schreiber**

Mechanical Engineering

David Holmes

Chemical Engineering

*Calibration of Oscillatory**Environmental Flow Tunnel*

Adviser: Drummond Biles

Jacob Easterling**Conor Harrington****Daniel Kirichok****Jonathan Snow**

Computer Science

Portal Traffic Tracking System

Adviser: Timothy Carlin

Jeffrey Grant**Chloe Onerhime****Matthew Radzelovage**

Mechanical Engineering

Timothy LaPorte

Civil Engineering

Tech 412 Olson Center Giveaway

Adviser: Mohammad Ali Davar Panah

Christopher Howard**Eleonora Olsmats**

Engineering Physics

Lillian Soucy

Physics

Manufacturing a Cheaper, Better CubeSat

Advisers: James Clemmons, Marc Lessard

Andrew LePage**Matthias Page**

Ocean Engineering

Devan Sack

Civil Engineering

Jacob Zercher

Mathematics

*Construction of an Automated**Conductivity, Temperature, and Depth**Sensor for Sound Speed Computation*

Adviser: Val Schmidt

Gillian Martin

Chemistry

Jacqueline Richter

Chemical Engineering

Emma Roberge

Bioengineering

*Conductivity Sensor Calibration to**Determine Ion Concentrations*

Advisers: Drummond Biles, Paula Mouser

Jacob Nardone

Computer Science

Aidan Thayer

Ocean Engineering

Direction of Near Shore Oceanic Waves

Adviser: Drummond Biles

Mathematics & Statistics

Group Leader: Orly Buchbinder

Aylssa Blodgett

Applied Mathematics

Jameela Francis

Mathematics

*Thou Shalt Not Pay Retail: A Statistical**Analysis of Groupon*

Adviser: Michelle Capozzoli

Alyson Caruso

Statistics

Tialyn Eakman**McKenzie Finigan**

Nutrition

*Evaluating Skin Carotenoid Levels via the**Veggie Meter® in College Men and Women*

Adviser: Jesse Morrell

Ryan Collette

Mathematics

*Predictive Effects of Naive Strategies in an**Agent-Based Artificial Stock Market*

Adviser: Adam Boucher

Benjamin Fehr

Mathematics, Sustainable Agriculture and

Food Systems

*Harnessing the Power of Ecosystem**Services to Save the Future of Coffee:**A Bioeconomic Approach*

Adviser: Shady Atallah

Brian Nguyen

Applied Mathematics

*Examining Chaos in a Dynamical System:**The Double Pendulum*

Adviser: John Gibson

Mechanical Engineering— Competition Teams

Group Leader: Ivaylo Nedyalkov

Nicholas Andrade
 Ian Baker
 Philip Bangma
 Regan Beaudreau
 Sawyer Blais
 Shelby Chapman
 Mitchell Conley
 Noah Diggins
 Jessi Frechette
 Sebastian Gazzara
 Alexander Gialluca
 Clayton Greig
 Ryan Intveld
 Eric Krueger
 Matthew Kuba
 Sean Lahey
 Jonathan Lamphier
 Mateusz Mroz
 Sean Petersen
 Mechanical Engineering
 Brian Rainville
 Computer Engineering
UNH Precision Racing Team
 Adviser: Todd Gross

Matthew Barricklow
 Aaron Chapman
 Kimia Fereydooni
 Yanyuan He
 Jonathan Lewis
 Haoming Ni
 Joseph Roylance
 Brennan Smith
 Hongjie Zhang
 Mechanical Engineering
UNH AeroCats
 Adviser: Alireza Ebadi

Samuel Bean
 Civil Engineering
 Sarah Mayer
 Alexander Sparks
 Mechanical Engineering
 Jacob Scarpino
 Environmental Engineering
*2019 ASHRAE Applied
 Engineering Challenge*
 Advisers: Anthony Puntin,
 Christopher White, Martin Wosnik

Ryan Blatti
 Chase Eldredge
 Andrew Hosman
 Silas Johnson
 Tyler Landry
 John Langer
 Charlie Nitschelm
 Collin Stroshine
 Mechanical Engineering
 Thomas Collins
 Engineering Physics
*The Development and Testing of a Hybrid
 Rocket Engine*
 Adviser: Todd Gross

Kyle Brewster
 Michael Goulet
 Jimmy Trinh
 Computer Science
 Aaron Cantara
 Richard Heath
 Benjamin Henry
 Sean Mackenzie
 Ravi Patel
 Jacob Remick
 Joshua Wallace
 Mechanical Engineering
 Keith Nason
 Electrical Engineering
QuadSat Swarm
 Adviser: May-Win Thein

Brian Brophy
 Alex Cerce
 Shaun Kerr
 Tristan Lee
 Brian Mitchell
 Alexander Nees
 Timothy Russell
 Tuller Schricker
 Jacob Shaker
 Kevin Shea
 Benjamin Stadnicki
 Mechanical Engineering
Extra-Terrestrial Navigation Swarm
 Adviser: May-Win Thein

Dylan DiBenedetto-Paris
 Andrew Kostandin
 Jason Lane
 Justin Oliphant
 Katherine Quillin
 Eric Rossi
 Nathan Tetreault
 Mechanical Engineering
 Andrew Goddu
 Tomas Sandstrom
 Computer Science
UNH LunaCats: Mars Mining Robot
 Adviser: May-Win Thein

Mechanical Engineering— Industry

Group Leader: Richard Nash

Christopher Arling
 Andrew Clark
 Matthew Durant
 Jacob Holton
 Mechanical Engineering
*Power-Assisted Handcycle for
 Disabled Cyclists*
 Adviser: Ivaylo Nedyalkov

Elise Baribault-Lee
 Katelyn Dudley
 Lucas Gagnon
 Eric Schliemann
 Spencer Sullivan
 Nicholas Wheeler
 Mechanical Engineering
*Automated Machine Tooling Utilizing
 Mobile Robotics*
 Adviser: Jonathan Bicknell

Andre Chouinard
 Mechanical Engineering
*Cryogenic Temperature Sensor
 Calibration Apparatus*
 Advisers: Timothy Antaya,
 Ivaylo Nedyalkov

Kevin Cole
 Mechanical Engineering
*EasyCFD: Automated Open Source
 Workflow for Computational Fluid
 Dynamics*
 Adviser: Ivaylo Nedyalkov

Matthew Collins

Kyle Lecour

Mechanical Engineering

Rotator Cuff Machine

Adviser: Ivaylo Nedyalkov

Ryan Gaidos

Russell Marki

Mechanical Engineering

OpenFoam Baffle Valve CFD Simulation

Adviser: Ivaylo Nedyalkov

Michael Grenier

Mechanical Engineering

FIRST LEGO League Robot Game Design

Adviser: Brad Kinsey

Alexander Kittler

Mechanical Engineering

Automated Pistol Magazine Speed Loader

Adviser: Ivaylo Nedyalkov

Driss Lakhbal

Jacob Lantner

Liem Nguyen

Mechanical Engineering

Ergonomic and Adaptive Manual

Wheelchair

Adviser: Igor Tsukrov

Nicholas Spiller

Mechanical Engineering

Automated Bearing Sleeve Assembly

Advisers: Todd Gross, Michael Newskey

Mechanical Engineering— Research

Group Leader: Michael Allard

Zachary Amico

Benjamin Froburg

Mechanical Engineering

Ultralight Cooling System for an

Unmanned Aerial Vehicle Sensor Pod

Advisers: Charles Klewicki,

Christopher White

Benjamin Andwood

Connor Byron

Dean Intonti

Olivia LeRay

Mechanical Engineering

Characterizing and Analyzing 3D

Printed Smart Composites

Adviser: Yaning Li

Catherine Argue

Christin Badylak-Reals

Sean McLoud

Thomas Perkins

Mechanical Engineering

Elizabeth Lahti

Environmental Engineering

Evan Silva

Myles Virgin

Jonathan Wallace

Civil Engineering

ZONE Home

Advisers: Gregory Chini, Felix Devito,

Anthony Puntin

Jonathan Carrigan

Mechanical Engineering

Fiber Bragg Grating Annealer

Adviser: James Krzanowski

Anthony Ciccotelli

Nathan Frost

Kyle Horton

Wunderly Rote

Mechanical Engineering

Magnetic Pulse Welding

Adviser: Brad Kinsey

Daniel Laughlin

Dominic Puopolo

Mechanical Engineering

Pressure Gradient Insert for Flow

Physics Facility

Adviser: Christopher White

Andrew Masters

Mechanical Engineering

An Inexpensive Motion Capture System for

Indoor Robotic Systems

Advisers: Sital Khatiwada,

May-Win Thein

Lillian Stewart

Mechanical Engineering

Deep Trouble: Safe Performance

Parameters for Submarine Rescue Units

Adviser: Igor Tsukrov

Nicholas Velte

Zhaokai Yin

Mechanical Engineering

Truck-Railroad Bridge Collision

Prevention System

Adviser: Todd Gross

Ocean Engineering

Group Leader: Camille Poulin

Ryan Bailey

Audrey Balaska

Joseph Steinhauser

Mechanical Engineering

Bret Dusseault

Computer Science

Brett Hoerner

Computer Engineering

Eric Loc

Electrical Engineering

Autonomous Surface Vehicle (ASV)

Advisers: Yuri Rzhanov, May-Win Thein

Julie Berberian

Katherine Hernandez

Ryan Kelly

Mark Torpey

Logan Yotnakparian

Mechanical Engineering

Jennifer Conyers

River Iannaccone

Ocean Engineering

Colin Cressman

Nicholas Pappas

Electrical Engineering

Trevor Lounsbury

Computer Science

Underwater Remotely Operated

Vehicle (ROV)

Advisers: Yuri Rzhanov, May-Win Thein

DanaRose Brown

Ocean Engineering

Abigail Leclerc

Biology

Tracking Marine Organisms and

Submerged Objects with an Underwater

Video System

Adviser: Diane Foster

Dennis Cahill

Tristan Kazo

Shan Li

Ocean Engineering

Acoustic Measurements of Sea Ice

Adviser: Thomas Weber

Matthew Carey

Davis Cole

Christopher Robb

Mechanical Engineering

HiCaT—High Speed Cavitation

Tunnel Restoration

Advisers: Iwaylo Nedyalkov,

Martin Wosnik

Zachary Davonski

Kathryn Trubac

Ocean Engineering

Submersible Aquaculture Cage Model

Advisers: Corey Sullivan, M. Robinson Swift

Tyler Thompson

David Wright

Mechanical Engineering

Living Bridge Motion and Load Study

Adviser: Martin Wosnik

Physics

Group Leader: Ningyu Liu

Tristan Anderson

Physics

Synthesis of TEMPO Doped n-Butanol

Proton Targets

Adviser: Karl Slifer

Thomas Collins

Engineering Physics

Vaporization of Liquid Helium and Low

Temperature Thermometry

Adviser: Karl Slifer

Tan Dao

Physics

Inducing Strain in Atomically Thin Sheets

of Molybdenum Disulfide for Catalysis

Studies

Adviser: Shawna Hollen

Alana Gudinas

Physics

DIST: Defect Identification and Statistics

Toolbox for STM Image Analysis

Adviser: Shawna Hollen

Lucas Jameson

Physics

Solidification of Electronics Grade

Ammonia

Adviser: Karl Slifer

Jordan Loll

Physics

Low Cost Spectrometry: 3D Printed,

Raspberry-Pi Based, and Simple to Operate

Advisers: Elena Long, Anthony Rogers

Benjamin MacDonald

Physics

Surface Structure Determination of

Iridium (111) using Mu LEED-IV

Dynamical Analysis via Low Energy

Electron Microscopy (LEEM)

Advisers: Zhongwei Dai, Karsten Pohl

Kellie McGuire

Physics

3D-Printed mm-Wave Lenses for DNP

Target System

Adviser: Elena Long

Derrek Perham

Engineering Physics

Thermal Management

Adviser: F. William Hersman

Ryan Williams

Physics

Nuclear Magnetic Resonance Using a

Low-Cost Vector Network Analyzer

Adviser: Elena Long

James Yost

Physics

The Simulation of Ammonia Irradiation

Adviser: Karl Slifer

Physics/Space Science

Group Leader: Joseph Dwyer

Daniel Abel

Engineering Physics

IMAP-Lo Entrance Particle Deflector

Adviser: Lynn Kistler

Landon Buell

Physics

The Search for Narrow Bipolar Events

Adviser: Ningyu Liu

Anthony Cappuccio

Physics

Calibration of the Self-Guiding Chip at the

UNH Observatory

Adviser: John Gianforte

Emma Clarke

Physics

Decaying Dark Matter and the Current

Cosmological Data Sets

Adviser: James Ryan

Payson Dunn

Physics

Rotating Electric Field Ion Mass

Spectrograph Instrument Development

Adviser: James Clemmons

Isabella Householder

Physics

Comparing Energetic Electron Flux during

Conjunctions of FIREBIRD and POES

Adviser: Charles Smith

Thomas Ireland

Physics

Improving the Calibration for Photometry

by Eliminating Dark Frames and Flat Fields

Adviser: James Ryan

Evan Jones

Engineering Physics

Design and Testing of a Long Range Laser

Range Finder

Adviser: Amy Keese

Nicholas Larose

Physics

UNH Observatory Exoplanet Transit

Depth Limit

Advisers: John Gianforte, James Ryan

Ronny Nguyen

Physics

A Study of Matter Outflows from a Binary

Neutron Star Merger

Adviser: Francois Foucart

Tornike Shubitidze

Physics

Simulating Lightning Locating Techniques

Adviser: Ningyu Liu

Alison Swanson

Physics

Seismic Data Processing for Naval

Intelligence

Adviser: Joseph Senne

UNH Manchester URC Computing Technology Projects

Poster Presentations

**Wednesday, April 24
4–6 p.m.**

**Pandora Mill, 1st Floor
88 Commercial St., Manchester**

The UNH Manchester Computing Technology program presents its annual Poster Project Presentation Day. This event is the culmination of an academic year effort where students formally present their projects to peers, faculty members, representatives and technical advisers of sponsoring companies, and special guests.

Santiago Gomez

Analytics and Data Science
Analysis of E-Commerce Data
Adviser: Jeremiah Johnson

George Harvey

Computer Science and Entrepreneurship
Internship at BAE Systems Inc.
Adviser: Hong Jin

Aashirya Kaushik

Computer Science
Internship at Colburn Hill Group
Adviser: Hong Jin

Justin Kroh

Computer Information Systems
Internship at CDU Computer Consulting
Adviser: Hong Jin

Mary O'Brien

Computer Science and Entrepreneurship
Redesigning and Implementing My Company's Website
Adviser: Hong Jin

Jared O'Connell

Computer Information Systems
Projecting Graphics Using Scanning Lasers
Adviser: Howard Eglowstein

Monica Pagliuca

Computer Information Systems
Internship Experience
Adviser: Hong Jin

Naina Prasai

Computer Information Systems
Internship at Intervention Insights
Adviser: Hong Jin

Kevin Richardson

Computer Information Systems
Improving Speech Recognition Using Linear Discriminant Analysis
Adviser: Michael Jonas

Arias Talari

Computer Information Systems
Raspberry Pi Project
Adviser: Howard Eglowstein

Arias Talari

Computer Information Systems
Website Development at Professional Development & Training
Adviser: Hong Jin

John Vey

Computer Information Systems
Computerized Solutions to Modern Hydroponic Farming
Adviser: Michael Jonas

UNH Manchester Undergraduate Research Conference

Poster Presentations

**Wednesday, April 24
4–6 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.

Marisa Barden

Neuropsychology
In the Meantime: Understanding the Needs of Unsheltered Homeless Families
Adviser: Alison Paglia

Andrew Barton

Biotechnology
Industrial Microbiology Experience
Adviser: Kyle MacLea

Andrew Barton

Biotechnology
Scanning Electron Microscopy
Adviser: Kristen Johnson

Alexis Boulanger

Biological Sciences
Shadowing a Dental Hygienist
Advisers: Patricia Halpin, Stephen Pugh

Brooke Brennan-Mungovan

Biotechnology
Derek Chaput
Biological Sciences
Organic Gardening Methods of Belize
Adviser: Patricia Halpin

Zachary Brewster

Biological Sciences
A.V.A.T.A.R. (Alignment of Vital Assets to Accelerate Recovery) Externship*
Adviser: Stephen Pugh

Aaron Broady

Biological Sciences
An Investigation of Environmental and Medical Laboratory Career Fields
Advisers: Patricia Halpin, Stephen Pugh

Derek Chaput

Biological Sciences
Owl Genomics: Extraction Method and Comparative Analysis
Advisers: Sarah Prescott, Stephen Pugh

Brooke Chauncey

Biotechnology
Randi Gravelle
Biological Sciences
Health and Biodiversity of Belize Corals
Adviser: Patricia Halpin

Brooke Chauncey

Biotechnology

Randi Gravelle

Biological Sciences

Knock-Down of ARNTL2 Impairs the Migration and Survival of PANC-1 and BXPC3 Human Pancreatic Cancer Cells

Advisers: Kristen Johnson, Stephen Pugh

Allison Dyke

Neuropsychology

Percutaneous Endoscopic Gastronomy Tubes in Huntington's Disease

Advisers: Samuel Frank, Daniel Seichepine

Olivia Eaves

Politics and Society

American Public Policy

Adviser: Stephen Pimpare

Mackenzie Evans

Neuropsychology

The Assessment of Evidence-Based Practices through the Observation of Physician Assistants

Adviser: Daniel Seichepine

Hope Gallant Duffy**Alexander Williams**

Biotechnology

*Mutating *S. cerevisiae* to Determine Effects on Prion Propagation*

Advisers: Kyle MacLea, Stephen Pugh

Emma Ghilardi

Homeland Security, Psychology

Forensic Psychology: Perspectives on Criminal Behavior

Adviser: Nicholas Mian

Summer Golden

Biological Sciences

My Experience as a Phlebotomy Intern at Parkland Medical Center in Derry, New Hampshire

Adviser: Patricia Halpin

Alen Hasanica

Biotechnology

Christine LaPierre

Biological Sciences

Neotropical Ornithology—A Bird's Life in Belize

Adviser: Patricia Halpin

Alen Hasanica

Biotechnology

Quality Control Systems Implementation and Regulation—Future Bioprinting Manufacturing

Adviser: Stephen Pugh

Haley Hood-Hunt

Biology

An Investigation of Careers in the Biotechnology Field

Adviser: Stephen Pugh

Jasmine Huffman

Psychology

I Cannot Tell a Lie: Emotional Intelligence as a Predictor of Deceptive Behavior

Adviser: Nicholas Mian

Lauren Iannazzi

Biological Sciences

Genome Sequence and Analysis of an Unsequenced Bacterium

Adviser: Kyle MacLea

Chantal Jennings

Homeland Security

U.S. Domestic Policy

Adviser: Stephen Pimpare

Selma Jusufovic

Politics and Society

Drug Policy in the U.S.

Adviser: Stephen Pimpare

Subhankar KC

Biological Sciences

The Ecology of Cyanobacteria and Its Role in NH Streams

Adviser: Stephen Pugh

Kara Kelly-Martin

American Sign Language (ASL)/English Interpreting

The Relevance of Repetitive Stress Injuries in American Sign Language-English Interpreters: Deaf, Coda, and Hearing

Adviser: Laurie Shaffer

Angelina LaSala

Biological Sciences

A Glimpse into the Role of a Pharmacist

Adviser: Stephen Pugh

Hannah Markham

Biological Sciences

Copies of p53 Gene and Effects of Cancer in Mammals

Advisers: Sarah Prescott, Stephen Pugh

Ajna Masic

Biological Sciences

Explore the Career of a Retail Pharmacist

Adviser: Stephen Pugh

Kellie Mathewson

Biotechnology

Developing an In Vitro Micropropagation Protocol for the Cultivated Strawberry

Advisers: Lise Mahoney, Megan Thompson

Elizabeth Maurais

Biotechnology

Investigation of Effects on Wnt Signaling Downstream of CGRP Pathway by Receptor Antagonist

Adviser: Kristen Johnson

Claudia Maynard

Genome Sequencing of the Extremely Radiation-Resistant Bacterium

Deinococcus radiophilus ATCC 27603T

Adviser: Kyle MacLea

Claudia Maynard*Impact of Parent Choices on Patient*

Adherence to Medical Advice Regarding Child Concussions

Advisers: Nicholas Mian, Stephen Pugh

Alec McAvoy

Psychology

Ava Parr**Vishnu Soni**

Neuropsychology

The Effects of Grating Orientation, Color, and Target Depth in Motion Induced Blindness and Binocular Rivalry

Adviser: John Sparrow

Meriah Metzger

Politics and Society

Women and Family Policy

Adviser: Stephen Pimpare

Dianne Moschitta

Biotechnology

Meghana Tadeballi

Biological Sciences

Rainforest Remedies in the Jungles of Belize

Adviser: Patricia Halpin

Takuma Okada

Politics and Society

A Policy Overview and Recommended Amendments for SESTA/FOSTA

Adviser: Stephen Pimpare

Sabrina Oliveira

Biological Sciences

Blanca Santibanex Ocampo

Biotechnology

Quantification of Gene Expression by Western Blotting and qPCR of Pancreatic Cancer Cell Lines

Adviser: Kristen Johnson

Madisson Oliwa

Biotechnology

Surgical Shadowing at Southern New Hampshire Medical Center

Advisers: Kristen Johnson, Stephen Pugh

Stephanie Planchet

Biological Sciences

Undergraduate Teaching Assistant and Laboratory Preparation for Biochemistry Course

Adviser: Stephen Pugh

Madelinne Powers

Biotechnology

Cardiopulmonary Bypass with Deep Hypothermic Circulatory Arrest

Adviser: Stephen Pugh

Milto Simoes Junior

Biotechnology

Bacteria Genomic Sequencing

Advisers: Kyle MacLea, Stephen Pugh

Amber Summering

Biological Sciences

Shadowing Medical Professionals

Adviser: Stephen Pugh

Cristina Vazquez

Politics and Society

Public Policy

Adviser: Stephen Pimpare

Nathan Whitehead

Politics and Society

Analyzing Violent Crime: A Multi-Dimensional Approach and Possible Solutions

Adviser: Melinda Negron-Gonzales

Eric Zale

Business, Communication Arts

Parking: A Vital Resource for the Economic Development of the Millyard

Adviser: Thomas Birch

UNH Manchester URC Cinema Arts Day

Thursday, April 25

10 a.m.–12 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.

Brooke Brennan-Mungovan

Biotechnology

Derek Chaput

Biological Sciences

Belize: The Experience

Adviser: Patricia Halpin

Brooke Chauncey

Biotechnology

Randi Gravelle

Biological Sciences

Five Cats and a Coral Reef

Adviser: Patricia Halpin

Ethan Drew

Communication Arts

Normal

Adviser: Anthony Tenczar

Ethan Drew

Communication Arts

Typical Sunday Morning

Adviser: Anthony Tenczar

Logan Frye

Communication Arts

Paranoia

Adviser: Anthony Tenczar

Alen Hasanovic

Biotechnology

Christine LaPierre

Biological Sciences

A Peak into Paradise—Destination Belize

Adviser: Patricia Halpin

Dianne Moschitta

Biotechnology

Meghana Tadeipalli

Biological Sciences

An UnBelizeable Journey

Adviser: Patricia Halpin

Robert Skaff

Communication Arts

Small World

Adviser: Anthony Tenczar

Robert Skaff

Communication Arts

Soda

Adviser: Anthony Tenczar

Anthony Slaybe

Psychology

SHILOH

Adviser: Anthony Tenczar

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

Thursday, April 25

12–5 p.m.

Murkland Hall, Room G02

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.

Jasmin Bach

Anthropology, Spanish

Hannah Matillano

Communication, Spanish

Open Pedagogy in the Classroom: Creating an Interactive Textbook

Adviser: Holly Cashman

Isabelle Banker

Biomedical Science

An Exploration of Prevalence of Access to Care in Post-Hurricane San Juan, Puerto Rico

Adviser: Lucia Montas

Meredith Byerly**Courtney Phillips**

Spanish

Generación 98 en contra de Generación 27 in Spanish Literature

Adviser: Jaume Marti-Olivella

Brigid Carr

International Affairs, Spanish

Poetics of Recovery: Gender and Race Relations in the Aftermath of Natural Disasters in the Greater Caribbean

Adviser: Lori Hopkins

Megan Champagne

Business Administration

Challenges for Latin American Businesses

Adviser: Lucia Montas

Sophia Chun

Political Science, Spanish

Relevance and Representation of Comics in Argentine Culture

Adviser: Daniel Chavez

Kendall Dapprich

Health Management and Policy, Spanish

Ethnicity, Law, and Literature in Latin America

Adviser: Mauricio Pulecio

Catherine Grenier

History, Spanish

Law and Literature in Latin America

Adviser: Mauricio Pulecio

Katherine Heaney

English Teaching, Spanish

Accent Distinctions within the Spanish Language: Focusing on Puerto Rico

Adviser: Holly Cashman

Katherine Heaney

English Teaching, Spanish

Gender Portrayals in Latin American Literature

Adviser: Mauricio Pulecio

Justice Ohanasian

Social Work, Spanish

Exploring Immigration in the Chilean Context

Adviser: Lucia Montas

Courtney Phillips

Spanish

Ethnicity and the Autobiographical in Caribbean Poetry

Adviser: Mauricio Pulecio

The Naked Arts— Creativity Exposed

Act II

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

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

Daniel Faiella

Fine Arts

The Mind's Eye and the Eye's Mind: The Centrality of Observational Memory in Non-Observational Painting

Adviser: Jennifer Moses

Luca Leblanc

Theatre

Historical Theatre for the Modern Audience

Adviser: Deborah Kinghorn

Olivia Noble

English

Above Water

Adviser: Thomas Payne

Julianna Sagliano

Fine Arts

The Psychology of Architecture

Adviser: Jennifer Moses

Philosophy Department Undergraduate Research Conference

Thursday, April 25**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.

Christopher Foster

Electrical Engineering, Philosophy

Planned Obsolescence: Over Damping Progress

Adviser: Jennifer Armstrong

Julian Gale

Justice Studies, Philosophy

The Right before the Good: A Rawlsian Reassessment

Adviser: Ruth Sample

Jennifer Gallagher

History, Philosophy

Ecofeminism and Animal Ethics

Adviser: Jennifer Armstrong

Gregory Kula

Philosophy

Artificial Intelligence: Morality and Personhood

Adviser: Willem deVries

Clio Walsh

Philosophy, Psychology

The Act of Essentializing

Adviser: Charlotte Witt

Dylan Wheeler

Information Technology, Philosophy

The Ability for Artificial Intelligence to Create and Spread Disinformation

Advisers: Betsy Coleman, Nicholas Smith

All Colleges Undergraduate Research Symposium

Welcome Breakfast

Friday, April 26

9–9:30 a.m.

**Memorial Union Building,
Granite State Room**

This informal gathering gives students, faculty and attendees an opportunity to visit with 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 26

9:30–10:40 a.m.

Memorial Union Building

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

MUB, Room 233

China: Global Impact and Local Dynamics

Moderator: Jeannie Sowers

Madison Ferreri

International Affairs, Political Science
Chinese Foreign Direct Investments in Africa

Adviser: Smita Lahiri

Jacob Werner

Environmental and Resource Economics, International Affairs
The Role of Communal Shame on Chinese Behavior Modification in the Context of Climate Change

Adviser: Thomas Safford

Weicong Zeng

International Affairs, Political Science
Chinese Investment and Development in Developing Countries

Adviser: Thomas Safford

MUB, Room 321

Constructing Culture, Gender, and Identity in Europe and Asia

Moderator: Daniel Chavez

Adam Bovie

Communication, International Affairs
Heir to Finn: Comparing Mythological and Modern Narratives of Irish Identity

Adviser: Thomas Safford

Natalie Hannabury

International Affairs, Political Science
Domesticated by the Nation: A Comparative Look into South Korean Masculinity

Adviser: Smita Lahiri

Nkechi Kamalu

Anthropology
Black Culture and Life in Japan: What People Think vs. What It Really Is

Adviser: Thomas Safford

Samantha Starkey

International Affairs, International Business and Economics
Nationalism and Soccer in Spain
Adviser: Smita Lahiri

MUB, Room 302

International Aid and Foreign Investment

Adviser: Lawrence Reardon

Moderator: Lionel Ingram

Jarrold Cobb

International Affairs, Political Science
The Green Leap Forward

Stephanie Langlais

Political Science
The Misuse of Foreign Aid: Misdirection, Corruption, and Terrorism

Rory O'Neil

International Affairs, Political Science
Evaluating the Relationship between Conditionality and Foreign Aid Reliance: A Case Study of Jordan

Hayden Proborowski

International Affairs, Political Science
Shifting Gears: German Investment in the Hungarian Car Industry

James Rudolph

Political Science
Joining the Club: Reform in Saudi Arabia

Austin Sullivan

Communication, Political Science
The Creation of a Foreign Investment Hub in Dubai

MUB, Room 207

Multidisciplinary Session I: Neuroscience and Psychology

Moderator: Katherine Lee

Morgan Howard

Psychology
Treating Survivors of Sexual Assault with Cognitive Behavioral Therapy: A Review of Treatment Effectiveness, Implications, and Future Directions

Advisers: Katie Edwards, Katherine Lee

Briana Silck

Neuroscience and Behavior, Psychology
*The Impact of Empathy on Moral Reasoning
 Brain Network Activity*
 Adviser: Robert Ross

Avery Van De Water

Neuroscience and Behavior
*Dynamic Causal Modeling of the
 Speech Network in Stroke-Induced
 Apraxia of Speech*
 Adviser: Donald Robin

MUB, Room 203
**Multidisciplinary Session II:
 It's All Greek to Me**

Moderator: Harriet Fertik

Jacob Compagna

Classics
*Larger Than Life—Putting Giant Beings
 within Greek Myth on the Map*
 Adviser: Robert Smith

Connor Liska

Classics
*Valens and the Identity of a Late 4th
 Century Emperor*
 Adviser: Harriet Fertik

Rachael Moss

Humanities
*Liminal States and the Resulting Agency with
 Regards to Marriage and Death in Ancient
 Greek Female-Centric Literature and Plays*
 Advisers: Nicole Ruane,
 Stephen Trzaskoma, Ann Zimo

Zak Schlichtmann

Classics
*Can Foreigners Be Roman Senators? A
 Comparison of Livy, Claudius, and Tacitus*
 Adviser: Harriet Fertik

Ari Toumpas

Classics
*Mythical Genealogy in Pausanias'
 "Description of Greece"*
 Adviser: Robert Smith

MUB, Room 237
**Multidisciplinary Session III: Cows,
 Carnivores, and Kinesiology**

Moderator: Melissa Rodgers

Sharlene Amador

Biochemistry, Molecular and
 Cellular Biology
Colin McGonagle
 Biomedical Science
*Epidemiology of Staphylococcus Bacteria
 from Pets and Wild Carnivores in
 New England*
 Adviser: Cheryl Marie Andam

Brittany Royer

Kinesiology
*Assessment of High-Velocity Blood Flow
 Restricted Resistance Training*
 Adviser: Summer Cook

Jessica Sexton

Animal Science
*Effect of Selenomethionine Hydroxy Analog
 (Se-MHA) in the Form of Selisseo (2% Se)
 on the Concentration of Selenium in Milk
 and in Blood for Mid and Late Lactation
 Holstein Dairy Cows*
 Adviser: Nancy Whitehouse

Teigue Young

Kinesiology
*Measurements of Muscle Thickness by
 Ultrasound Imaging Following Blood Flow
 Restricted Exercise*
 Adviser: Summer Cook

MUB, Room 336
**Music, Makers, and Messaging:
 Selected Papers in Communication**

Moderator: Kate Zambon

Ryan Brander

Communication
The Ethos of Punk and the Aging Identity
 Adviser: Robert Jackson

Brianna Donovan

Genevieve Grasso
 Communication
*Social Media and Technology in
 Maker Culture*
 Adviser: Lin Zhang

Elena Gregory

Communication
*President Trump's Usage of Hyperbole
 within the First 2016 Presidential Debate*
 Adviser: Michelle Gibbons

Hannah Matillano

Communication, Spanish
*The Cultural Impact of Studio Ghibli Films
 on Young Asian-Americans*
 Adviser: Lin Zhang

Qiqi Yang

Tianshu Zhu
 Communication
J-Pop vs. K-Pop: A Comparative Study
 Adviser: Lin Zhang

MUB, Room 338
Politics and Policy in Europe

Moderator: Smita Lahiri

Quincy Abramson

International Affairs, Italian Studies
*The Dysfunctional of the Italian
 Government: Structural and Electoral
 Issues over the Past Century*
 Adviser: Thomas Safford

Katherine Gross

International Affairs, Spanish
Youth Unemployment in Spain
 Adviser: Smita Lahiri

Andrew Jablonski

French, German, International Affairs
*Tackling the Issue of Anti-Semitism in a
 Modern Germany: Why It's Happening and
 How to Prevent It from Spreading Further*
 Adviser: Thomas Safford

Sherman Spears

International Affairs, Political Science
*Germany and the World: The Role of
 Germany in International Organizations*
 Adviser: Thomas Safford

Shelby White

International Affairs, Political Science
Strike Culture and Its Impact in France
 Adviser: Smita Lahiri

MUB, Room 330**Prevention Innovations
Research Center Intern Panel**

Adviser: Jane Stapleton
Moderator: Rebecca Ludecke

Alyssa Antman
Social Work
It's On Us + Proposal

Sarah Filion
Biochemistry, Molecular and
Cellular Biology
*Sexual Assault Nurse Examiners (SANE)
and the USafeUS Application*

Jennifer Plourde
Justice Studies, Sociology
*Incidence of Sexual Assault on College
Campuses: Where We Are Now and
Where We Can Be*

Alicia Popielarczyk
Emily Smith
Communication
*Increasing PIRC Instagram Followers
Using Instagram Stories*

Michaela Vivian
Psychology
*The Effectiveness of Resident Hall
Informational Bulletin Boards to College
Students at the University of New
Hampshire about the uSafeUS Application*

MUB, Theatre I**Students of Anthropology:
Public, Practicing, and Engaged**

Moderator: Sara Withers

Caroline Aubry
Dylan Crupi
Anthropology
*Why We Share Our Dreams: Dream
Communication Context on the
College Campus*
Adviser: Sara Withers

Jeffrey Baron
Anthropology
Caitlin Burnett
Anthropology, Sustainability
*Indigenous New Hampshire Collective
Collaborative: Decolonizing History*
Adviser: Svetlana Peshkova

Riley Boss
Anthropology
*Preserving a Lost Village: Ground Truthing
Residual Foundations from the Great
Flood of 1938 in East Weare,
New Hampshire*
Adviser: Meghan Howey

Miles Gross-Santos
Madison Maksy
Danielle Toland
Anthropology
*Curating from Scratch: An African
(American) Heritage Collection, from
Donation to Exhibition*
Adviser: Casey Golomski

Abrita Kuthumi
English, International Affairs
*Addressing the Disconnect between
International Students and American
Students at the University of New Hampshire*
Adviser: Sara Withers

Ian Lichtenstein
Biomedical Science
*Everyday Adaptability in Ghanaian
Hospital Laboratories*
Adviser: Casey Golomski

MUB, Room 340**Water, Energy, and Waste
around the World**

Adviser and Moderator:
Thomas Safford

Abraham DeMaio
Civil Engineering, International Affairs
*The Persistence of Waste Management
Issues in Senegal: A Case Study*

Philip McHenry
Environmental Engineering,
International Affairs
*The Role of Public Perception in Germany's
Energy Turnaround*

Light Mcharo
Environmental Sciences,
International Affairs
*Household Access to Water in Kinondoni
District of Dar es Salaam, Tanzania*

Arseniy Shapovalov
International Affairs, Marketing
*Role of Solar in North America's Transition
to a More Reliable Electrical Grid*

MUB, Room 332**Women's and Gender Studies**

Moderator: Avary Thorne

Emma Chinman
Women's Studies
*Geographic Racism and Its Effect on
Grocery Gaps and Supermarket Redlining*
Adviser: Avary Thorne

Dow Drukker
Sociology
*The Making of Hegemonic Masculinity:
Privileging Whiteness in Western Schools*
Adviser: Aria Halliday

Evan England
Sociology
*Discreet Masc: Non-Heterosexual Male
Identities in Urban and Rural New
Hampshire*
Adviser: Peter Welch

Peri Sanechiaro
English Teaching, Women's Studies
*Contemporary Masculinity in College
Fraternity Men*
Advisers: Aria Halliday, Siobhan Senior,
Peter Welch

MUB, Room 334***Xinjiang, Terrorism, and
"Re-Education Camps"***

Adviser: Lawrence Reardon

Moderator: Michele Dillon

Isaiah Cornell

Political Science

*Cultural Genocide in Xinjiang?***Sean Cotter**

Political Science

*Re-Educating Uighurs: The Detention of
Muslim Minorities in Internment Camps***Sigurdur Geirsson**

Political Science

*The Causes of Uyghur Persecution***Victor Hugo**

Political Science

*The Ongoing Genocide***Dominick Morrill**

Business Administration, Political Science

*Examining the Ethnic Conflict within
Xinjiang***Alden Skillings**

Political Science

*Ethnocentric Views and Religious
Repression in Xinjiang***All Colleges
Undergraduate
Research Symposium****Poster Presentations, Session A****Friday, April 26****9:30–10:40 a.m.****Memorial Union Building,
Granite State Room**

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Emily Almquist

English Teaching

*Engaging Readers beyond the Classroom:
Library Programs for Young Adults*

Adviser: Laura Smith

John Ball**Krista Mastrogiacono**

Biomedical Science

*Exploring the Diversity of Antibiotic-
Producing Streptomyces Bacteria from
Odiorne Point State Park Salt Marsh and
Drowned Forest*

Adviser: Cheryl Marie Andam

Juliana Belar

Kinesiology

*Hitting the Jackpot: Coaches' Perceptions of
the Most Effective Leadership Qualities in
Women's Collegiate Sport*

Adviser: Karen Collins

Aylssa Blodgett

Applied Mathematics

Jameela Francis

Mathematics, Statistics

*Thou Shalt Not Pay Retail: A Statistical
Analysis of Groupon*

Adviser: Michelle Capozzoli

Kailee Brachman-Pappas**Sofia Lombardo**

Psychology

Spatial Frequency Effects on Stereo Acuity

Advisers: Andy Kitt, Joseph LaBarre,

John Sparrow, William Stine

Shannon Bryant

Communication Sciences and Disorders

Language Performance in Parkinson's Disease

Adviser: Amy Ramage

Hailey Buck

Political Science

Acceptance of the Female Role in Combat Arms

Adviser: Dante Scala

Nicole Bumbera

Zoology

*Distribution and Abundance of *Crassostrea
virginica* Larvae in the Great Bay, NH*

Adviser: Jenn Dijkstra

Hannah Burke

Occupational Therapy

*Healthy Families: An Investigation into
Factors That Promote Robust Family Health
for Families Raising Children with Autism
Spectrum Disorder*

Adviser: Sarah Smith

Austin Butler

Environmental Sciences

*Using Permanganate Oxidizable Carbon to
Determine the Impact of Organic Dairy Land
Management on Soil Fertility*

Advisers: Stuart Grandy,

Scott Greenwood

Brady Clarke

Marine, Estuarine and Freshwater Biology

*Understanding the Future of Oyster
Aquaculture in the Great Bay: Applications
of the IPCC Anticipated Ocean**Acidification Impacts*

Adviser: Larry Harris

Marianna Conserva

Anthropology, Communication

Olivia Guzman

Anthropology

*Indigenous New Hampshire Collective
Collaborative: Education, Activism, and
Local Focus*

Adviser: Svetlana Peshkova

Kelsey Crowley

Political Science

How to Get Ahead

Adviser: Dante Scala

Sadianne D'Andreti**Catherine Peraro**

Biomedical Science

Bridget Peterson

Neuroscience and Behavior

The Effects of Contrast Polarity on Motion Induced Blindness

Advisers: Andy Kitt, Joseph LaBarre, John Sparrow, William Stine, Dan Swift, Erika Wells

John Domenico

Nursing

The Relationships of College Students and How They Discuss This with Their Healthcare Provider

Advisers: Alyssa O'Brien, Joanne Samuels

Maura Donovan**Sophie Kenny****Madeline Quigley**

Nutrition

Understanding Male College Athletes' Perceptions Related to the Purpose of Body Composition Assessment Using Air Displacement Plethysmography

Adviser: Kevin Pietro

Faith Farnham

Nursing

A Review of Treatments for Gastrointestinal Symptoms in Children with Autism Spectrum Disorder

Adviser: Elizabeth Humphreys

Crystina Frieze

Anthropology, Justice Studies

Burning Up and Breaking Up: Understanding Heat-Induced Bone Modifications in a Hungarian Bronze Age Cemetery

Adviser: Amy Michael

Cynthia Gluck

English/Journalism

How Issuing Green Bonds Is Creating Shared Value

Adviser: Fiona Wilson

Cailee Griffin

International Affairs, Political Science

Citizens' Confidence in Democratic vs. Dictatorial Governments

Adviser: Dante Scala

Hayden Harrington

Justice Studies, Political Science

Do More Gun Laws Increase or Decrease Gun Violence?

Adviser: Dante Scala

William Johnson

Political Science

Political Party Affiliation and U.S. Geography

Adviser: Dante Scala

Evan Kelly

Political Science

Disillusionment in Government Institutions

Adviser: Dante Scala

Nathaniel Kinsman

Marine, Estuarine and Freshwater Biology

*"Not So Lice": Developmental Sampling Methods of Sea Lice on UNH Caged Steelhead Trout (*Oncorhynchus mykiss*)*

Adviser: Elizabeth Fairchild

Hannah Lambert

Political Science

The Effect of Income Class on Political Egalitarianism

Adviser: Dante Scala

Jessica Lee

Communication Sciences and Disorders

Semantic Network Resting State Connectivity in Healthy Controls and Stroke Victims

Adviser: Amy Ramage

Samantha Leef

Biomedical Science

A Developmental Study of Apoptotic Markers and Histamine Receptors in Cephalopod Statocysts

Adviser: David Needle

Robert Lenox-Pulgarin

Genetics

Effect of Selenium on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine Luteal Cells

Adviser: Paul Tsang

Jennika Mannesto*Human Development and Family Studies Stress and Mood as Predictors of Maternal Caregiving in the Preschool Period*

Adviser: Jill Sherman

Claire Martindale

Nursing

For Low-Risk Women in the Seacoast of New Hampshire, How Does Geographical Location, Culture and Socioeconomic Status Predict the Availability of Different Birthplaces and/or Providers?

Adviser: Joanne Samuels

Patrick McCann

Political Science

The Economic Impact of Urbanization

Adviser: Dante Scala

Mackenzie Meier

Zoology

Bryde's Whale Call Structure and Seasonal Distribution in the Equatorial Pacific

Advisers: Daniel Howard, Jennifer Miksis-Olds

Nicholas Miller

Biomedical Science

Effect of Aging on Sensorimotor Processing: An ERP and Response Time Investigation

Adviser: Ronald Croce

Matthew Morris

Wildlife and Conservation Biology

Identifying Dispersal Corridors for the Endangered New England Cottontail

Advisers: Ethan Belair, Steven Roberge

Curtis Newton

Political Science

Incumbency Approval vs. Congressional Approval

Adviser: Dante Scala

Kenny Nguyen

Biology

The Integration of Biology and Calculus: Qualitative Assessment of the Influence of a Biocalculus Course on Students' Attitudes toward Mathematics

Adviser: Melissa Aikens

Hannah Nordstrom

Psychology

Investigating How the Perception of School Climate Factors Influences Bystander Behaviors of High School Students during Instances of Dating and Sexual Violence
 Adviser: Victoria Banyard

Sadie O'Malley

Justice Studies, Political Science

Abortion through Other Eyes
 Adviser: Dante Scala

Sarah Phelps

Kinesiology

Leaders in the Making: The Development of Skills and Strategies of an Effective Leader in Women's Collegiate Sport
 Adviser: Karen Collins

Rebecca Philibert

Anthropology, Earth Sciences

Neodymium and Trace Element Analysis of Clays from the Belize River Valley
 Advisers: Julia Bryce, Maria Fahnestock, Eleanor Harrison-Buck

Chloe Pilgrim

Neuroscience and Behavior, Psychology

Differential Effects of Acute vs. Chronic Stress on Serotonin and Corticosterone in Female Rats
 Adviser: Robert Drugan

Alexander Pimentel

Neuroscience and Behavior

Examining the Effect of Retrograde Neurotoxin in Terminating Cell Projections in the Cortex and Its Impact on Originating Cell Bodies in the Locus Coeruleus
 Adviser: Jill McGaughy

Casey Poirier

Biology

Quantifying Movement Agreement between Therapist and Patient
 Advisers: Thomas Foxall, Dain LaRoche

Ryan Puterbaugh

Biochemistry, Molecular and Cellular Biology

Biological Applications of NMR Spectroscopy
 Adviser: Krisztina Varga

Marisa Rafal

Human Development and Family Studies

An Analysis of Extracurricular Participation: Effects on Child Development and Family Dynamics
 Advisers: Kimberly Nesbitt, Jill Sherman

Justin Randle

Political Science

Political Analysis of Attitudes towards the Press
 Adviser: Dante Scala

Addison Reed

Political Science

Are Veterans Really Conservative?
 Adviser: Dante Scala

Sarah Rosatone

Educational Studies, Social Work

Youth Disability Victimization: An Analysis of the Youth Bias Victimization Questionnaire (YBVQ)
 Adviser: Lisa Jones

Lauren Schoeller

Biomedical Science

Comparison of Muscle Quality Measurements across Varying Types of Muscle Contractions in Young and Older Adults
 Adviser: Summer Cook

Jemina Shepherd

Economics

The Impact of Technical Economic Language on Students' Understanding
 Adviser: Scott Lemos

Heidi Simoneau

Environmental Sciences, Justice Studies

Effects of Dams on Water Quality
 Adviser: Wilfred Wollheim

Kayla Sliz

Psychology

Through the Eyes of a Captain: The Skills and Strategies of an Effective Leader in Women's Collegiate Sport
 Adviser: Karen Collins

Casey Sturzo

Animal Science

Biological Role of Forkhead Box A2 (FOXA2) in Endometrial Cancer
 Adviser: Thomas Spencer

Kassandra Varney

Occupational Therapy

Perception of a Health and Wellness Curriculum in an Adolescent Day Camp
 Adviser: Barbara White

Jaylene Velasquez

Health Management and Policy

The Use of Stimulant Medication and Opioid Medication by College Students
 Adviser: Barbara White

Noah Waller

Neuroscience and Behavior

Regional Brain Activation in Chronic Pain: A Quantitative Meta-Analysis for Therapeutic Protocol
 Adviser: Donald Robin

Dylan Wheeler

Information Technology, Philosophy

The Ability for Artificial Intelligence to Create and Spread Disinformation
 Advisers: Betsy Coleman, Nicholas Smith

Kylee Wrath

Biomedical Science

Diagnostic Findings in 140 Marine Mammals Examined at the New Hampshire Veterinary Diagnostic Laboratory 2009-2018
 Adviser: David Needle

Dania Zaiter

Genetics

Exploring the Potential of Marine Actinobacteria as Source of Novel Antibiotics
 Adviser: Cheryl Marie Andam

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

Adviser: Molly Campbell

Margaret Champagne

English

Fashion and Lifestyle Blog

Walter Collier

Information Systems and

Business Analytics
NH Net-Zero Homes

Michaella Conery

English

Women in Running

Ryan Donahue

English

English Majors in the Business Field

Jace Eaton

Neuroscience and Behavior

CBT for College Students: A Website

Ryen Gallagher

Recreation Management and Policy

Let's Talk Quality Control in Health Care

Grace Hanley

English/Journalism

Work in Progress: A Blog

Elizabeth O'Connor

English

Book News and Resources for Young

Readers: A Website

Kathleen Smith

English

LGBTQ+ Representation in the Media

MUB, Granite State Room

Sustainability Dual Majors

Emily Bean

Economics, Sustainability

Jodi Bezanson

Anthropology, Sustainability

Timothy Readdean

Marine, Estuarine and Freshwater

Biology, Sustainability

Casey Shea

Sustainability, Women's Studies

Daniel Sheldon

Accounting, Sustainability

Zero Waste

Adviser: Vanessa Levesque

Jacob Beanland

Geography, Sustainability

Caitlin Burnett

Anthropology, Sustainability

Cassidy Yates

Environmental Engineering,

Sustainability

Sustainability in Business: The B Corp

Certification Process

Adviser: Vanessa Levesque

Kathryn Bennett

Environmental Sciences, Sustainability

Clayton Bentley

Information Systems and Business

Analytics, Sustainability

Quinn Curtis

International Business and Economics,

Sustainability

Haley Puntin

Environmental Engineering,

Sustainability

Marisa Yacco

Geography, Sustainability

Campus Resilience at UNH, Durham

Advisers: Vanessa Levesque,

Cameron Wake

Sumner Bright

English/Journalism, Sustainability

Dean Herrick

Environmental and Resource Economics,

Sustainability

Cameron Perkins

Philosophy, Sustainability

Timothy Putnam

Information Systems and Business Ana-

lytics, Sustainability

University of New Hampshire

Sustainability Campus Tour

Adviser: Vanessa Levesque

**All Colleges
Undergraduate Research
Symposium**

Oral Presentations, Session B

Friday, April 26

10:50 a.m.–12 p.m.

Memorial Union Building

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

MUB, Room 203

***Archaeological Excavation,
Ethics, and Repatriation***

Adviser and Moderator: Amy Michael

Ciara Devereaux

Biology

Kailey Parker

Audrey Waterman

Anthropology

Pathology, Taphonomy, and Trauma

Analysis of the Burials from Caesarea

Maritima

Ciara Devereaux

Biology

Katherine Dubois

Neuroscience and Behavior

Hannah Harkins

Kailey Parker

Victoria Slight

Audrey Waterman

Anthropology

Rebecca Holland

Anthropology, Philosophy

Shannon McKelvey

English Literature

Lilia Vinskus

Biochemistry, Molecular and

Cellular Biology

Restorative Justice in Bioarchaeology?

Reflections on Teaching with, Learning

from, and Handling Human Remains

Rebecca Holland

Anthropology, Philosophy

History of the Caesarea Maritima: An

Exploration of Regional History with an

Emphasis on the Cultural World

Shannon McKelvey

English Literature

Kailey Parker

Victoria Slight

Audrey Waterman

Anthropology

Biological Profiles of the Burials from

Caesarea Maritima

MUB, Room 338**Art, Architecture, and Aging in Asia and Europe**

Moderator: Smita Lahiri

Veronica Chambers-O'Bryan

Information Technology,
International Affairs
Japan's Social Stigmas and the Declining Population
Adviser: Thomas Safford

Victoria Cortez

International Affairs, International
Business and Economics
Building Catalonia: How the Architecture of Catalonia Demonstrates a Separate Cultural Identity
Adviser: Smita Lahiri

Carissa Mak

Civil Engineering, International Affairs
Scottish Castles Past and Present
Adviser: Thomas Safford

Drucilla Sargent

Art: Art History, International Affairs
Iconography of Florence and the Identity of David
Adviser: Thomas Safford

MUB, Room 340**Challenges and Opportunities in International Development**

Moderator: Thomas Safford

Christopher Cota

International Affairs, Political Science
Energy Governance in the European Union: Goals and Policies
Adviser: Smita Lahiri

Amada Guapisaca

Economics, International Affairs
How the Other Half Lives: How Brazil Created the Favela Crisis
Adviser: Thomas Safford

Tyler Hoyle

Economics, International Affairs
The Effect of Microfinance on Education and Women Empowerment
Adviser: Thomas Safford

Elizabeth O'Malley

Economics, International Affairs
Preparing for Sustainable and Inclusive Urban Growth in the Developing World
Adviser: Smita Lahiri

Clayton Pituck

Environmental and Resource Economics,
International Affairs
The Development of a One Product Economy
Adviser: Thomas Safford

MUB, Room 302**Challenging the Strategic Balance in Regional Hot Spots**

Adviser: Lawrence Reardon

Moderator: Lionel Ingram

Tristen Bianco

Political Science
Sino-Pakistani Arms Trade: Implications for U.S. Security Strategy in Central Asia

Parker Hudson

Political Science
Playing the Blame Game: North Korea as a Global and Domestic Threat

Patrick McCann

Political Science
Territorial Disputes in the East China Sea

Christopher Riley

Political Science
U.S. Economic Strategy in the Syrian Civil War

Weicong Zeng

International Affairs, Political Science
The Benign Chinese Expansion

MUB, Room 336**Comm-entary: Published Papers in Communication**

Moderator: R. Michael Jackson

Hannah Baum

Communication
"We Are the Crystal Gems": Themes of Identity within Steven Universe
Adviser: Joseph Terry

Emily Bourne

Communication
Nike's Song and Music Video
Adviser: Joseph Terry

Taylor Chieffalo

Communication
Street Art: A Crime or a Movement
Adviser: Kate Zambon

Kristiana Osborne

Communication
How a Generation Is Changing a Century-Long Stigma
Adviser: Michael Soha

Grace Smith

Communication
Living Life on the Fringe
Adviser: Michael Soha

MUB, Room 321**Honors Research in Communication**

Moderator: Michelle Gibbons

Kelsey Flannery

Communication
The Effectiveness of the Anti-Internet Crusade: A Rhetorical and Content Analysis
Adviser: Michelle Gibbons

Lindsey Hall

Communication
Media in Crisis: Journalistic Norms in Natural Disaster Coverage
Adviser: Kate Zambon

Kali Mondor

Communication

Sports Fanatics in Action: How Language and Social Interaction Concepts Apply to Talk about Sports

Adviser: Edward Reynolds

Nicole Paterson

Communication

One Nation, Successfully Divisible: American Mythology in Political Rhetoric

Adviser: James Farrell

MUB, Room 330

Migration and Integration: North Africa and Europe

Moderator: Funso Afolayan

Andrew Geib

International Affairs, Political Science
Refugee Impact on Political Stability in Merkel's Germany

Advisers: Smita Lahiri, Charles Vannette

Rory O'Neil

International Affairs, Political Science
Urban Refugee Integration: An Investigation of Policy and Practice in Jordan

Adviser: Smita Lahiri

Hayden Proborowski

International Affairs, Political Science
Who We Are: Comparing French Right-Wing Ideas on Citizenship and Identity

Adviser: Smita Lahiri

Dylan Sanborn

International Affairs

The Economic Impacts of Immigrants and Asylum Seekers in Germany after WWII

Adviser: Thomas Safford

Erica Spino

International Affairs, Psychology

Mental Health of Syrian Child Refugees

Adviser: Smita Lahiri

MUB, Room 207

Multidisciplinary Session IV: Politics, AI, and Storytelling

Moderator: Jeanne Sokolowski

Nelson Idahosa

Political Science

Did Gerrymandering Affect the 2016 Congressional Elections and Did Gerrymandering Suppress the Electorate's Vote in the 2016 Congressional Election?

Adviser: Andrew Smith

Casey Kimball-Marfongelli

English

A Semester of Storytelling

Adviser: Jaed Coffin

Elizabeth O'Connor

English

A Study of Crafting Contemporary Short Stories

Adviser: Jaed Coffin

Dylan Wheeler

Information Technology, Philosophy
The Ability for Artificial Intelligence to Create and Spread Disinformation

Advisers: Betsy Coleman, Nicholas Smith

MUB, Room 332

Multidisciplinary Session V: Politics and Society

Moderator: Katherine Abbott

Sonja Heels

Sociology

Making Meaning of Consent: A Content Analysis

Advisers: Catherine Moran, Nena Stracuzzi

Raissa Lima

Justice Studies, Political Science

Does Peacekeeping Reduce Violence? Assessing Effectiveness of Peacekeeping Operations in Mali

Adviser: Alynna Lyon

Brennan Pouliot

Justice Studies, Political Science

Education, Career Paths, and Personal Motivations of U.S. Immigration Lawyers

Adviser: Katherine Abbott

Sydney Rice

Kinesiology

Violence in Society: Willful Ignorance in Accordance with Scapegoating

Adviser: Nicole Ruane

MUB, Room 237

Multidisciplinary Session VI: Explorations in Sustainability and Service

Moderator: Faina Bukher

Brady Clarke

Marine, Estuarine and Freshwater Biology
Understanding the Future of Oyster Aquaculture in the Great Bay: Applications of the IPCC Anticipated Ocean Acidification Impacts

Adviser: Larry Harris

Bryan Dwyer

Community and Environmental Planning
Potential Economic Impact of Public Use Trails in New Hampshire

Adviser: Shannon Rogers

Jennah Landgraf

Environmental Engineering
Pepsico as a Model for Sustainable Business

Adviser: Fiona Wilson

Hailey Raudat

Psychology

How Perceived Neighborhood Support Relates to Adolescent Community Service Motivation

Adviser: Andrew Rizzo

MUB, Theatre I

Multidisciplinary Session VII: Clinical Aspects of Health and Fitness

Moderator: Vidya Sundar

Victoria Bandera

Kinesiology

Functional Demand and Maximal Strength in Older Female Cancer Survivors Who Have Completed Cancer Treatment

Adviser: Dain LaRoche

John Domenico

Nursing

The Relationships of College Students and How They Discuss This with Their Healthcare Provider

Advisers: Alyssa O'Brien, Joanne Samuels

Francis Gesel

Kinesiology

Effects of Acute Static and Ballistic Stretching on Muscle-Tendon Unit Stiffness, Work Absorption, Strength, Power, and Countermovement Vertical Jump Performance

Adviser: Dain LaRoche

Taela Leek

Nursing

Evidenced Based Practice in NH Hospitals: Therapeutic Hypothermia

Advisers: Elizabeth Evans, Joanne Samuels

Emily Morenz

Kinesiology

Effects of Acute Static and Ballistic Stretching on Countermovement Vertical Jump Performance

Adviser: Dain LaRoche

Kimberly Reilly

Occupational Therapy

When They're in My Arms: An Evaluation of Occupational Risk Factors among Childcare Professionals

Adviser: Vidyalakshmi Sundar

MUB, Room 233**Nationalism and Conflict: Russia/Ukraine, Hungary, and Israel/Palestine**

Moderator: Jeannie Sowers

Alexander Dicker

History, International Affairs

How Russia Has Defined Modern Ukrainian Nationalism

Adviser: Smita Lahiri

Brianna Kretkowski

History, International Affairs

U.S. Sanctions on the Russian Federation

Adviser: Smita Lahiri

Arianna Lemieux

International Affairs, Russian

The Portrayal of Vladimir Putin in Russian Media

Adviser: Smita Lahiri

Schuyler Vaillancourt

Economics, International Affairs

U.S. Foreign Aid in the Israel-Palestine Conflict

Adviser: Smita Lahiri

Marinda Weaver

International Affairs, Justice Studies,

Psychology

Women and Hungarian Nationalism Post-Soviet Occupation

Adviser: Thomas Safford

MUB, Room 334**Problems of Asian Economic and Political Development**

Adviser: Lawrence Reardon

Moderator: Peter Carey

John Ahonen

Political Science

*Challenges of Late Economic Development***Christopher Cota**

International Affairs, Political Science

*China's Energy Policy: Reducing Carbon Emissions While Maintaining Production?***Kimberly Gravin**

French, Political Science

*Fixing China's Gender Imbalance***Aristedes Manthous**

International Affairs, Political Science

*Reconsidering the Legacy of Mao Zedong***Alden Skillings**

Political Science

*The Sinification of Asia***James Thompson**

Political Science

*China's Infrastructure Development: Too Much of a Good Thing***All Colleges Undergraduate Research Symposium****Poster Presentations, Session B****Friday, April 26****10:50 a.m.–12 p.m.****Memorial Union Building, Granite State Room**

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

Francesca Adams

Health Management and Policy

At-Home Care for Acutely Ill Adults

Adviser: Anne Jamieson

Marie Akiki

Biomedical Science

Localization of the 37a Isoform on Presynaptic N-Type Calcium Channels

Adviser: Arturo Andrade

Sharlene Amador

Biochemistry, Molecular and

Cellular Biology

Colin McGonagle

Biomedical Science

Epidemiology of Staphylococcus Bacteria from Pets and Wild Carnivores in New England

Adviser: Cheryl Marie Andam

Meredith Baker**Hannah Nordstrom**

Psychology

Lauren Flynn

Human Development and Family Studies, Psychology

Unhappy Hour: Testing a Theoretical Model of Gender-Based Violence Prevention among College Students

Adviser: Emily Waterman

Morgan Baumgartner

Biomedical Science

The Student-Athlete Wellness Study: An Analysis of Sleep, Diet Quality, and Perceived Stress as Risk Factors for Injury in Division I Student-Athletes

Adviser: Jesse Morrell

Emily Berry

Genetics

Do RPA-Dependent Epigenetic Modifications Regulate Early Flowering in Arabidopsis thaliana?

Adviser: Kevin Culligan

Aylssa Blodgett

Applied Mathematics

Jameela Francis

Mathematics, Statistics

Thou Shalt Not Pay Retail: A Statistical Analysis of Groupon

Adviser: Michelle Capozzoli

Allison Boldis

Communication Sciences and Disorders

Prosody in Children with Autism

Adviser: Jill Thorson

Riley Boss

Anthropology

Preserving a Lost Village: Ground Truthing Residual Foundations from the Great Flood of 1938 in East Weare, New Hampshire

Adviser: Meghan Howey

Julian Brown

Biomedical Science

Functional Characterization of CACHD1, a Protein Closely Related to the Gabapentinoid Receptor $\alpha 2\delta$

Adviser: Arturo Andrade

Kyana Burgess

Anthropology

Minorities and the Criminal Justice System

Adviser: Amy Michael

Vanessa Cardenas

Biomedical Science

Darian Tilton

Biology

Cell Line Authentication Using Short Sequence Repeats

Adviser: W. Kelley Thomas

Alyson Caruso

Statistics

Tialyn Eakman**McKenzie Finigan**

Nutrition

Evaluating Skin Carotenoid Levels via the Veggie Meter® in College Men and Women

Adviser: Jesse Morrell

Jasmina Cesko

Biomedical Science

Expression and Regulation of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Ovarian Adenocarcinoma (OVCA8) and Human Granulosa Tumor (KGN) Cells

Adviser: Paul Tsang

Laura Clancy

Justice Studies, Sociology

Where Are the 'Coastal Elites': A Quantitative Analysis

Adviser: Catherine Moran

Matthew Cook

Mathematics

The Changing Perception of What Constitutes a Good Catholic

Adviser: Michele Dillon

Isaiah Cornell

Political Science

Income Inequality

Adviser: Dante Scala

Moran Damon

Political Science

Attitudes toward Immigration

Adviser: Dante Scala

Kendall Daprich

Health Management and Policy, Spanish

Examining the Use and Perception of Harm of JUULs by College Students: A Qualitative Study

Adviser: Ann-Marie Matteucci

Ciara Devereaux

Biology

Grace McGrew

Neuroscience and Behavior

Clio Walsh

Philosophy, Psychology

Nicole Westfall

Psychology

Did You See It? How Affective Images Presented outside of Awareness Alter Perception

Adviser: Jolie Wormwood

Grace Dipersio

Biomedical Science

Analysis of Analytes in Human Serum under Conditions of Routine and Delayed Centrifugation

Adviser: Stephanie Clarke

Sarena Dyac

Justice Studies, Neuroscience and Behavior

Alicia Guzman**Jenna Hannafin**

Justice Studies, Psychology

Lead Us Not Into Temptation: The Effect of Religious Behaviors and Moral Reasoning on Drug Usage

Adviser: Ellen Cohn

Allison Easterbrook

Neuroscience and Behavior

Music and Improvisation Brain Activation: A Meta-Analysis and Functional Model

Adviser: Donald Robin

Ryan Gaidos**Russell Marki**

Mechanical Engineering

OpenFoam Baffle Valve CFD Simulation

Adviser: Ivaylo Nedyalkov

Marissa Gast

Biology, Theatre

Influence of Soil Salinity on Plant Community Distribution on Appledore Island, ME

Adviser: Gregg Moore

Oktawia Gielarowicz

Health Management and Policy

Understanding the Health Needs of Older Adults: A Public Health Approach

Adviser: Semra Aytur

Juan Gomez-Rivadeneira

Neuroscience and Behavior
Dissecting Cell-Specific Roles of a2d-Proteins in Seizure-Like Activity of Drosophila melanogaster
 Adviser: Arturo Andrade

Alyssa Greig

Biomedical Science
Assessing Correlates of Farmer Behavior to Prevent Harmful Algal Blooms (HABs): A Multi-Level Analysis
 Adviser: Semra Aytur

Gordon Guilmette

International Affairs, Political Science
Policy over Party Loyalty
 Adviser: Dante Scala

Anna Haber

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

Erik Harrington

Kinesiology
Acute Effects of a Quick Service Meal High in Fat, Sodium and Cholesterol on Arterial Stiffness
 Adviser: Timothy Quinn

Taylor Hennas

Environmental Sciences
Global Meta-Analysis of Nitrogen Cycling Dynamics in Agricultural Soil
 Adviser: Stuart Grandy

Hazuki Horiuchi

Nursing
The Beauty of Childbirth: Learning from the Work of Japanese Midwives
 Adviser: Joanne Samuels

Brooke Howland

Biochemistry, Molecular and Cellular Biology
An Emerging Seafood-Borne Pathogen: Sequence Type 36 Vibrio parahaemolyticus
 Adviser: Cheryl Whistler

Thomas Ireland

Physics
Improving the Calibration for Photometry by Eliminating Dark Frames and Flat Fields
 Adviser: James Ryan

Kayla Kenney

Communication Sciences and Disorders
Diving Deeper into the Specific Relationship between Pragmatic Communication and Executive Functions in Three Individuals with TBI
 Adviser: Kathryn Greenslade

Stacy Kenney

Communication Sciences and Disorders
The Relationship between Verbal Fluency and Connected Language in Probable Alzheimer's Disease
 Adviser: Amy Ramage

Sonthaya Lacy

Neuroscience and Behavior

Danielle Lamontagne

Psychology
Samantha Niven
 Biomedical Science
Can How You Think about Emotions Affect Your Perception of Others' Emotions?
 Adviser: Jolie Wormwood

Hannah Lambert

Political Science
The Effect of Income Class on Political Egalitarianism
 Adviser: Dante Scala

Delana Lane

International Affairs, Political Science
The Meaningful Socioeconomic Impacts of Marijuana Policy Liberalization
 Adviser: Dante Scala

Ashley LeBlanc

Health Management and Policy
Examining E-Cigarette Use and Perceptions of Use of New Hampshire High School and College Students
 Adviser: Ann-Marie Matteucci

Taylor Lindsay

Environmental Sciences
Experiences in International, Multidisciplinary Research for Undergraduate Scientists
 Adviser: Andrew Coppens

Victoria Madore

Neuroscience and Behavior
Investigation of Individual Differences in Demand for Methamphetamine
 Adviser: Sergios Charntikov

Alexis Maillet

Biomedical Science
Comparative Analysis of Sexually Transmitted Diseases and Infections
 Adviser: Mary Lockwood

Heidi Martin

Psychology
I Just Don't Get You: How Low Personal Intelligence Interferes with Communication in Romantic Relationships
 Adviser: John Mayer

Alexander McGinn

Environmental Sciences
Methodology of Quantifying PCB Presence in Electrical Generator Insulating Oil
 Adviser: John Aber

Christian Merheb

Political Science
Exploring Shifts in Presidential Campaign Strategy after Losses in the New Hampshire Primary
 Adviser: Dante Scala

Tara Morong

Neuroscience and Behavior
Individual Differences in Responding to Bupropion or Varenicline in a Preclinical Model of Nicotine Self-Administration Using Female Rats
 Adviser: Sergios Charntikov

Shannon Murdock

Nursing
Spina Bifida and Clean Intermittent Catheterization: A Retrospective Study of Lesion Type and Lesion Location
 Advisers: Bridget Logan, Joanne Samuels

Abigail Palin

Biochemistry, Molecular and Cellular Biology
Comparing the Effects of Serum Starvation on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine and Human Ovarian Granulosa Cells
 Adviser: Paul Tsang

Trey Patno

Biochemistry, Molecular and Cellular Biology

Does Basic Fibroblastic Growth Factor (FGF2) Regulate the Expression of the Angiogenic Inducer (CCN1) in Bovine Luteal Cells?

Adviser: Paul Tsang

Samantha Pepe

Communication Sciences and Disorders
Storytelling Study: A Look at the Impact of Prosody on Visual-Attention and Comprehension Levels for Preschool Aged Children during a Read-Aloud
Adviser: Jill Thorson

Alexander Pimentel

Neuroscience and Behavior
Examining the Effect of Retrograde Neurotoxin in Terminating Cell Projections in the Cortex and Its Impact on Originating Cell Bodies in the Locus Coeruleus
Adviser: Jill McGaughy

Patrick Poulin

Geography
UNH Borelog Project—Campus Planning
Adviser: Shawn Herrick

Marissa Prizio

Biomedical Science
Spay and Neuter Rates at the Cocheco Valley Humane Society over the Past Five Years
Adviser: Sarah Proctor

Marisa Rafal

Human Development and Family Studies
An Analysis of UNH Water Usage: Data Visualization, Management Comparisons, and Reduction Recommendations
Adviser: Cameron Wake

Liam Riehs

Political Science
The Effect Environmental Costs Have on GDP
Adviser: Dante Scala

Caitlin Rosenbaum

Health Management and Policy
MassHealth Medicaid ACO: An Analysis of Social Determinants of Health
Adviser: Semra Aytur

Kara Rzasa

Biochemistry, Molecular and Cellular Biology
*Developing *Galleria mellonella* as an Infection Model for Virulent Mutations in *Vibrio parahaemolyticus**
Adviser: Cheryl Whistler

Walkania Santos Regalado

Biomedical Science
Finding Alternative Ways to Synthesize Precursors for Small Molecule Inhibitors of β -lactamase Enzymes
Advisers: Marc Boudreau, Deisy Pena-Romero

Heidi Simoneau

Environmental Sciences, Justice Studies
Effects of Dams on Water Quality
Adviser: Wilfred Wollheim

Ryan Spelman

Biology
Effect of Plant Cultivar on Efficacy of Biochemical Inducers for Suppression of Plant Diseases
Adviser: Anissa Poleatewich

Laura Tilton

Psychology
Mood during Reading Influences Rate of Personal Connections
Adviser: Caitlin Mills

Avery Van De Water

Neuroscience and Behavior
Dynamic Causal Modeling of the Speech Network in Stroke-Induced Apraxia of Speech
Adviser: Donald Robin

Sean Vigeant

Biomedical Science
*Bioinformatic Analysis of *Staphylococcus pseudintermedius* Genomes, an Important Bacterial Pathogen in Pet Animals*
Adviser: Cheryl Marie Andam

Sarah Wildes

Communication Sciences and Disorders
Positive and Negative Aspects of Youth Football Participation in Relation to Socio-Emotional Wellbeing: A Systematic Review
Advisers: Amy Ramage, Erik Swartz

Yining Zhang

Political Science
A Declining Willingness to Have Children
Adviser: Dante Scala

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

Adviser: Molly Campbell

Emily Benoit

English Literature
Exploring Demographics and Trends in True Crime Content

Elizabeth Buford

Biochemistry, Molecular and Cellular Biology
All You Need to Know about Forensic Science: A Website

Jacob Gabor

English
Giving Undergraduate Students Tips on Their Journey to Law School: A Website

Cassie Haskell

English/Journalism
Why You Should Support Local Business

Sierra Hoes

Biochemistry, Molecular and Cellular Biology
Oral Health and the College Lifestyle: A Website

Samantha Lulka

Business Administration
Guide for LGBT+ Catholics: A Website

Madelyn O'Leary

English
Search Engine Optimization for Small Businesses

Scott Razzetti

Finance
Optimizing the Value of Tuition and Its Allocation: A Website for You and Me

Carly Scata

English Literature
Entering the Workplace after Rehabilitation/Substance Abuse: A Website

Kevin Silk

English

Teaching Young Professionals How to Save Their Money: A Website

Kenley Stevenson

English

Transitioning to a Vegan Diet in College

All Colleges Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 26

12:15–1:25 p.m.

Memorial Union Building

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

MUB, Room 233

Challenges to China's Industrial Sector

Adviser: Lawrence Reardon

Moderators: Katie Clark, Madeleine Rousseau

Neil Cederberg

Political Science

Why Does China Produce Cheap Materials? A Look at China's Steel Industry

Ian Ffrench

Philosophy, Political Science

Why Do Countries Experience Income Inequalities?

Zhenxiang Liu

History

China's Ailing Manufacturing Sector

Yongyao Peng

International Affairs, Political Science

The Grand Strategy: Chinese One Belt One Road Initiative

Yining Zhang

Political Science

The Unbalanced Economic Development in China: A Comparative Analysis of Xinjiang and Shanghai

MUB, Room 302

Chinese Censorship and Human Rights

Adviser: Lawrence Reardon

Moderator: Jake Cianci

Ryan Bowring

Computer Science

Chinese Tech Titans, Censorship, and Civil Society: A Difficult Combination

Christopher Sheikhabdou

Undeclared

Rewriting History: What Causes a Country to Have Strong Media Censorship?

Julius Sullivan

Political Science

Government Censorship in China

Liam Weldon

Political Science

May 35th, 1989, the Day that Never Happened

Reed Williamson

Political Science

Protecting Human Rights Defenders and Activists in China

MUB, Room 336

Conversation Analysis in Communication

Adviser and Moderator:

Edward Reynolds

Adam Bovie

Communication, International Affairs

More Than a Feeling: "I Feel Like" as an Epistemic Hedge

Jordan Fleckenstein

Communication

Laughter as an Action

Tia Floyd

Communication, Ecogastronomy

Gaze and Glancing in a Judged Classroom Situation: A Closer Look into an In-Class Experiment

Brooke Marston

Communication

Evaluation and Emotional Alignment through Response Cries

Matthew Santangelo

Communication

It's Like, a Highlighter

MUB, Room 330

Espionage, Power, and Conflict

Moderator: Ryan Clasby

Tristen Bianco

Political Science

The U.S. Intelligence Community's Response to Chinese Economic Espionage

Adviser: Lawrence Reardon

Kevin Condict

Political Science

China's Raw Material Supplies and Territorial Disputes

Adviser: Lawrence Reardon

Victoria Franks

Justice Studies, Political Science

The Effect of Immigration on Economic Globalization

Adviser: Alynna Lyon

Eric McNeilly

Economics, Political Science

Nationalism, Power and Support: Failing Sanctions

Adviser: Lawrence Reardon

Christian Silva

Political Science

The Lasting Influence of the Shafer Commission Report

Adviser: Mary Malone

Matthew Stebbins

Political Science

How the United States Became a Global Hegemon

Adviser: Lawrence Reardon

MUB, Room 237**Multidisciplinary Session VIII:
Studies in Science and Wellness**

Moderator: Jesse Morrell

Morgan Baumgartner

Biomedical Science

The Student-Athlete Wellness Study: An Analysis of Sleep, Diet Quality, and Perceived Stress as Risk Factors for Injury in Division I Student-Athletes

Adviser: Jesse Morrell

Alana Gudinas

Physics

3D Printing Scintillation Particle Detectors

Adviser: Elena Long

Kara Kelly-Martin

American Sign Language (ASL)/English Interpreting

The Relevance of Repetitive Stress Injuries in American Sign Language-English Interpreters: Deaf, Coda, and Hearing

Adviser: Laurie Shaffer

Michael Moheban

Chemistry

Synthesis of Inorganic N-Heterocyclic Carbene Derivatives for Transition Metal Catalysis

Adviser: Christine Caputo

Sean Vigeant

Biomedical Science

Bioinformatic Analysis of Staphylococcus pseudintermedius Genomes, an Important Bacterial Pathogen in Pet Animals

Adviser: Cheryl Marie Andam

MUB, Room 340**Multidisciplinary Session IX:
Explorations of Gender,
Leadership, Intention,
Corruption**

Moderator: Kristen Butterfield

Charles Carter

Accounting

Jill Durkin

Undeclared

Allison MacPhee

Information Systems and Business Analytics

Brandi McKay

Information Systems and Business Analytics, Management

Benjamin Patt

Finance, Philosophy

Johanna Rewucki

Marketing

Authentic Leadership: What Does Gender Have to Do with It?

Adviser: Betty Woodman

Erin Gaston

Biology

Nightingale's Shadows: The Hidden Women Who Saved Lives during the Crimean War

Adviser: Jan Golinski

Eleonora Giovine

Italian Studies, Psychology

Ross Jones**Sarah Russo**

Psychology

Intent versus Reality: Do Our Intentions Match Our Actions in Sexual Assault Disclosure Cases?

Adviser: Emily Waterman

Benjamin McGrath

Political Science

The Cost of Corruption

Adviser: Alynna Lyon

MUB, Room 338**Multidisciplinary Session X:
Diversity, Multiculturalism, and
Literature**

Moderator: Kate Gaudet

Jack Farrell

English Literature, Philosophy

Seamus Heaney, Robert Frost, and Land

Adviser: Martin McKinsey

Angelique Georges

Sociology

Communicative Adaptations: A Focus on Minorities in Post-Secondary Institutions

Adviser: Catherine Moran

Taylor Lindsay

Environmental Sciences

Experiences in International, Multidisciplinary Research for Undergraduate Scientists

Adviser: Andrew Coppens

Madison Marshall

English

Seamus Heaney's Bog Bodies

Adviser: Martin McKinsey

MUB, Room 203**Technical Methods in Analyzing
a Bioarchaeological Collection**

Adviser and Moderator: Amy Michael

Katherine Dubois

Neuroscience and Behavior

*Strontium (Sr) Isotope Analysis in the Caesarea Maritima Burials***Katherine Dubois**

Neuroscience and Behavior

Lilia Vinkus

Biochemistry, Molecular and Cellular Biology

Visualizing the Past: DNA Analysis and Forensic Facial Approximation of the Caesarea Maritima Burials

Crystina Frieze

Anthropology, Justice Studies
*Burning Up and Breaking Up:
 Understanding Heat-Induced Bone
 Modifications in a Hungarian Bronze
 Age Cemetery*

Victoria Slight

Anthropology
*Reconstruction of Diet from
 Dental Calculus*

Katherine Titus

Anthropology, History
*Examination of Juvenile Remains in the
 Late Chalcolithic Period at Çadır Höyük*

MUB, Room 321

Travel Writing in London: Gaining Skills, Gaining Confidence

Adviser and Moderator: Susan Hertz

Madailein Hart

English/Journalism, Human Development
 and Family Studies
*Finding My Mother on the Streets
 of London*

Meghan Murphy

English/Journalism
Life in My Hands

Julianna Olcott

English Teaching
Navigating Nerves

Adrienne Perron

English/Journalism
Traveling While Vegan

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

Poster Presentations

Friday, April 26

9 a.m.–2:30 p.m.

Paul College

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

Paul College, Great Hall

9–10:30 a.m.

B.S. & B.A. Economics Poster Presentations

Nooran Alhamdan

Economics, Political Science
*The Rentier State: Does Rentierism Hinder
 Democracy?*
 Adviser: Aziz Saglam

Griffin Asbury**Georgio Papakonstantinou**

Economics
William Tessier
 Economics, Finance
*Does Climate Change Have an Adverse
 Effect on the Agricultural Market?*
 Adviser: Reagan Baughman

Peter Brown

Economics
*Economic Impact of the NH Nursing
 Shortage*
 Adviser: Aziz Saglam

Brian Brown

Economics
*Labor Force Participation, Productivity
 and GDP Growth*
 Adviser: Aziz Saglam

Riley Campbell

Economics
*Social Costs of Legalization of Recreational
 Marijuana*
 Adviser: Aziz Saglam

Melinda Chan

Economics
*Import of Manufactured Goods and
 Carbon Emissions per Capita*
 Adviser: Aziz Saglam

Maxwell Coutu**Max Yardumian**

Economics
Eric McNeilly
 Economics, Political Science
*Patents and Intellectual Property Rights
 Effects on Innovation*
 Adviser: Reagan Baughman

Catherine Craig

Economics
*How Well Do Wages Follow Productivity
 Growth?*
 Adviser: Aziz Saglam

Elizabeth Cunningham

Economics
*Gross Domestic Product and Gross
 National Happiness*
 Adviser: Aziz Saglam

Qinyuan Ding**Dylan Rose****Timothy Whitehead**

Economics
*Immigration Effect on Wages/Employment
 of Native Workers in the U.S.*
 Adviser: Reagan Baughman

Madeleine Ejdys

Economics, Music
Does Welfare Make Unemployment Worse?
 Adviser: Aziz Saglam

Rowan Ferrier

Economics, Political Science
Oil: Blessing or Curse?
 Adviser: Aziz Saglam

Alexis Gray

Economics
The Determinants of Student College Debt
 Adviser: Aziz Saglam

Paul Haley

Economics

Do Higher Taxes Reduce Smoking?

Adviser: Aziz Saglam

Zachary Hansler**Bowen Luo****Jon Sakelaris**

Economics

*Effect of the North American Free Trade**Agreement on the U.S. GDP*

Adviser: Reagan Baughman

Xiangshu Hao

Economics

Tax Reform and Economic Growth

Adviser: Aziz Saglam

Troy Hartmann**Ramsey King****Anuj Patel****Devon Sprague**

Economics

*The Primary Causes of the Greek**Economic Crisis*

Adviser: Reagan Baughman

Megan Hartnett

Economics, History

Psycho-Pharmaceuticals and Crime Trends

Adviser: Aziz Saglam

Duncan Holland

Economics

*Analysis of the Factors Influencing**Household Consumption*

Adviser: Aziz Saglam

Tyler Hoyle

Economics, International Affairs

Connor Smith**Wonjune Song**

Economics

The Effects of Cigarette Taxes on Smoking

Adviser: Reagan Baughman

Scott Jakubowicz**Michael Retrum**

Economics, Finance

Adam McIlveen

Economics

Determinants of Variation in Stock Prices

Adviser: Reagan Baughman

Charles Lehoux**David MacDonald****Yi Wu**

Economics

The Effects of Education Level on Wage

Adviser: Reagan Baughman

Thomas Maguire**Jordan Sock****Gia Tuccinardi**

Economics

*Key Determinants of Rising Health**Care Cost in the U.S.*

Adviser: Reagan Baughman

Logan Malone

Economics

Walkability and Property Values

Adviser: Aziz Saglam

Madeline Maurer

Economics

The Economics of College Football

Adviser: Aziz Saglam

Riley McAlpine**Sarah Nadeau****Alexandra Work**

Economics

Dominant Causes of Income Inequality in the United States

Adviser: Reagan Baughman

Elizabeth O'Malley

Economics, International Affairs

*On the Relationship between Foreign**Direct Investment and Urbanization*

Adviser: Aziz Saglam

Ivona Pesa

Economics

Crime and the Business Cycle

Adviser: Aziz Saglam

Daniel Pineau

Economics

*The Economic Effects of the**Marijuana Industry*

Adviser: Aziz Saglam

Connor Stahl

Economics

Capitalism vs. Socialism: Taxation and Education

Adviser: Aziz Saglam

Paul College, Room G45**9–10:30 a.m.****EcoGastronomy Poster Presentations****Richelle Barone**

Ecogastronomy, Human Development and Family Studies

Isabella Falco

Ecogastronomy, Nutrition

*Trust Your Gut: An Educational Program**Highlighting the Importance of the Gut Microbiome*

Adviser: Daniel Winans

Carina Berglund

Nutrition

*The Nutritional Impact of Meals 4 Kids**on Participating Families in the New**Hampshire Seacoast*

Adviser: Daniel Winans

Melissa Brennan**Aimee Carignan**

Ecogastronomy, Nutrition

*Dover Schools: Bringing Nutrition and**Sustainability Awareness to the District*

Adviser: Daniel Winans

Jessica Dodge

Ecogastronomy, Hospitality Management

Melissa Ferris

Ecogastronomy, Nutrition

*Birch Hill Cafe: Business Proposal for a**Sustainable Cafe and Education Hub*

Advisers: El-Hachemi Aliouche,

Daniel Winans

Matthew Doherty

Ecogastronomy, Sustainable Agriculture and Food Systems

*Farm to You: Hands-On Education That**Feeds the Campus Community*

Advisers: Andrew Ogden, Daniel Winans

Tia Floyd

Communication, Ecogastronomy

*Behind the Seeds at The Farm: Cultivating**Sustainable Young Minds through**Experiential Learning*

Adviser: Daniel Winans

Hannah Milstein

Economics

*Growing Grains: Increasing Grain**Production in the Seacoast*

Adviser: Daniel Winans

Jenifer Nugent

Ecogastronomy, Sustainable Agriculture
and Food Systems

Kristin Wiewel

Ecogastronomy, Sociology

*Let's Veg Out: Implementing Hydroponics
in Urban School Systems*

Adviser: Daniel Winans

Ruth Smith

Ecogastronomy, Hospitality Management

*Growing Wise about Wines: A Wine
Education Class about Californian and
French Wines*

Adviser: Daniel Winans

Liam Waldron

Ecogastronomy, Sustainable Agriculture
and Food Systems

*Past, Present, Future: The Impacts
of Climate Change on Viticulture in
California*

Advisers: Daniel Remar, Daniel Winans

Nicole Williamson

Ecogastronomy, Environmental Sciences

*Increasing Farm Sustainability: Designing
a Biofilter to Manage Compost Gas
Exhaust*

Advisers: John Aber, Daniel Winans

Paul College, Great Hall

11 a.m.–12:30 p.m.

Economics 676 Poster**Presentations**

Adviser: James Wible

Cole Bartlett

Economics, Sustainability

*Boston Red Sox: The Economic Strategies
for Success*

Nicholas Brown

Economics

*The Economics of the Patriots Roster
Salary Structure*

Joseph Carroll

Economics

*Labor/Salaries of the Golden State
Warriors*

Mario DeBueriis

Economics

*Economic Analysis of the New York
Rangers Franchise*

Charles Driscoll

Information Systems and Business
Analytics

*Economic Analysis of the Vegas Golden
Knights Roster*

Richard Ellison

Finance

*Economics and Financing of the Los
Angeles Stadium at Hollywood Park*

Felix Guerette

Finance

*Cost/Benefit Analysis of the Golden State
Warriors New Arena*

Connor Holman

Economics

Arsenal Gunners Labor Economics

Jefferson Horn

Finance

Los Angeles Lakers Labor Market

Scott Jakubowicz

Economics, Finance

MLB Salary Trends behind the Numbers

Trevor Lacey

Information Systems and Business
Analytics

Economic Analysis of the Utah Jazz's Labor

Matthew Lambert

Finance

*An Economic Analysis of the Toronto
Maple Leafs Salary Structure*

Christine Lee

Finance

*An Economic Analysis of Labor Markets
and the Boston Red Sox*

Evan MacHenry

Finance

*An In-Depth Look at the Public Financing
behind the Detroit Red Wings NHL Franchise*

Samuel Nielsen

Finance

The Returns to Skill for PGA Tour Golfers

Jack Niles

Information Systems and
Business Analytics

Atlanta United Firm Organization Analysis

Joseph Pierro

Economics, Finance

Economics of the Las Vegas Golden Knights

Richard Planchet

Economics

The Economical Analysis of T-Mobile Arena

Keegan Porter

Finance

*The Public Finance of the New
England Patriots*

Shane Quimby

Finance

Dallas Cowboys Facility, AT&T Stadium

Christian Reardon

Economics

*The Economics of the Chicago
Blackhawks Franchise*

Douglas Rose

Information Systems and

Business Analytics

Labor Analysis of the LA Raiders

Nathan Rumford

Finance, Management

*Economic Analysis of the Boston
Bruins Franchise*

Ethan Vient

Economics

*How Danny Ainge Avoided the Cycle of
Tanking within the NBA*

Tanner Wheeler

Finance, Management

*An Economic Analysis of the Green Bay
Packers Franchise*

**Paul College, Rooms G35 and G45
11 a.m.–12:30 p.m.**

**Information Systems and
Business Analytics Poster
Presentations**

Jake Adams

Linwei Shao

Information Systems and
Business Analytics

Ryan Anastasi

Information Systems and
Business Analytics, Management

Benjamin Pollack

Information Systems and Business
Analytics, Marketing

Erika Zadravec

Information Systems and
Business Analytics, Marketing
*Data Analysis for the Portsmouth Music
and Arts Center*
Adviser: Russell Miles

Jeffrey Anderson

Information Systems and Business
Analytics, International Business
and Economics

Alec Bedard

Accounting, Information Systems and
Business Analytics

Courtney Bondanza

Finance, Information Systems and
Business Analytics

Megan Van Bourgondien

Information Systems and Business
Analytics, Marketing
Proulx Oil and Propane
Adviser: Russell Miles

Sean Andreasson

Jared Boulanger

Finance, Information Systems and
Business Analytics

Alexander Bice

Andrew Kelly

Information Systems and
Business Analytics, Marketing

Jake Gilbert

Information Systems and
Business Analytics
*DS 775 Corporate Project Experience:
New Balance*
Adviser: Peter Zaimas

Cameron Armand

Jared Farley

Paige Gibson

Steven Saucier

Information Systems and Business
Analytics

Kameron Hall

Finance, Information Systems and
Business Analytics
Hitchiner Manufacturing Co.
Adviser: Kholekile Gwebu

Kathleen Bennett

Walter Collier

Kevin Gilcrest

Gerasimos Mouikis

Information Systems and
Business Analytics

Stephen Panella

Finance, Information Systems and
Business Analytics
Lindt Corporate Project—ISBA Capstone
Adviser: Russell Miles

Gage Benson

Zachary Foster

Ryan Ho

John Milne

Jack Russo

Finance, Information Systems
and Business Analytics
UNH Lacrosse Analytics
Adviser: Peter Zaimas

Clayton Bentley

Information Systems and
Business Analytics, Sustainability

William Bernard

Jacob Mannix

Information Systems and
Business Analytics

Danielle Doolin

Finance, Information Systems
and Business Analytics
UNH Paul College—Academics Programs
Adviser: Russell Miles

Stephen Bouzianis

Rona Hope-Murray

Jacob Maggy

Katelynn Scannell

Information Systems and
Business Analytics

Ling Hu

Finance, Information Systems
and Business Analytics
Kingswood Leasing
Adviser: Peter Zaimas

Bryce Brown

Business Administration

Mark Coleman

Joseph LaRocca

Information Systems and
Business Analytics

Brian Deshaies

Finance, Information Systems
and Business Analytics

Mary McLamb

Chemical Engineering, Information
Systems and Business Analytics
Timberland
Adviser: Peter Zaimas

James Busi

Ardalan Mahdavi

Information Systems and
Business Analytics

Keanan McGonigle

Andrew Wetmore

Finance, Information Systems and
Business Analytics

Steven Zuidema

Accounting, Information Systems
and Business Analytics
S.G. Torrice Company
Adviser: Russell Miles

Zachary Curran

Ashley Fopiano

Finance, Information Systems and
Business Analytics

Paula Grossi

Information Systems and
Business Analytics

Nikkilette Salley

Information Systems and
Business Analytics, Management

Hody Wong

Information Systems and Business
Analytics, International Business
and Economics
Dunstan Pediatric Services
Adviser: Kholekile Gwebu

Mason Currie

Information Systems and
Business Analytics

Dung Tri Dinh

Accounting, Information
Systems and Business Analytics

Valerie Ehrich**Michael Ghamo**

Finance, Information Systems and
Business Analytics

Michael Kaichen

Business Administration, Information
Systems and Business Analytics,
Management

City of Rochester Project

Adviser: Russell Miles

Chace Dearborn

Finance, Information Systems and
Business Analytics

James Dogil**Zoe Kaufman****Bryce Schultz**

Information Systems and
Business Analytics

Kyle Mercier

Information Systems and
Business Analytics, Marketing

Town of Rye

Adviser: Peter Zaimas

Lauren Donahue**Hui Gao**

Accounting, Information Systems
and Business Analytics

Christian Exton**Hans Massie**

Information Systems and
Business Analytics

Philip Hansen

Finance, Information Systems
and Business Analytics

Red River Computer Co. Inc.

Adviser: Kholekile Gwebu

Jeffrey Eisenbeis**Noah Robison****William Ulrich**

Information Systems and
Business Analytics

Natalie Mahoney

Finance, Information Systems
and Business Analytics

Julia Perna

Information Systems and
Business Analytics, Marketing
*DS 775 Paul College Office of
Communications*

Adviser: Kholekile Gwebu

Zachary Fay

Business Administration

Ryan O'Keeffe

Finance, Information Systems and
Business Analytics

Amanda Parnigoni

Information Systems and Business
Analytics, Management

Jocelyn Petry

Accounting, Information Systems
and Business Analytics

Emily Rich

Information Systems and
Business Analytics

DermSpectra Group

Adviser: Kholekile Gwebu

Sebastian Gonin

Finance, Information Systems and
Business Analytics

Zefeng Jin**Laura Moran****Emma Walsh****Cenrara Widi**

Information Systems and
Business Analytics
*New Hampshire Small Business
Development Center*

Adviser: Peter Zaimas

Wenting Huang

Business Administration

Sardar Adam Saeed Khan**John Morency****Kevin Sloane**

Finance, Information Systems and
Business Analytics

Michael Murphy

Information Systems and
Business Analytics

White Birch Armory

Adviser: Russell Miles

Trevor Lacey**Jessica Lavallee****Jack Niles****Douglas Rose****Nicholas Ware**

Information Systems and
Business Analytics

UNH Campus Recreation

Certification Database

Adviser: Kholekile Gwebu

Madeline May**Jenna Owens****Spencer Pope****Luc Ravenelle**

Information Systems and Business
Analytics

Timothy Putnam

Information Systems and
Business Analytics, Sustainability
*Liberty Mutual Corporate Project
Experience*

Adviser: Kholekile Gwebu

Kasey Noffsinger**Krysten Provencal**

Information Systems and Business
Analytics, Marketing

Cassandra Putsch**Kellie Sovak**

Information Systems and
Business Analytics

Benjamin Tully

Finance, Information Systems and
Business Analytics

Seaside Dreams

Adviser: Peter Zaimas

**Paul College, Rooms G35, G45 and
Great Hall
1–2:30 p.m.**

***Multidisciplinary/Honors Thesis
Poster Presentations***

Sean Andreasson

Finance, Information Systems and
Business Analytics

*Uncertainty across the Pond: An
Evaluation of Capital Market Volatility
and Currency Fluctuations in Reaction to
Key Brexit Events*

Adviser: Stephen Ciccone

Win Phyu Phyu Aung

Entrepreneurial Studies, Marketing
*Challenges International Students Faced
 and Their Perceived Values on UNH*
 Adviser: Lin Guo

Stephen Bouzianis

Information Systems and
 Business Analytics
*Predicting the Outcome of NFL Games
 Using Logistic Regression*
 Adviser: Ali Hojjat

Douglas Boyle

Finance
*The CEO Effect on the Corporate
 Diversification Strategy*
 Adviser: Viktoriya Staneva

Lauren Britt

Finance, Management

Andrea LaBonte

Management

Amanda Parnigoni

Information Systems and Business
 Analytics, Management
Ethics Framing
 Adviser: Jennifer Griffith

Lauren Britt

Finance, Management

Andrea LaBonte

Management

Amanda Parnigoni

Information Systems and Business
 Analytics, Management
*Minding the (\$800,000) Gap: Accounting
 for the Gender-Driven Gap in Executive
 Severance Agreements*
 Advisers: Jennifer Griffith, Stephan Shipe

Lauren Britt

Finance, Management

Andrea LaBonte

Management

Amanda Parnigoni

Information Systems and Business
 Analytics, Management
Political Identity and Judgement
 Adviser: Jennifer Griffith

Eric Brogioli

Accounting, Finance
*Disclosure Levels in the Construction
 Industry and Their Effect on Stock Price*
 Adviser: Catherine Plante

Peter Brown

Economics
*A Tragedy of the Commons
 Dilemma: Fishing*
 Adviser: John Tommasi

Bryce Brown

Business Administration
*March Madness Bracket Prediction:
 Who Will Be the Next College Basketball
 Champion?*
 Adviser: Ali Hojjat

Clinton Cabral

Accounting
*The Effects of Mood and Awareness on
 Auditors' Judgmental Decision Making*
 Adviser: Jonathan Nash

Madeline Clapp

Hospitality Management
*Finding a Balance between Revenue
 Management Practices and Consumer
 Perceptions*
 Adviser: El-Hachemi Aliouche

Sedona Clothier

Accounting, Management
*Relationships between Corporate
 Inversions and the Tax Cuts & Jobs Act*
 Adviser: John Hasseldine

Gianna Demetroulakos

Finance
What Makes a Good CEO?
 Adviser: Caitlin DeSoye

Brian Dezurick

Economics
*The Impact of Minimum Wages on
 High School Completion Rates*
 Adviser: Reagan Baughman

Alexis Gray

Economics
*Brands Take a Stand for Good:
 The Effect of Brand Activism on Social
 Media Engagement*
 Adviser: Moein Khanlari

Emily Grone

Management
*Airports: A Study of Technology
 Integration*
 Adviser: Andrew Earle

Kameron Hall

Finance, Information Systems and
 Business Analytics
*Evaluating the Impact of Qualitative
 Factors on Mergers & Acquisitions Success*
 Adviser: Robert Gough

Andrew Hultgren

Accounting, Finance
Tax Identity Fraud
 Adviser: John Hasseldine

Sardar Adam Saeed Khan

Finance, Information Systems and
 Business Analytics
International Portfolio Optimization
 Adviser: Mihail Miletkov

Jason Korbani

Accounting, Finance
*The Association between Accountability
 Measures and Perceptions of Ethics*
 Adviser: Linda Ragland

Wenbin Liu

Marketing
The Facts behind GMO Food
 Adviser: Shuili Du

Matthew LoStocco

Business Administration, Entrepreneurial
 Studies, Finance
*Data Disparity: Using Tiered Pricing as
 an Alternative to Consumer IoT Data
 Privacy Regulations*
 Adviser: Jeffrey Sohl

Samantha Lulka

Business Administration
*Measuring Financial Success of American
 Symphony Orchestras*
 Adviser: Linda Ragland

Michael McCarthy

Finance, International Business
 and Economics
*The Impact of Tariffs on Equity
 Markets in 2018*
 Adviser: Stephen Ciccone

Devin McMahon

Marketing
*Targeted Digital Advertising: An Effective
 Approach for Engaging Consumers?*
 Adviser: Billur Akdeniz Talay

Hannah Milstein

Economics

The Effects of Reducing Federally Subsidized Crop Insurance

Adviser: Reagan Baughman

Brendan Mooney

Business Administration

Effects of Institutions of Economic Recovery after a Natural Disaster

Adviser: Bruce Elmslie

Christopher Murphy

Management

Reasons and Effects of Switching College Majors

Adviser: Michael Swack

Mai Thanh Nguyen

Accounting, Finance

For-Profit and Non-Profit Visiting Nurse Associations

Adviser: Catherine Plante

Elizabeth O'Malley

Economics, International Affairs

The Effect of Foreign Aid Delivery Methods on Income

Adviser: Yin Germaschewski

Stephen Panella

Finance, Information Systems and Business Analytics

Models for Predicting NFL Game Outcomes

Adviser: Tevfik Aktekin

Anna Peaslee

Accounting, Management

The Impact of Gender in Top Management and Corporate Governance on the Likelihood of an Auditor Issuing a Going-Concern Opinion

Adviser: Jonathan Nash

Hien Phan

Accounting, Finance

New Revenue Recognition Standard and Its Impact on Book-Tax Difference: Change in Earnings Quality?

Adviser: Le Xu

Spencer Pope

Information Systems and Business Analytics

Upselling the Existing Subscribers of a Loyalty Program

Adviser: Inchan Kim

Jemina Shepherd

Economics

Skill Biased Technological Change as a Major Cause of Increasing Income Inequality

Adviser: Reagan Baughman

Kristina Sidiropoulos

Finance, Management

Real Estate in Developing Areas: Trends and Identifiers of a Money-Making Location

Adviser: Caitlin DeSoye

Allison Simone

Accounting, Finance

Financial Restatements within the Big 4 Accounting Firms

Adviser: Le Xu

James Smugereski

Finance

Reading between the Lines: CEO Temperament Measured by Textual Analysis and Firm Policy

Adviser: Huimin Li

Thi Ngoc Diep Tran

Management

Employee Volunteer Program in the Eye of College Students

Adviser: Anthony Pescosolido

Schuyler Vaillancourt

Economics, International Affairs

The Effects of Tariffs on the U.S. Economy

Adviser: Aziz Saglam

Alexandra Work

Economics

Examining University Sorority and Fraternities as Pyramid Schemes

Adviser: Marc Herold

Spencer Young

Accounting, Finance

Understanding Tax Havens

Adviser: John Hasseldine

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

Oral Presentations

Friday, April 26**11:10 a.m.–3:30 p.m.****Paul College**

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

Paul College, Rooms G85, 135, 165, 175**11:10 a.m.–12:30 p.m.**

Marketing Workshop Oral Presentations

Adviser: Peter Masucci

Kathryn Aiken**Casey Cardon****Yanni Latzanakis**

Marketing

Paula Camara de la Fuente

International Business and Economics, Marketing

Christopher Doyle**Katelin Fischer****Dalton Litzelman****William Logan**

Management, Marketing

Emily Grone

Management

Grace Moleski**Sydney Rousseau**

Finance, Marketing

Research and Development of Marketing Programs to Increase Awareness of, and Visits to the City of Keene, NH

Fouad Al-Matrouk

Entrepreneurial Studies, Marketing

Alexander Bice**Megan Van Bourgondien**

Information Systems and Business

Analytics, Marketing

Matthew Hooker**Sarah Newcomb****Ashley Valliere**

Management, Marketing

Yuting Hou**Arsalan Khan****Grace Lynn**

Marketing

Taylor Livingston

Communication, Marketing

*Research and Develop Marketing Programs**to Increase Awareness of, and Attendance**at Shows by a Younger Audience at the**Ogunquit Playhouse in Ogunquit, Maine***Kyle Andersen****Sean Davis****Sara Khan****Kaitlin Warren**

Marketing

Rebecca Bailey**Stephen Twitchell**

Entrepreneurial Studies, Marketing

*Research, Design, and Develop Marketing**Programs for Twine, a Savings Program for**Two People to Share, from John Hancock of**Boston, Massachusetts***Joshua Andonian****Eliza Filipancic****Melissa Schwartz****Collin Streeter****Maddison Walsh**

Marketing

Max Halper

Finance, Marketing

Daniel Patrazza

Management, Marketing

*Design and Develop Marketing Programs**to Enhance and Expand the L.L.Bean**Ambassador Program***Win Phyu Phyu Aung**

Entrepreneurial Studies, Marketing

Jeffrey Correia

Finance, Marketing

Kaylee Dalton**Matthew Haley****Wenbin Liu****Alana Maher**

Marketing

Julia Perna

Information Systems and Business

Analytics, Marketing

Katelynn Scannell

Information Systems and

Business Analytics

*Design and Develop Marketing Programs**to Increase Awareness of, and Adoptions of**Cats at Cat Tales Rescue in Seabrook, NH***Olivia Bachry****Christopher Lord****Colin Morrissey****Tyler Provost****Shamus White**

Marketing

Maggie Davis

Management, Marketing

Benjamin Pollack

Information Systems and Business

Analytics, Marketing

*Design and Develop Marketing Programs**to Expand Awareness of, and Visits by**Families with Children to the Albacore**Submarine Museum in Portsmouth, NH***Shane Bartlett****Molly Benz****Charles White**

Entrepreneurial Studies, Marketing

Sabrina Jowers**Molly McAndrews****Nicholas Watson**

Marketing

*Design and Develop a Marketing Plan for**the Theatre for Life Program Offered by the**NH Theatre Project in Portsmouth, NH***Francesca Bellinghieri****Ashley Cunningham****Giana Romano**

Marketing

Marie-Jo Pelletier**Nicholas Snedegar**

Management, Marketing

Mikayla Terenzoni

Hospitality Management, Marketing

*Research and Design Marketing**Programs to Help Grow Business for**360 Intel, a Manchester, NH, Mystery**Shopper Company***Nicholas Bevilacqua****Sierra Migneault****Tyler Moriarty****Jonathan Olsen****Amanda Villanti**

Marketing

Brenna McGill

Management, Marketing

*Research and Develop Marketing Programs**to Increase Awareness of, and Booking for**Weddings at the Boston Seaport Hotel and**World Trade Center***Charles Bossi****Ryan Carrigan****Amanda Flaherty****Adrianna Lamparelli****Samantha Zizza**

Marketing

Cameron Dixon

Entrepreneurial Studies, Marketing

Sarah Mahoney

Management, Marketing

*Research and Development of Marketing**Activities to Expand Awareness of, and**Increase Participation in a Variety of UNH**Campus Recreation Programs***Brooke Botticelli****Harrison Clark****Lauren Gross****Maxwell Paroda**

Marketing

James Cranford

Finance, Marketing

Daria Gazizova

Art: Studio Art, Marketing

Davis Potter

Marketing

*Research, Design, and Develop Marketing**Programs to Increase Retail Store Traffic**for L.L.Bean of Freeport, Maine*

Matthew Boudreau

Alexis Bourbeau

Nathanial Dexter

Ziwei Lyu

Sarah Morgan

Marketing

Christopher Morales-Galindo

Finance, Marketing

Research, Design, and Develop Marketing Programs to Increase Awareness of, and Sales of Products for RAWZ Pet Foods, a Not-for-Profit Business in York, Maine

Antonio Bruni

Entrepreneurial Studies, Marketing

Kelsey Collins

Finance, Marketing

Katelyn Frechette

Emile Steven

Management, Marketing

Christina Montanile

International Business and

Economics, Marketing

Matthew Sherlock

Marketing

Design and Develop Marketing Programs to Increase Awareness of, and Participation in COIN, a New John Hancock Platform That Targets an Individual's Investments to Areas They Care Most About

Elizabeth Carne

Finance, Marketing

Benjamin Doucette

Tyler Martel

Taylor McAnney

Marketing

Kelsey Koloski

Riley Stone

Management, Marketing

Research and Develop Marketing Programs to Increase Awareness of, and Purchases of the Direct-to-Consumer, John Hancock Vitality Life Insurance Product

Julia Cassidy

James Curley

Kristen McCoy

Isabella Monziona

Carly Szymanski

Marketing

Jonathan Duffy

Entrepreneurial Studies, Marketing

Zihe Li

Finance, Marketing

Research, Design, and Development of Marketing Programs Aimed at Increasing Visibility of, and Participation in Community Programs at the First Congregational Church in Farmington, NH

Elise Chandler

Hospitality Management, Marketing

Rebecca Dubovsky

Thomas Sievwright

Courtney Sullivan

Marketing

Alexa Markman

Management, Marketing

Erika Zadravec

Information Systems and Business

Analytics, Marketing

Research and Develop Marketing Programs to Increase Awareness of, and Enrollment in the Outdoor Education Major at the College of Heath and Human Services at UNH

Madison Chouinard

Marketing, International Business

Megan Howe

Management, Marketing

Matthew Lavoie

Austin Quinlan

Paul Vicino

Marketing

Kyle Mercier

Krysten Provencal

Information Systems and Business

Analytics, Marketing

Research, Design and Develop Social Media Enhancements for the Boston Seaport Hotel and World Trade Center

Matthew Costigan

Marketing

Jonah Foulks

Marketing, History

Stephanie Hebert

International Business and

Economics, Marketing

Arseniy Shapovalov

International Affairs, Marketing

Emili Sherkanowski

Brittney Wallace

Management, Marketing

Research, Design, and Develop Marketing Programs to Enhance the Corporate Brand Image for John Hancock Insurance Company of Boston, Massachusetts

Connor Cote

Kinesiology, Marketing

Olivia Estes

Stephanie Gorman

Emma Loschiavo

Steven Powers

Marketing

Jenna Owens

Information Systems and

Business Analytics

Christine Tarantino

Management, Marketing

Austin Timpone

International Business and

Economics, Marketing

Research, Design, and Develop Marketing Programs to Increase Awareness, and Participation in the UNH Global Study Abroad Program

Kevin Annis

Computer Engineering, Electrical
Engineering Technology

Samuel Broadwater

Mechanical Engineering Technology
3D Printed Models from Microscopy Images
Advisers: Shawn Banker, Nancy Cherim,
Christopher LeBlanc, Theodore Tavares,
Mark Townley

Matthew Fintonis

Electrical Engineering Technology
*Build Your Own Project—An Internal Tool
for Sales*
Adviser: Christopher LeBlanc

Devon Greer

Mechanical Engineering
*Redesign of an Existing Laminate
Unwinder*
Adviser: Theodore Tavares

Demetrious Hoggard

Mechanical Engineering Technology
Circuit Card Fixture
Adviser: Theodore Tavares

Philip Kocsis

Electrical Engineering
Assisted Guitar PX
Adviser: Christopher LeBlanc

Durga Koirala

Electrical Engineering Technology
Variable Camera Trigger Box
Advisers: Craig Hossfeld,
Craig Waddington

Ryan Lamont

Mechanical Engineering Technology
*Design of External Mounting Rig for
Ink Reservoirs*
Adviser: Theodore Tavares

Timothy McDaniel

Mechanical Engineering Technology
*Design of the Manufacturing Process for
Large Flanged Immersion Heaters*
Adviser: Theodore Tavares

Walters Ndi

Mechanical Engineering Technology
*Investigating Additive Manufacturing in
Ductile Materials*
Adviser: Theodore Tavares

Rachel Sedlacek

Electrical Engineering Technology
*990051 Test IC Layout for ADC Silicon
Performance Characterization*
Adviser: Christopher LeBlanc

Chad Toulouse

Mechanical Engineering Technology
Sliding Guitar Pickup
Adviser: Robert Arredondo

The Naked Arts— Creativity Exposed

Act III

Friday, April 26

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.

Jason Ducharme

English, History
Come Forth in Thaw
Adviser: Thomas Payne

Justin Palma

Theatre
*Capstone Project: Lighting Design for
If/Then*
Adviser: Lih-Hwa Yu

Honors English Undergraduate Research Conference

Friday, April 26

1–3:30 p.m.

Hamilton Smith Hall, Room 205

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

Mikayla Mallett

English
*The Absence of Parental Guidance in
Eighteenth Century Literature*
Adviser: Sean Moore

Emily McPherson

English
*The Representation of African
Americans in Film*
Adviser: Delia Konzett

Joseph Pirone

English
*The Influence of Classicism in J. Hector
St. John de Crèvecoeur's "Letters from an
American Farmer"*
Adviser: Brigitte Bailey

Chiara Vercellone

English/Journalism
*The Relationship between Citizen
Journalism and Professional Journalism in
the 21st Century*
Adviser: Lisa Miller

Elizabeth Walsh

English, History
Deep Gash
Adviser: Thomas Payne

Alycia Wilson

English/Journalism

The Ethics of Identifiers and Causal Relations in Journalism

Adviser: Lisa Miller

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

Friday, April 26**1–4 p.m.****Pettee Hall, Rooms 106, 114, and G02**

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.

Victoria Bandera

Kinesiology

Functional Demand and Maximal Strength in Older Female Cancer Survivors Who Have Completed Cancer Treatment

Adviser: Dain LaRoche

Allison Boldis

Communication Sciences and Disorders

Prosody in Children with Autism

Adviser: Jill Thorson

Shannon Bryant

Communication Sciences and Disorders

*Language Performance in**Parkinson's Disease*

Adviser: Amy Ramage

John Domenico

Nursing

The Relationships of College Students and How They Discuss This with Their Healthcare Provider

Advisers: Alyssa O'Brien, Joanne Samuels

Francis Gesel

Kinesiology

Effects of Acute Static and Ballistic Stretching on Muscle-Tendon Unit Stiffness, Work Absorption, Strength, Power, and Countermovement Vertical Jump Performance

Adviser: Dain LaRoche

Hazuki Horiuchi

Nursing

The Beauty of Childbirth: Learning from the Work of Japanese Midwives

Adviser: Joanne Samuels

Kayla Kenney

Communication Sciences and Disorders

Diving Deeper into the Specific Relationship between Pragmatic Communication and Executive Functions in Three Individuals with TBI

Adviser: Kathryn Greenslade

Stacy Kenney

Communication Sciences and Disorders

The Relationship between Verbal Fluency and Connected Language in Probable Alzheimer's Disease

Adviser: Amy Ramage

Jessica Lee

Communication Sciences and Disorders

Semantic Network Resting State Connectivity in Healthy Controls and Stroke Victims

Adviser: Amy Ramage

Taela Leek

Nursing

Evidenced Based Practice in NH Hospitals: Therapeutic Hypothermia

Advisers: Elizabeth Evans, Joanne Samuels

Jennika Mannesto

Human Development and Family Studies

Stress and Mood as Predictors of Maternal Caregiving in the Preschool Period

Adviser: Jill Sherman

Claire Martindale

Nursing

For Low-Risk Women in the Seacoast of New Hampshire, How Does Geographical Location, Culture and Socioeconomic Status Predict the Availability of Different Birthplaces and/or Providers?

Adviser: Joanne Samuels

Emily Morenz

Kinesiology

Effects of Acute Static and Ballistic Stretching on Countermovement Vertical Jump Performance

Adviser: Dain LaRoche

Shannon Murdock

Nursing

Spina Bifida and Clean Intermittent Catheterization: A Retrospective Study of Lesion Type and Lesion Location

Advisers: Bridget Logan, Joanne Samuels

Samantha Pepe

Communication Sciences and Disorders

Storytelling Study: A Look at the Impact of Prosody on Visual-Attention and Comprehension Levels for Preschool Aged Children During a Read-Aloud

Adviser: Jill Thorson

Kimberly Reilly

Occupational Therapy

When They're in My Arms: An Evaluation of Occupational Risk Factors among Childcare Professionals

Adviser: Vidyalakshmi Sundar

Sarah Wildes

Communication Sciences and Disorders

Positive and Negative Aspects of Youth Football Participation in Relation to Socio-Emotional Wellbeing: A Systematic Review

Advisers: Amy Ramage, Erik Swartz

Teigue Young

Kinesiology

Measurements of Muscle Thickness by Ultrasound Imaging Following Blood Flow Restricted Exercise

Adviser: Summer Cook

Psychology Department George M. Haslerud Undergraduate Research Conference

**Friday, April 26
1–5 p.m.**

McConnell Hall, Room 220

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

Amanda Bagnardi

Neuroscience and Behavior

The Neural Correlates of Frustration

Adviser: Caitlin Mills

Spencer Bardwell

Psychology

How Much Support Do You Seek? Parental Predictors of Emotional Reliance in Differing Ages of Adolescents

Adviser: Ellen Cohn

Jessica Brown

Neuroscience and Behavior

Examination of the Role of Alpha

Oscillations and Attention in the

Modulation of Episodic Memory by Value

Adviser: Robert Ross

Colleen Donovan

Nutrition, Psychology

The Effects of Calorie Restriction on the

Development of Anxiety in Female Rodents

Adviser: Robert Drugan

Kelly Jacques

Psychology

Discrimination Hindering Perceptions

of Equality: Can Second Generation

Immigrants Confidently Pursue the

American Dream of Higher Education?

Adviser: Ellen Cohn

Chloe Pilgrim

Neuroscience and Behavior, Psychology

Differential Effects of Acute vs. Chronic Stress on Serotonin and Corticosterone in Female Rats

Adviser: Robert Drugan

Audrey Tocco

Neuroscience and Behavior

Examination of Attention and Retention for Different Types of Religious Concepts

Adviser: Robert Ross

Nicole Westfall

Psychology

Behavioral Scoring

Adviser: Robert Drugan

COLSA Undergraduate Research Conference

Oral Presentations

Saturday, April 27

7:45–10:30 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

Colin McGonagle

Biomedical Science

Epidemiology of Staphylococcus

Bacteria from Pets and Wild Carnivores

in New England

Adviser: Cheryl Marie Andam

Kathryn Bennett

Environmental Sciences, Sustainability

Using Stable Isotope Analysis of Methane in the Bubbles and Sediment Porewater of Ponds to Determine Methane

Production Pathways

Adviser: Ruth Varner

Colleen Donovan

Nutrition, Psychology

The Effects of Calorie Restriction on the

Development of Anxiety in Female Rodents

Adviser: Robert Drugan

Anna Haber

Genetics

Understanding the Role of Polyamines in

Rice under Drought and Salt Stress

Adviser: Subhash Minocha

Amanda Kabel

Biomedical Science

Developmental Pattern of Primary Cilia in

the Mouse Adrenal Glands

Adviser: Xuanmao Chen

Jessica Sexton

Animal Science

Effect of Selenomethionine Hydroxy Analog

(Se-MHA) in the Form of Selisseo (2% Se)

on the Concentration of Selenium in Milk

and in Blood for Mid and Late Lactation

Holstein Dairy Cows

Adviser: Nancy Whitehouse

Cody Symonds

Wildlife and Conservation Biology

Winter Tick Parasitism of Moose: Influence

on Adult Cow Productivity and Winter

Calf Mortality

Adviser: Peter Pekins

Avery Van De Water

Neuroscience and Behavior

Dynamic Causal Modeling of the

Speech Network in Stroke-Induced

Apraxia of Speech

Adviser: Donald Robin

COLSA Undergraduate Research Conference

Poster Presentations

Saturday, April 27
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.

Brienna Achorn

Kerri Strobeck

Biology

Using Cardiac Assay Techniques and Immunohistochemistry to Determine Whether American Lobsters (Homarus americanus) Have Extraocular Photoreceptors in Their Central Nervous System

Adviser: Winsor Watson

Sharlene Amador

Biochemistry, Molecular and Cellular Biology

Colin McGonagle

Biomedical Science

Epidemiology of Staphylococcus Bacteria from Pets and Wild Carnivores in New England

Adviser: Cheryl Marie Andam

Amanda Bagnardi

Neuroscience and Behavior

The Neural Correlates of Frustration

Adviser: Caitlin Mills

John Ball

Krista Mastrogiamo

Biomedical Science

Exploring the Diversity of Antibiotic-Producing Streptomyces Bacteria from Odiorne Point State Park Salt Marsh and Drowned Forest

Adviser: Cheryl Marie Andam

Bethany Balstad

Environmental Sciences

Assessing Gross Depolymerization and Immobilization Rates Using a 15-N Isotope Pool Dilution Assay

Adviser: Stuart Grandy

Maddisun Barrows

Biochemistry, Molecular and Cellular Biology

Long Non-Coding RNA Expression in Waldenström's Macroglobulinemia

Adviser: Sherine Elswa

Morgan Baumgartner

Biomedical Science

The Student-Athlete Wellness Study: An Analysis of Sleep, Diet Quality, and Perceived Stress as Risk Factors for Injury in Division I Student-Athletes

Adviser: Jesse Morrell

Emily Beard

Wildlife and Conservation Biology

Measuring the Effect of Drought on Water Use in Red Maple (Acer rubrum) Trees

Advisers: Heidi Asbjornsen, Matthew Vadeboncoeur

Aidan Benner

Integrated Agriculture Management, Sustainable Agriculture and Food Systems Fertilizer Regime for Organic Strawberry Production

Adviser: Lise Mahoney

Kathryn Bennett

Environmental Sciences, Sustainability Using Stable Isotope Analysis of Methane in the Bubbles and Sediment Porewater of Ponds to Determine Methane Production Pathways

Adviser: Ruth Varner

Emily Berry

Genetics

Do RPA-Dependent Epigenetic Modifications Regulate Early Flowering in Arabidopsis thaliana?

Adviser: Kevin Culligan

Nathan Blais

Christina Lyons

Environmental Sciences

Effects of Storage Time and Temperature on Molecular Analyses of Soil Fauna Communities

Adviser: Jessica Ernakovich

Nathan Blais

Environmental Sciences

Quantifying the Effects of Forest-to-Pasture and Forest-to-Silvopasture Conversions on Supporting and Regulating Ecosystem Services

Adviser: Alexandra Contosta

Jillian Broadhurst

Biomedical Science

Evaluation of Antibiotic Use in Shelter Cats with Upper Respiratory Infection: A Prospective Study

Adviser: Sarah Proctor

Nicole Bumbera

Zoology

Distribution and Abundance of Crassostrea virginica Larvae in the Great Bay, NH

Adviser: Jenn Dijkstra

Jacob Capraro

Sustainable Agriculture and Food Systems

The Path to a Sustainable Meal

Adviser: Todd Guerdat

Vanessa Cardenas

Biomedical Science

Darian Tilton

Biology

Cell Line Authentication Using Short Sequence Repeats

Adviser: W. Kelley Thomas

Hailey Carter

Biology

Investigating the Efficiency of Aerosol Collection Methods

Adviser: James Haney

Alyson Caruso

Statistics

Tialyn Eakman

McKenzie Finigan

Nutrition

Evaluating Skin Carotenoid Levels via the Veggie Meter® in College Men and Women

Adviser: Jesse Morrell

Jasmina Cesko

Biomedical Science

Expression and Regulation of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Ovarian Adenocarcinoma (OVCAR8) and Human Granulosa Tumor (KGN) Cells

Adviser: Paul Tsang

Danielle Chancey

Environmental Sciences

The Influence of Land Use on Wood Decomposition and Algae Growth

Adviser: William McDowell

Renee Chasse

Neuroscience and Behavior

Sex Differences in Ultrasonic Vocalization Emission and Serotonin Dorsal Raphe Activation

Adviser: Robert Drugan

Joseph Chessie

Biology

Determining Self-Quenching Error for Fluorometric Pigment Analysis of Phycocyanin and Chlorophyll α Using Fresh and Frozen Samples

Adviser: James Haney

Maria Clark**Tamara Hathorn**

Biomedical Science

Obesity Mediates Leukemia Progression through Ceramide Kinase and NADPH Oxidase

Adviser: Brian Barth

Brady Clarke

Marine, Estuarine and Freshwater Biology

Understanding the Future of Oyster Aquaculture in the Great Bay: Applications of the IPCC Anticipated Ocean Acidification Impacts

Adviser: Larry Harris

Andrea Cote

Biochemistry, Molecular and

Cellular Biology

Devil's Club: The Alaskan Ethnobotanical Plant and the Opportunity for the Development of Foregut Cancer Therapeutics

Adviser: Brian Barth

Annie Cotter

Genetics

The Relationship between Microbial Diversity and Aggregation of Soils under Varying Levels of Tillage Treatments at Kingman Farm

Adviser: Jessica Ernakovich

Corina Danielson

Wildlife and Conservation Biology

Factors Influencing Seed Selection by Small Mammals in New England Forests

Adviser: Rebecca Rowe

Diane DeVries

Environmental Sciences

Comparing Amino Acid Sample Recovery for Heated vs. Non-Heated N₂ Reduction (a 15N-Isotope Pool Dilution Method)

Adviser: Stuart Grandy

Matthew Dean

Biology

Molly Erickson**Sierra Moline****Tiffany Winter**

Marine, Estuarine and Freshwater Biology

Green Sea Urchin Aquaculture

Adviser: Larry Harris

Daniel DiRocco

Biochemistry, Molecular and

Cellular Biology

*Investigating the Role of Protein Phosphatase 2A in the Salt Stress Response in *Arabidopsis thaliana**

Adviser: Estelle Hrabak

Colleen Donovan

Nutrition, Psychology

The Effects of Calorie Restriction on the Development of Anxiety in Female Rodents

Adviser: Robert Drugan

Maura Donovan**Sophie Kenny****Madeline Quigley**

Nutrition

Understanding Male College Athletes' Perceptions Related to the Purpose of Body Composition Assessment Using Air Displacement Plethysmography

Adviser: Kevin Pietro

Anna Dorrance

Marine, Estuarine and Freshwater Biology

*Effects of Claw Removal on Jonah Crabs (*Cancer borealis*)*

Adviser: Winsor Watson

Colleen Dunphy

Environmental Sciences

The Influence of Foliar Chemistry and Stream Nitrate Levels on Leaf Decomposition

Adviser: Adam Wymore

Allison Easterbrook

Neuroscience and Behavior

Music and Improvisation Brain Activation: A Meta-Analysis and Functional Model

Adviser: Donald Robin

Megan English**Samuel Tardiff**

Environmental Conservation and Sustainability

Alexis Sims

Environmental Sciences

New Hampshire Town and Voice

Adviser: Catherine Ashcraft

Mitchell Ensinger

Environmental Sciences

Impacts of Road Salt on Freshwater Aquatic Ecosystems

Adviser: Alan Baker

Devyn Enwright

Biomedical Science

Diagnostic Findings in Caprine and Ovine Submissions to the NHVDL 2006-2018

Adviser: David Needle

Emma Faddoul

Biomedical Science

Differences in Social Behavior of Chimpanzee Mothers Based on Sex of Offspring

Adviser: Andrew Conroy

Benjamin Fehr

Mathematics, Sustainable Agriculture and Food Systems

Harnessing the Power of Ecosystem Services to Save the Future of Coffee: A Bioeconomic Approach

Adviser: Shady Atallah

Sarah Filion

Biochemistry, Molecular and

Cellular Biology

Linking Activity of DNA Damage Response (DDR) Proteins to Temporal Map of Histone Modifications

Adviser: Feixia Chu

Ashlee Fiore

Genetics

Analysis of STAT3 and STAT5 Activity in Breast Cancer

Adviser: Sarah Walker

Travis Fischer

Biochemistry, Molecular and
Cellular Biology

*Investigating GLI3 Interacting Proteins in
Innate Immune Cells*

Adviser: Sherine Elsawa

Timothy Fischer

Sustainable Agriculture and Food Systems
*Self-Pollination and Development of
Organic Strawberries in New England*

Adviser: Lise Mahoney

Olivia Fortuna

Wildlife and Conservation Biology

*Lasting Effects of White-Nose Syndrome:
Wing Damage and Reproductive Status of
Little Brown Bats (*Myotis lucifugus*)*

Adviser: Rebecca Rowe

Jeremiah Friedman

Biochemistry, Molecular and
Cellular Biology

*Characterizing Expression of S-Acyl
Transferase Gene in *Arabidopsis thaliana**

Adviser: Estelle Hrabak

Justin Furrow

Environmental Sciences

*Abuscular Mycorrhizal Fungi Symbiosis
in Crops Affected by Pesticide Seed
Treatments*

Adviser: Richard Smith

Marissa Gast

Biology, Theatre

*Influence of Soil Salinity on Plant
Community Distribution on Appledore
Island, ME*

Adviser: Gregg Moore

Samantha Ginsburg

Neuroscience and Behavior

*Examination of Resting State Brain
Oscillations in Participants with Multiple
Concussions*

Adviser: Robert Ross

Anna Haber

Genetics

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

Adviser: Subhash Minocha

Jennifer Halloran

Biochemistry, Molecular and
Cellular Biology

CRISPR Mediated Knockdown in the Hydra

Adviser: David Plachetzki

Jessica Haskins

Genetics

*Detection of American Eel and River
Herring in New Hampshire Rivers Using
eDNA: A Comparison of Metabarcoding
and ddPCR*

Adviser: Alison Watts

Jackson Hastings

Genetics

*Disentangling the Mechanisms of
Toxin Sequestration in the Poison Frog,
*Ranitomeya imitator**

Adviser: Matthew MacManes

Anna Hayes**Kaitlyn Howard**

Neuroscience and Behavior

Abigail Sheridan

Genetics

*The Influence of Thalamic Manipulations
on Cortical Activity in Rats Performing the
DNMTP Task*

Advisers: Miranda Francoeur,
Robert Mair

Molly Henion

Equine Studies

*A Review of Equine Laminitis: Risk Factors
and Predispositions*

Adviser: Christina Keim

Dena Hoffman

Environmental Sciences

*Connecting Composting and Greenhouses:
An Energy Usage Model*

Adviser: John Aber

Brooke Howland

Biochemistry, Molecular and
Cellular Biology

*An Emerging Seafood-Borne Pathogen:
Sequence Type 36 *Vibrio parahaemolyticus**

Adviser: Cheryl Whistler

Nhen Hunter

Genetics

*Modeling Gene Gain and Loss across the
Metazoan Tree: Are Sponges Degenerate?*

Adviser: Matthew MacManes

Mary Hurley

Biochemistry, Molecular and
Cellular Biology

Mariam Traore

Biomedical Science

*Perfluorinated Compound Regulation of
Sphingolipid Metabolism in Acute Myeloid
Leukemia*

Adviser: Brian Barth

Amalia Jereczek

Biomedical Science

Hannah Stewart

Environmental Conservation and
Sustainability, Environmental and
Resource Economics

*Plastic Use by Gender on the University of
New Hampshire's Campus*

Adviser: Patricia Jarema

Madeline Juffras**Michael Zampini**

Environmental Sciences

Clarice Perryman

Earth Sciences

*Scaling Methane Emissions Using
Vegetation Cover Type at Sallie's Fen*

Adviser: Ruth Varner

Amanda Kabel

Biomedical Science

*Developmental Pattern of Primary Cilia in
the Mouse Adrenal Glands*

Adviser: Xuanmao Chen

Nathaniel Kinsman

Marine, Estuarine and Freshwater Biology

*"Not So Lice": Developmental Sampling
Methods of Sea Lice on UNH Caged*

*Steelhead Trout (*Oncorhynchus mykiss*)*

Adviser: Elizabeth Fairchild

Robert Lafreniere

Marine, Estuarine and Freshwater Biology

*Monitoring the Success of Restored New
England Dune Systems: Results from*

Harborside Dunes, Seabrook, NH

Adviser: Alyson Eberhardt

Abigail Leclerc

Biology

*Cyanobacteria and the Food Web of
Norway Pond*

Adviser: James Haney

Samantha Leef

Biomedical Science

A Developmental Study of Apoptotic Markers and Histamine Receptors in Cephalopod Statocysts

Adviser: David Needle

Allison Lehoux

Sustainable Agriculture and Food Systems

Enabling Hydroponics: Evaluating Root Development Using Synthetic and Aquaponic Nutrient Sources

Advisers: Todd Guerdat, Anissa Poleatewich

Allison Lehoux

Sustainable Agriculture and Food Systems

Evaluation of a Rapid, Low-Cost Method for Measuring Oxalic Acid Content in Kiwiberries

Adviser: Iago Hale

Robert Lenox-Pulgarin

Genetics

Effect of Selenium on the Expression of Cysteine Rich 61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine Luteal Cells

Adviser: Paul Tsang

Ian Lichtenstein

Biomedical Science

A Comparison of Pre- and Post-Operative Transfusion Treatments for the Prevention of Transfusion Transmitted Malaria in Local Ghanaian Hospitals

Adviser: Adele Marone

Jade Long

Community and Environmental Planning

Creating a Combined Pedestrian-Vehicle Accident Reporting System: Analyzing Durham and UNH Police Departments' Accident Reports

Advisers: Mary Friedman, Stephen Pesci

Brianna Looney

Biomedical Science

*The Role of Nutritional Supplementation in Lessening the Negative Effects of the Biomedical Bleeding Process on the American Horseshoe Crab, *Limulus Polyphemus**

Adviser: Winsor Watson

Jingjing Lou

Biochemistry, Molecular and Cellular Biology

*Biophysical Studies on an Antifreeze Protein from the Desert Beetle, *Anatolica polita**

Adviser: Krisztina Varga

Alexis Maillet

Biomedical Science

PDE1 and PDE4 as Potential Targets for Nematicide Development

Adviser: Rick Cote

Amber McElhinney

Equine Studies

Three-Dimensional Echocardiographic Analysis of the Equine Aortic Valve

Advisers: Andrew Conroy, Peter Erickson, John Keen

Paige McKibben

Environmental and Resource Economics

What Is Our Water Worth and What Does Our Water Cost?

Advisers: Shannon Rogers, Alison Watts

Mackenzie Meier

Zoology

Bryde's Whale Call Structure and Seasonal Distribution in the Equatorial Pacific

Advisers: Daniel Howard, Jennifer Miksis-Olds

Christopher Mikulewicz

Environmental Sciences

Agricultural Impacts on Microbial Composition and Decomposition Rates on Two Streams in New Hampshire

Adviser: Jessica Ernakovich

Nicholas Miller

Biomedical Science

Effect of Aging on Sensorimotor Processing: An ERP and Response Time Investigation

Adviser: Ronald Croce

Lily Mooney

Biochemistry, Molecular and Cellular Biology

*Characterization of the Protein S-acyl Transferase Mutant pat4-4 in *Arabidopsis thaliana**

Adviser: Estelle Hrabak

Matthew Morris

Wildlife and Conservation Biology

Identifying Dispersal Corridors for the Endangered New England Cottontail

Advisers: Ethan Belair, Steven Roberge

Kayli Neil

Biomedical Science

Targeting STAT3 with Atovaquone in Ovarian Cancer

Adviser: Sarah Walker

Amber Nurse

Biomedical Science

Quantitative Histone Modification Characterization of Endoderm Cells

Adviser: Feixia Chu

Jenna O'del

Wildlife and Conservation Biology

Soil Seed Bank Response Following Forest Conversion to Silvopasture and Open Pasture

Advisers: Richard Smith, Nicholas Warren

Abigail Palin

Biochemistry, Molecular and Cellular Biology

*Comparing the Effects of Serum Starvation on the Expression of Cysteine Rich**61-Connective Tissue Growth Factor-Nephroblastoma Overexpressed 1 (CCN1) in Bovine and Human Ovarian Granulosa Cells*

Adviser: Paul Tsang

Hannah Pare

Genetics

Maternal Aggression and Nestmate Interactions in a Facultatively Social Bee

Adviser: Sandra Rehan

Trey Patno

Biochemistry, Molecular and Cellular Biology

*Does Basic Fibroblastic Growth Factor (FGF2) Regulate the Expression of the**Angiogenic Inducer (CCN1) in Bovine Luteal Cells?*

Adviser: Paul Tsang

Melissa Perry

Biochemistry, Molecular and Cellular Biology

Quantification of Histone Modifications of Neural Progenitor Cells

Adviser: Feixia Chu

Margaret Phillips

Environmental Sciences

The Role of Small Reservoirs in Reducing Reactive N Export via Denitrification

Adviser: Wilfred Wollheim

Ryan Puterbaugh

Biochemistry, Molecular and Cellular Biology

Biological Applications of NMR Spectroscopy

Adviser: Krisztina Varga

Adriana Radosavljevic**Tyler Silverwood**

Biochemistry, Molecular and Cellular Biology

The Effects of Methamphetamine on Histone Modifications

Adviser: Feixia Chu

Emily Ray

Marine, Estuarine and Freshwater Biology, Neuroscience and Behavior

A Freshwater Lake on a Maritime Island: The First Limnological Assessment of Crystal Lake

Adviser: David Buck

Emily Ray

Marine, Estuarine and Freshwater Biology, Neuroscience and Behavior

Evaluating the Efficiency of Glass Fiber Filters in Cyanotoxin Aerosol Collection

Adviser: James Haney

Matthew Rich

Genetics

Transgenic Arabidopsis thaliana: The Synthesis of Human α -Galactosidase-A

Adviser: Subhash Minocha

Kara Rzasa

Biochemistry, Molecular and Cellular Biology

Developing Galleria mellonella as an Infection Model for Virulent Mutations in Vibrio parahaemolyticus

Adviser: Cheryl Whistler

Walkania Santos Regaldo

Biomedical Science

Finding Alternative Ways to Synthesize Precursors for Small Molecule Inhibitors of β -lactamase Enzymes

Advisers: Marc Boudreau, Deisy Pena-Romero

Evan Schafer

Biochemistry, Molecular and Cellular Biology

Sympatric Evolution of Vibrio fischeri Strain H905 to Potential Pathogenicity from a Mutualistic Lineage

Adviser: Cheryl Whistler

Evan Schafer

Biochemistry, Molecular and Cellular Biology

Using Comparative Transcriptomics to Analyze Differences between Lung Cancer, Colorectal Cancer, Acute Myeloid Leukemia, and Their Respective Healthy Controls

Adviser: Brian Barth

Kali Scott

Biomedical Science

Recombinant Expression, Purification and Antimicrobial Activity of Mammalian Antimicrobial Peptides in E. coli

Adviser: Subhash Minocha

Brennan Senecal

Genetics

Gene Dosage May Explain Phenotypic Differences between Mutants in Arabidopsis

Adviser: Estelle Hrabak

Hannah Siegel

Biomedical Science

Analysis of Phytoestrogens in Legumes through HPLC

Adviser: Marta Lima

Heidi Simoneau

Environmental Sciences, Justice Studies

Effects of Dams on Water Quality

Adviser: Wilfred Wollheim

Nathaniel Spada

Marine, Estuarine and Freshwater Biology

The Impact of Ocean Acidification on the Olfactory Abilities of Homarus americanus during Prey Acquisition

Adviser: Winsor Watson

Ryan Spelman

Biology

Effect of Plant Cultivar on Efficacy of Biochemical Inducers for Suppression of Plant Diseases

Adviser: Anissa Poleatewich

Casey Sturzo

Animal Science

Effect of Feeding Strategy on Growth and Body Composition of Striped Bass Cultured in Recirculating Systems

Adviser: David Berlinsky

Andrew Sullivan

Marine, Estuarine and Freshwater Biology

Evolutionary Genomic Insights on Novel Trait Evolution in Hagfish

Adviser: David Plachetzki

Emily Sullivan

Biochemistry, Molecular and Cellular Biology

Gdf1 Regulates Sphingolipid Metabolism in Acute Myeloid Leukemia

Adviser: Brian Barth

Cody Symonds

Wildlife and Conservation Biology

Winter Tick Parasitism of Moose: Influence on Adult Cow Productivity and Winter Calf Mortality

Adviser: Peter Pekins

Ivey Telles

Genetics

White-Nose Syndrome: Analysis of the Microbiome in Infected and Non-Infected Eptesicus fuscus

Adviser: Matthew MacManes

Michael Thompson

Wildlife and Conservation Biology

How Surrounding Landscape Composition Affects Avian Diversity within Shrubland Habitat Patches

Adviser: Matthew Tarr

Bonnie Turek

Environmental Conservation and Sustainability

Greenhouse Gas Ebullition in Streams of Varying Watershed Land Use and Sediment Composition

Adviser: Wilfred Wollheim

Avery Van De Water

Neuroscience and Behavior

Dynamic Causal Modeling of the Speech Network in Stroke-Induced Apraxia of Speech

Adviser: Donald Robin

Bailey Veilleux

Animal Science

Use of the Plasma Free AA Dose-Response Technique to Quantify Bioavailability of Rumen-Protected Histidine

Advisers: Andre Brito, Nancy Whitehouse

Sean Vigeant

Biomedical Science

Bioinformatic Analysis of Staphylococcus pseudintermedius Genomes, an Important Bacterial Pathogen in Pet Animals

Adviser: Cheryl Marie Andam

Caitlyn Vincent

Biomedical Science

Occurrence of Blood Parasites in Raptors, Waterfowl, and Seabirds Admitted for Wildlife Rehabilitation in the Northeast United States

Adviser: Jennifer Purrenhage

David Walker

Biomedical Science

Effect of STAT3 Inhibition on Ovarian Cancer Mesothelial Clearance Ability

Adviser: Sarah Walker

Nicole Williamson

Ecogastronomy, Environmental Sciences

Designing a Biofilter to Remove Ammonia from a Commercial Scale Composting Facility

Adviser: John Aber

Brittnee Wirth

Biochemistry, Molecular and Cellular Biology

Characterizing STAT3 Activity in Cisplatin-Sensitive and -Resistant Ovarian Cancer Cells

Adviser: Sarah Walker

Madeline Young

Biology

The Role of Chitosan in Improving Plant Iron Deficiency Chlorosis

Adviser: Marta Lima

Dania Zaiter

Genetics

Exploring the Potential of Marine Actinobacteria as Source of Novel Antibiotics

Adviser: Cheryl Marie Andam

Michael Zampini

Environmental Sciences

Impact of Nitrogen Inputs on Plant Composition at a New Hampshire Fen

Adviser: Ruth Varner

Peter T. Paul College of Business and Economics First-Year Innovation and Research Experience (FIRE) URC**Poster Presentations & Oral Presentations****Saturday, April 27
9 a.m.–2 p.m.
Paul College**

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

Grand Challenge: Energy**Team: You Know What's Better Than 24...25**

Adviser: Jocelyn Petry

Jacob Abdallah

Patrick Carey

Natalie Haddon

Ethan Keslar

Eryn Pierce

Christopher Ploss

Dominic Silverio

Morgan Smith

Brook Soucy

Kyle Spagnuolo

John Standish

Kemal Warouw

Joshua Woods

Business Administration

Elijah Gaumont

Ashley Miles

Lisa Robidoux

Cathryn Scanlon

Matthew Tiller

Undeclared

Team: Fireball

Adviser: Alana Hovey

Garrett Allen

Izaiah Barba

Patrick Cotter

Natalie Gagnon

Paul Hernandez

Nicholas Horn

Cory Jones

Samuel Kehoe

Bailey Kierstead

Kyra LaDue

Emma LaPosta

Giuliana LaRose

Olivia Viall

Ryan Visich

Brittney Walker

Teddy Wesche

Hannah Wirth

Business Administration

Jack Falvey

David Thurston

Undeclared

Team: Fire Department

Adviser: Jennifer Lueke

Alexander Amigo

Olivia Balabanis

Emma Coakley

Benjamin Humphreys

Shane Kelley

Quinn Mantegari

Thomas Meagher

Matthew Minton

Merrimac Moran

Alexis Parlman

Haley Robertson

Zachery Scheib

Owen Sullivan

Riley Wigmore

Business Administration

Johnny Geraci

Stewart Kirkpatrick

Kelsey MacLeod

Wyatt Quinlan

Undeclared

Team: Paul Blart

Adviser: Kosta Triantafillakos

Austin Baird
Megan Bufagna
Timothy Campbell
Benjamin Cappiello
Olivia Deem
Owyn Desrochers
Luke Downie
Jack Driscoll
Drew Kibby
Dylan Oakes
Matthew Perry
Devon Pierre-Louis
Kayla Prusik
Business Administration
Lillian Bennett
Mark Borak
Madison Sullivan
Undeclared

Team: Hanzla's Hungry Herd

Adviser: Hanzla Sheikh

Sarah Blampied
Jessica Ferrari
Ani Hastings
Jack Kelly
Andrew Martineau
William Needham
Undeclared
Christina Bomberg
Colin Buckley
Matthew Coda
Nathaniel Cohen
Ryan Dooley
Justin Dragone
Ladd-Patrick Fagerson
Thomas Farrelly
Claudia Fox
Ivy Gogolin
Nicholas Lester
Stephen Simpson
Business Administration

Team: Dunder Mifflin

Adviser: Jemina Shepherd

Emily Bolognino
Nicholas Colabatistto
Matthew Connolly
Killian Dowd
Camden Hearn
John Helmanis
Wesley Kunin
Liam Lake
Isabella Lovering
Thurston Mann
Dustin Rose
Samuel Shepard
Carter Snow
Economics
Spencer Burgess
Jack Kelly
Business Administration
Brianna Jones
Kaleigh Reynolds
Vanessa Rodolosi
Undeclared
Robbie McGahan
Finance

Grand Challenge: Housing

Team: Peter T. Prodigies

Adviser: Natalie Mahoney

Brooke Adelman
Ashley Aversano
Shawn Bedard
Sydney DeJager
Victor Djoletto
Jacob Duffy
Rayhan Khan
Aidan Lawlor
Grace MacDonald
Nic Malecha
Andy Mino
Jack Mulhare
Emily O'Keefe
Ethan Oglesby
Andrew Philbrick
Business Administration
Joseph DeMarco
Julianna Farnam
Victoria Palumbo
Undeclared
Jordan Phillips
Economics

Team: Fire Five

Adviser: Devin McMahon

Sofia Barrett
Alexis Butler
Max Chisholm
Justin Diamantopoulos
Curtis Grundy
Jessica Huth
Conor Jowett
Julia Lambert
Sarah McIlroy
Peter Mitchell
Georgi Munick
Andrew Onofrio
Cierra Slade
Samuel Taub
William White
Dan Wilhelmy
Riley Zaya
Business Administration
Liam Fay
Luke Geraci
Brendan Sullivan
Undeclared

Team: Big Pauler Brand

Adviser: Max Polay

Macguire Beggin
Bryn Larkin
Brian Quinn
Shreya Yadav
Undeclared
Quinn Cantrill
Elizabeth Hart
Spencer Leger
Cameron McNally
Matthew Morrison
Chloe Otterbeck
Jacob Parilla
Hailey Parker
Andrea Price
Zachary Rinkus
Jonah Rook
Ashley Round
Isabelle Smith
Business Administration
Kyle Ferreira
Finance

Team: Dos Siete

Adviser: Andrew Kelly

Brandon Berube
 Shane Bilodeau
 Jacob Burhans
 Stephen Cote
 Dylan Degon
 Jason Gamache
 Celene Ghattas
 Jessica Klein
 Katelyn LaRosa
 Eleanor Landry
 Amy Musgrave
 Drew Pearsall
 Daniel Shooshanian
 Meredith Thibodeau
 Emma Zupo
 Business Administration
 Aidan Burke
 Zachary German
 Jacqueline Helle
 Undeclared

Team: The Goats

Adviser: Emily Rich

Zachary Broder
 Ian Daly
 Harley Guerrieri
 Mitchell Hayes
 Hayley Isdale
 Radheya Karpuram
 Joanna Lazzaroni
 Cole Manz
 Justin Pettine
 Jared Reynolds
 Spencer Rooney
 James Tavalone
 Luca Tosi
 Brandon Tweed
 Emma Wilkins
 Business Administration
 Liam Kelleher
 Jordan Lemieux
 Kevin McAvoy
 Undeclared

Team: Pauls of Fire

Adviser: Brittney Wallace

Bryan DeCristoforo
 Patrick Finnie
 Kathleen Flath
 Anthony Gianelly
 Sayler Hamilton
 Zachary Keating
 Dylan Lemis
 Nicholas Miraglia
 Alex Moreira
 Julia Nichols
 Dominick Riccio
 Morgan Ryall
 Marisa Sabbia
 Andrew Shumski
 Ryan Smith
 Jacob Tomaso
 Ethan Tumeinski
 Samantha Tyler
 Matthew Wilson
 Luke Woodward
 Business Administration
 Kayla Edminster
 Analytical Economics
 Sophia St. Jacques
 Undeclared

Grand Challenge: Infrastructure**Team: Pauly D**

Adviser: Connor Cote

Paige Albert
 Caitlin Diver
 Evan McParland
 Samuel Siegal
 Zachary Suozzo
 Undeclared
 Joseph Bagarella
 David Beauregard
 Sara Campbell
 Luke Chisholm
 Maria Eduarda Dos Santos Koch
 Matthew Gregg
 Richard Hartnett
 Jillian Locandro
 Katie Nestor
 Alexis Pimental
 Armando Roberto
 James Sturtz
 Justin Trevisani
 Michela Ur
 Business Administration

Team: Team 3 Hospitaliteers

Adviser: Ruth Smith

Claire Anderson
 Axis Balsley-Petraska
 Erin Casey
 Abby Dansreau
 Olivia Gallo
 Isabel Lopiano
 Jon Marchiolo
 Abigail Meyers
 Kayla Murphy
 Morgan Oberly
 Liliana Prine
 Charles Sacher
 Brooke Samora
 Annah Santarosa
 David Volz
 Hospitality Management
 Adrianna Dinsmoor
 Evan Shaw
 Business Administration

Team: Freshman 15

Adviser: Christina Pescatore

Jenna Barrows
 Patrick Burt
 Dylan Cunningham
 Kelsie Dawe
 Jake Donahue
 Colin Dow
 Emily Dysart
 Abigail Estabrook
 Christopher Hanson
 Thomas Hooker
 Seth Kloczkowski
 Alexander Meehan
 Michael Moussalli
 Kendall Orcutt
 Ryan Quinn
 Madison Rogers
 Business Administration
 Sean Bunnell
 Olivia Farmer
 Ellie Johnston
 Kevin Quinn
 Undeclared

Team: A Buncha Dimes

Adviser: Gianna Alberici

Nicholas Bernardo
 Jack Brown
 Camille Bruen
 Michael Dambach
 Alicia Hanlon
 Courtney Jacques
 Richard Jean
 Rebecca Milbury
 Gregory Minichiello
 Matthew Thomas
 Kaitlyn Yee
 Undeclared
 Aran Cherouvis
 Dominick DelGavio
 Zachary Edwards
 Julie Gagnon
 Ryan Gallagher
 Emily Graves
 William Sabatino
 Business Administration
 Nathaniel Kelly
 Economics

Team: Clean 16

Adviser: Madeline Karlberg

Anders Brucker
 Conner Furtado
 Briella Hirsch
 Iraklis Pagounes
 Nicole Petry
 Kyle Rayment
 Maxim Sirmaian
 Nathaniel Soddors
 Abigail Stoehrer
 Ian Stromski
 Business Administration
 Ryan Johnson
 Adam Leech
 Christopher Nanni
 Grace Nealon
 Hailley Simpson
 Gabrielle Sott
 Undeclared
 Christina Soule
 Economics

Team: Fire at Will

Adviser: Nicholas Snedegar

Hannah Cloutier
 Yaniv Kapsan
 Matthew Lamarche
 Jonathan Leone
 Morgan McKenney
 Lauryn Murray
 Nick Pottle
 Shafer Rancourt
 Mackenzie Redmond
 Tristan Reenstierna
 Alyssa Regan
 Tiffany Roderick
 Shawn Thorburn
 Caroline Valluzzi
 Business Administration
 Ryan Groark
 James McGrath
 Cole Spence
 Michael Teevens
 Undeclared

Grand Challenge: Robotics**Team: Big Paulers**

Adviser: Emma Blatt

Rye Alley
 Tanner Brown
 Austin Chausse
 Ryan Clifford
 Kate Cone
 Andrew Connelly
 Hannah Donahue
 Stuart Green
 Mehdi Orogi
 Leith Sukkar
 Mary Sullivan
 Anya Szczepanowski
 Brigitte Thompson
 Will Tosi
 Business Administration
 Carly Demanche
 Lucas Kenney
 Leanne Nosiglia
 Undeclared

Team: Strictly Business

Adviser: Abigail Chapman

Gracie Anderson
 Tess Garrity
 Rory O'Driscoll
 Nikolas Papa
 Jackson Pierson
 Jake Tuleja
 Evan Vogler
 Undeclared
 Travis Arnold
 Sophia Autio
 Zach Banks
 Steven Chartier
 Joseph Cipollone
 Kelly Hamlin
 Jacob Post
 Emily Szubinski
 Ryan Verrier
 Dylan Weir
 Business Administration
 Matthew O'Neill
 Economics

Team: 9+10

Adviser: Emily Grone

Erica Antonellis
 Rebecca Bahlert
 Brendan Campbell
 Zachary Caputo
 Domenic Ferretti
 Robert Horgan
 Sean Leary
 Camden Leno
 Matthew Marino-Babcock
 Lisa Olsson
 William Rudaz
 Rosalee Varian
 Business Administration
 Lauren DeStefano
 Caitrin Hand
 John King
 Connor McDonald
 Charlotte Townshend
 Amanda Zubricki
 Undeclared

Team: Cheese Touch

Adviser: Matthew Haley

Ava Bayus
 Maxwell Cooperman
 Andrew Cratty
 Kyle Farrington
 Sydney Gast
 Daniel Graham
 John Guenthner
 Trent Henrich
 Alexa LaCroix
 Zachary Loesch
 Oscar Molina
 Lizzy Pateuk
 Robert Raleigh
 Austin Wallace
 Business Administration
 Adam Costa
 William Graikoski
 Sam Journeay
 Olivia LeClerc
 Hanna Manca
 Kathryn Rascoe
 Undeclared

Team: Paul Flight Club

Adviser: William McConville

Michael Clow
 Robert Demeo
 Dreyton Dill
 Christopher Donnelly
 Eric Esposito
 Noah Lapointe
 Angela Moquin
 Mary Moynihan
 Osho Omoyeni
 Adena Rothbard
 Ashley Ryan
 John Stewart
 Business Administration
 Lindsey Dumond
 Reid Kirkpatrick
 Kyle Lepkowski
 Will MacKinnon
 Cadence Turner
 Cole Vincenzi
 Matthew Whelan
 Patrick Wolohan
 Undeclared
 Rachel Spaulding
 Business Administration, Spanish

Team: Super Hot Fire

Adviser: Sean Hickey

Elizabeth Dion
 Aidan Holland
 Ian Jeffery
 Patrick Shaughnessy
 Troy Studley
 Undeclared
 Michael Jones
 Economics
 Emilie Kruzel
 Cameron Marshall
 Abigail Myers
 DNhim Nhim
 William Papageorge
 Anthony Paul
 Joseph Phinney
 Eric Poublon
 Lily Scott
 Colleen Spear
 Jacob Teixeira
 Isabella Traeger
 Jessica Walsh
 Business Administration

Grand Challenge: Sports**Team: 13 Going on 30**

Adviser: Andrea LaBonte

Cory Arscott
 Jordan Bohan
 Ian Bushnell
 Logan Calcagni
 Michael Card
 Matt Cunningham
 Blake Drouin
 Ryan Ellsworth
 Lexie Inglesi
 Shane MacEachern
 SiannaMarie Milone
 Jenna Peterson
 Jack Potvin
 Hailey Reiff
 Shania Robinson
 Kyle Shoulkin
 Business Administration
 Aidan Meyer
 Analytical Economics
 Brian Nguyen
 Business Administration, Finance,
 Marketing

Team: Paul's Gr8est

Adviser: Alexis Gray

Sophia Badala
 Conor Clifford
 Matthew Freitas
 Andrew Meyer
 Jessica Pierson
 Ethan Pollet
 Business Administration
 Riley Barton-Schwartz
 Brett DiStasio
 Jill Durkin
 Henry Piacquad
 Fiona Plante
 Undeclared
 Anthony Capo
 Benjamin Clement
 Joseph Lampe
 Shane Murphy
 Colin Sprague
 Analytical Economics
 Jack Larche
 Christopher Mudrick
 Brahim Yatim
 Zachary Yeaton
 Economics

Team: Risky Bu22iness

Adviser: Alexis Deplitch

Rachel Beck
 Emily Curtis
 Olivia Gagnon
 Samantha Kelleher
 Jack Norton
 Jared Ouellette
 Nicolas Towey
 Undeclared
 Haley Donovan
 Katharine Hawkinson
 Niko Kakouris
 Drew Landers
 Daniel Mahoney
 Matthew Messer
 Jeff Potere
 Kagen Robertson
 Victoria Rothwell
 Samuel Slobin
 Andy Yang
 Business Administration
 Kendrick Shaw
 Hospitality Management

Team: Brian's Chipwiches

Adviser: Brian Dezurick

Ian Berens
 Brendan Donahue
 John Downey
 SeanPatrick Flynn
 Briggs Haugen
 Harrison Hawkins
 Katelyn Howe
 Nicholas Mokas
 Liam Morrissey
 Tristan Pavarini
 Lucas Schnare
 Cameron Taatjes
 Sarah Wilkinson
 Analytical Economics
 Logan French
 Hannah Riley
 Peder Syvertsen
 Economics
 Margo Lieb
 Margaret Wade
 Undeclared
 Emily Soule
 Nathan Twarog
 Business Administration

Team: Paul So Hard

Adviser: Caitlin Coxen

Claire Bettor
 Sydney Booth
 Keyton Chapman
 Hartley Curran
 Caroline DiGravio
 Brett Dodier
 Mark Driscoll
 Julie Freitas
 Garrison Gazvoda
 Kelsey Johnson
 Elizabeth Liberta
 Jake Malatesta
 Benjamin Merrill
 Nate Richard
 Evan Schwartz
 Wesley Stilson
 Business Administration
 Alexandra Hawtin
 Justin Knight
 Savannah Moore
 Matthew Pepin
 Elise Yabroudy
 Undeclared

Team: Good Luck Charlie

Adviser: Charles Andes

Justin Colizzi
 Mitchell Dreyer
 Kaitlin Griffin
 Cameron Kelley
 Andrew Micale
 Nicholas Molinaro
 Phoebe Myers
 Maxwell Sallee
 Diego Smith
 Rachel Stryke
 Alex Tarczon
 Austin Wentzel
 Nicole Yelle
 Business Administration
 Ashim Gurung
 Jillian Lawrence
 Kayla Magwood
 Myles Maloof
 Undeclared

Ann Manchester Kelley Nursing Inquiry Day

**Thursday, May 2
 12–4 p.m.**

**Memorial Union Building,
 Strafford Room**

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

Chemistry Department Poster Exhibition

**Thursday, May 2
 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.

Siran Cinar

Chemistry
Synthesis of Proline Derivatives for Incorporation into Phosphoramino Acid-Based Inhibitors of Metallo- β -Lactamase Enzymes
 Adviser: Marc Boudreau

Hannah Coco

Chemistry
Chiral Enhancement of Carbon Dots Synthesized from Amino Acids and Their Applications in Amyloid-Beta 42 Fibrillation
 Adviser: Christine Caputo

Noah Cote

Chemistry
Synthesis of 2,3-Benzoxepin for Comparative Two Electron Oxidation Studies with Cerium(IV) Ammonium Nitrate and Cytochrome P450
 Adviser: Arthur Greenberg

Jason Cournoyer

Biochemistry, Molecular and Cellular Biology
Exploring C-H Amination Methodology for the Preparation of Peptide Synthesis-Ready Enduracididine Derivatives
 Adviser: Marc Boudreau

Victoria Curtin

Chemistry
Studies in Zinc Carbenoid-Mediated Chain Extensions and β -Proline Derivative Formations via Activated Imines in the Presence of γ -Keto Esters

Katherine Dombroski

Chemistry
From Your Kitchen to Your Car: Turning Cooking Oils into Biofuels
 Adviser: Margaret Greenslade

Connor Haney

Biochemistry, Molecular and Cellular Biology
Rudimentary Protein Mimics: Intramolecular Cross-Linked Linear Proteins
 Adviser: Erik Berda

Sarah Harvey

Chemistry, Neuroscience and Behavior
Peptide Neurotransmitters and the Opioid Crisis
 Adviser: Margaret Greenslade

Christopher LaSalle

Chemistry
Styrene-Based Single-Chain Nanoparticles via Atom Transfer Radical Coupling: Structural and Electronic Effects
 Adviser: Erik Berda

Alexis Little

Chemistry
The Scientific and Social Effects of Major Drug Neurontin
 Adviser: Margaret Greenslade

Michael Moheban

Chemistry
Synthesis of Inorganic N-Heterocyclic Carbene Derivatives for Transition Metal Catalysis
 Adviser: Christine Caputo

Eliza Mullen

Chemistry
Comparison of Fertilizing Practices Used in Industrial and Organic Agriculture
 Adviser: Margaret Greenslade

Walkania Santos Regaldo

Biomedical Science
Finding Alternative Ways to Synthesize Precursors for Small Molecule Inhibitors of β -Lactamase Enzymes
 Advisers: Marc Boudreau, Deisy Pena-Romero

Nathan Shipley

Chemistry
Controllable Synthesis of Single-Chain Nanoparticles via ATRC
 Adviser: Erik Berda

Alexander Tognazzi

Chemistry
Investigation into the Oxidative Properties of In-Capillary Electrodes for Electro-Spray Ionization Mass Spectrometry
 Adviser: Anyin Li

Katelyn Wentworth

Chemistry
Novel Synthetic Applications of Benzyl Cation Chemistry
 Adviser: Richard Johnson

Peter T. Paul College of Business and Economics

Paul J. Holloway Prize Innovation to Market Competition

Championship Round

Wednesday, May 8**1–4:30 p.m. Teams Pitch Ideas****4:30–6:15 p.m. Reception/Awards Paul College**

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

Acknowledgments

The UNH Undergraduate Research Conference has grown to become a signature event at the University and one of the largest and most diverse conferences of its kind. Bringing the URC to fruition each year is the result of a collaborative network of many community members across campus. Here, we acknowledge these individuals and campus units and thank them for helping to make the 2019 URC happen.

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Thanks to the 2019 URC Planning Committee (as well as the many individuals who served on subcommittees):

Amanda Adams, Co-Chair, All Colleges Undergraduate Research Symposium; URC Coordinator, Hamel Center for Undergraduate Research

Lauren Banker, Assistant Director, Alumni Relations

Carole Berry, Co-Chair, ISE Symposium; Administrative Manager, CEPS Dean's Office

Emily Broderick, Associate Director of Donor Relations, Advancement

Daniel Budak, Co-Chair, Graduate Research Conference; Coordinator for Recruitment and Retention, UNH Graduate School

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

Summer Cook, Associate Professor, Kinesiology

Meaghan Ditttrich, Director, Connors Writing Center

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

Brittany Edgar, Assistant Project Manager, CPA

Kate Gaudet, Associate Director, University Honors Program

Hannah Hamalainen, Geospatial and Earth Sciences Librarian, Dimond Library; Assistant Professor

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

Rachel Kim, Assistant Director, Admissions

Eileen Laskoski, Marketing Events Manager, Paul College

Laura Martin, Assistant Director of Donor Stewardship, Advancement

Melda Ormeci Matoglu, Chair, Paul College URC; Assistant Professor, Decision Sciences

Jovana Milosavljevic-Ardeljan, Co-Chair, Graduate Research Conference; Graduate Assistant, UNH Graduate School

Tom Payne, Co-Chair, Naked Arts; Associate Professor, English

Beth Potier, Manager, Research

Communications and Outreach, CPA

Chris Reardon, Professor, Political Science

Richard Smith, Co-Chair, COLSA URC; Associate Professor, Natural Resources and the Environment

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 Coordinator, COLSA, MCBS

Mary Young, Senior Project Manager, Office of the Dean, UNH Manchester

2019 URC Event Chairs/Co-Chairs:

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Holly Cashman, Languages, Literatures, and Cultures Department URC

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Sean Stewart, Paul College FIRE URC

Contributors:

Graphic Design: **Christine Hodgson**
Photography: **Jeremy Gasowski**, **Valerie Lester**, **Lisa Nugent**, **Scott Ripley**

Student Index

Abdallah, Jacob	57	Autio, Sophia	60	Beaudreau, Regan	17	Bondanza, Courtney	42
Abel, Daniel	19	Aversano, Ashley	58	Beauregard, David	59	Booth, Sydney	62
Abramson, Quincy	25	Avery, Rachel	7	Bechtold, Michael	48	Borak, Mark	58
Achorn, Brienna	52	Bach, Jasmin	22	Beck, Rachel	61	Boss, Riley	26, 34
Adamkowski, Vajl	7	Bachry, Olivia	46	Bedard, Alec	42	Bossi, Charles	46
Adams, Benjamin	10	Badala, Sophia	61	Bedard, Shawn	58	Botticelli, Brooke	46
Adams, Franchesca	33	Badylak-Reals, Christin	18	Beggin, Macguire	58	Boudreau, Matthew	47
Adams, Jake	42	Bagarella, Joseph	59	Begin, Paige	10	Boudreau, Ryann	9
Adelmann, Brooke	58	Bagnardi, Amanda	51, 52	Belar, Juliana	27	Boulanger, Alexis	20
Agran-St.Pierre, Sonnet	12	Bahlert, Rebecca	60	Belisle, Emily	12	Boulanger, Jared	42
Ahearn, Austin	12	Bailey, Rebecca	46	Bellinghier, Francesca	46	Bourbeau, Alexis	47
Ahonen, John	33	Bailey, Ryan	18	Benabdelkrim, Issam	14	Bourne, Emily	31
Aiken, Kathryn	45	Baird, Austin	58	Benjaminsen, Peter	12	Bouzianis, Stephen	42, 44
Akiki, Marie	33	Baker, Ian	17	Benner, Aidan	52	Bovie, Adam	24, 37
Albert, Paige	59	Baker, Meredith	33	Bennett, Kathleen	42	Bowring, Ryan	13, 37
Alden, Daroc	13	Balabanis, Olivia	57	Bennett, Kathryn	15, 30, 51, 52	Boyle, Douglas	44
Alhamdan, Nooran	39	Balaska, Audrey	18	Bennett, Lillian	58	Boysen, Adeline	6, 8
Ali, Rezwan	10	Balcom, Emily	11	Benoit, Emily	36	Brachman-Pappas, Kailee	27
Allen, Garrett	57	Ball, John	27, 52	Benson, Brooke	9	Brady, Samantha	16
Alley, Rye	60	Balsamo, Joseph	14	Benson, Gage	42	Brander, Ryan	25
Al-Matrouk, Fouad	46	Balsley-Petraska, Axis	59	Bentley, Clayton	30, 42	Brennan, Melissa	40
Almquist, Emily	27	Balstad, Bethany	52	Benware, Sarah	10	Brennan-Mungovan, Brooke	20, 22
Alstede, Madison	14	Bandera, Victoria	32, 50	Benz, Molly	46	Brennman, Kory	7
Amador, Sharlene	25, 33, 51, 52	Bangma, Philip	17	Berberian, Julie	18	Brewster, Kyle	17
Amico, Zachary	18	Banker, Isabelle	23	Berens, Ian	62	Brewster, Zachary	20
Amigo, Alexander	57	Banks, Zach	60	Berglund, Carina	40	Bright, Sumner	30
Anastasi, Ryan	42	Barakian, Matthew	10	Bernard, Kyle	11	Britt, Lauren	44
Andersen, Kyle	46	Barba, Izaiah	57	Bernard, William	42	Broadhurst, Jillian	52
Anderson, Claire	59	Barbutto, Jennifer	15	Bernardo, Nicholas	60	Broadwater, Samuel	49
Anderson, Gracie	60	Barden, Marisa	20	Bernardy, Castine	11	Broady, Aaron	20
Anderson, Hunter	14	Bardwell, Spencer	51	Berry, Emily	34, 52	Broder, Zachary	59
Anderson, Jakob	14	Baribault-Lee, Elise	17	Berube, Brandon	59	Brogioli, Eric	44
Anderson, Jeffrey	42	Baron, Jeffrey	26	Bettor, Claire	62	Brophy, Brian	17
Anderson, Tristan	19	Barone, Richelle	40	Bevilacqua, Nicholas	46	Brown, Brian	39
Andes, Charles	48	Barrett, Sofia	58	Bezanson, Jodi	30	Brown, Bryce	42, 44
Andonian, Joshua	46	Barricklow, Matthew	17	Bianchi, Anthony	9	Brown, DanaRose	18
Andrade, Nicholas	17	Barrows, Jenna	59	Bianco, Tristen	31, 37	Brown, Jack	60
Andreasson, Sean	42, 43, 48	Barrows, Maddisun	52	Bice, Alexander	42, 46	Brown, Jessica	51
Andronaco, Zachary	9	Bartlett, Cole	41	Bickford, Allison	15	Brown, Julian	34
Andwood, Benjamin	18	Bartlett, Shane	46	Bilodeau, Shane	59	Brown, Nicholas	41
Annis, Kevin	49	Barton, Andrew	20	Blais, Nathan	15, 52	Brown, Peter	39, 44
Antman, Alyssa	26	Barton-Schwartz, Riley	61	Blais, Sawyer	17	Brown, Tanner	60
Antonellis, Erica	60	Barucci, Francesca	10	Blampied, Sarah	58	Brucker, Anders	60
Argue, Catherine	18	Baum, Hannah	31	Blatti, Ryan	17	Bruen, Camille	60
Arling, Christopher	17	Baumgartner, Morgan	34, 38, 52	Bliss, Orrin	16	Bruni, Antonio	47
Armand, Cameron	42	Bayus, Ava	61	Blodgett, Aylssa	16, 27, 34	Bryan, Riley	13
Arnold, Travis	60	Bean, Cameron	48	Bocko, Matthew	14	Bryant, Shannon	27, 50
Arscott, Cory	61	Bean, Emily	30	Bohan, Jordan	61	Buck, Hailey	27
Asbury, Griffin	39	Bean, Samuel	17	Boldis, Allison	34, 50	Buckley, Colin	58
Aubry, Caroline	26	Beanland, Jacob	30	Bolognino, Emily	58	Buckman, Cody	12
Aung, Win Phyu Phyu	44, 46	Beard, Emily	52	Bomberg, Christina	58	Buell, Landon	19

Bufagna, Megan	58	Carter, Charles	38	Clement, Benjamin	61	Cournoyer, Jason	10, 62
Buford, Elizabeth	36	Carter, Hailey	52	Clifford, Conor	61	Coutu, Maxwell	39
Bulluck, Andrew	12	Caruso, Alyson	16, 34, 52	Clifford, Ryan	60	Coville, Joshua	14
Bumbera, Nicole	27, 52	Casey, Erin	59	Clothier, Sedona	44	Coxen, Caitlin	48
Bunnell, Sean	59	Cassidy, Julia	47	Cloutier, Hannah	60	Craig, Catherine	39
Burbank, Krystal	9	Cawley, Brian	13	Clow, Michael	61	Cramton, Megan	16
Burgess, Kyana	34	Cayer, Jillian	11	Coakley, Emma	57	Cranford, James	46
Burgess, Spencer	58	Cedarholm, Ella	14	Cobb, Jarrod	24	Cratty, Andrew	61
Burhans, Jacob	59	Cederberg, Neil	37	Coco, Hannah	10, 62	Cressman, Colin	18
Burke, Aidan	59	Cerce, Alex	17	Coda, Matthew	58	Croteau, Maxwell	12
Burke, Hannah	27	Cesko, Jasmina	34, 52	Cohen, Nathaniel	58	Crowley, Daniel	12
Burnett, Caitlin	26, 30	Chambers-O'Bryan, Veronica	12, 31	Colabattisto, Nicholas	58	Crowley, Kelsey	27
Burt, Patrick	59	Champagne, Margaret	29	Cole, Davis	19	Crupi, Dylan	26
Burton, James	11	Champagne, Megan	23	Cole, Kevin	17	Cullen, Kailey	48
Bushnell, Ian	61	Chan, Melinda	39	Coleman, Mark	42	Cunningham, Ashley	46
Busi, James	42	Chancey, Danielle	53	Colizzi, Justin	62	Cunningham, Dylan	59
Butler, Alexis	58	Chandler, Elise	47	Collette, Ryan	16	Cunningham, Elizabeth	39
Butler, Austin	27	Chapman, Aaron	17	Colley, Robert	12	Cunningham, Matt	61
Byerly, Benjamin	8	Chapman, Keyton	62	Collier, Walter	29, 42	Curcio, Benjamin	10
Byerly, Meredith	23	Chapman, Shelby	17	Collins, Kelsey	47	Curley, James	47
Byron, Connor	18	Chaput, Derek	20, 22	Collins, Matthew	18	Curran, Hartley	62
Cabral, Clinton	44	Charest, Alexander	15	Collins, Thomas	17, 19	Curran, Zachary	42
Cahill, Dennis	18	Chartier, Steven	60	Compagna, Jacob	25	Currie, Mason	43
Calcagni, Logan	61	Chasse, Renee	53	Condict, Kevin	37	Curtin, Victoria	10, 62
Camara de la Fuente, Paula	45	Chauncey, Brooke	20, 21, 22	Cone, Kate	60	Curtis, Emily	61
Cameron, Ngan	9	Chausse, Austin	60	Conery, Michaella	29	Curtis, Quinn	30
Campbell, Brendan	60	Chen, Michelle	9	Conley, Mitchell	17	Czapkowski, David	10
Campbell, Riley	39	Cheng, Chao-Chi	13	Connelly, Andrew	60	Dalton, Kaylee	46
Campbell, Sara	59	Cherouvis, Aran	60	Connolly, Matthew	58	Daly, Ian	59
Campbell, Timothy	58	Cherouvis, Devon	48	Connors, Ralph	13	Dambach, Michael	60
Campos, Pedro	14	Chessie, Joseph	53	Conrad, Campbell	15	Damon, Moran	34
Cantara, Aaron	17	Chieffalo, Taylor	31	Conserva, Marianna	27	D'Andreti, Sadianne	28
Cantrill, Quinn	58	Chinman, Emma	26	Conyers, Jennifer	18	Danielson, Corina	53
Capo, Anthony	61	Chisholm, Luke	59	Cook, Emily	12	Dansreau, Abby	59
Cappiello, Benjamin	58	Chisholm, Max	58	Cook, Matthew	34	Dao, Tan	19
Cappuccio, Anthony	19	Chorlian, Andrew	12	Cooperman, Maxwell	61	Dapprich, Kendall	23, 34
Capraro, Jacob	52	Chouinard, Andre	17	Cornell, Isaiah	27, 34	Davis, Maggie	46
Caputo, Zachary	60	Chouinard, Madison	47	Correia, Jeffrey	46	Davis, Sean	46
Caraccio, Joseph	15	Christie, Allison	12	Cortez, Victoria	31	Davonski, Zachary	19
Card, Michael	61	Chun, Sophia	23	Costa, Adam	61	Dawe, Kelsie	59
Cardenas, Vanessa	34, 52	Ciccotelli, Anthony	18	Costigan, Matthew	47	Dean, Matthew	53
Cardon, Casey	45	Cinar, Siran	10, 62	Cota, Christopher	31, 33	Dearborn, Chace	43
Carey, Matthew	19	Cipollone, Joseph	60	Cote, Andrea	53	DeBueris, Mario	41
Carey, Patrick	57	Clancy, Laura	34	Cote, Connor	47	DeCristoforo, Bryan	59
Carignan, Aimee	40	Clapp, Madeline	44	Cote, Noah	10, 62	Deem, Olivia	58
Carne, Elizabeth	47	Clark, Andrew	17	Cote, Stephen	59	Degon, Dylan	59
Carr, Brigid	23	Clark, Harrison	46	Cotter, Annie	53	DeJager, Sydney	58
Carrano, Zachary	12	Clark, Joshua	13	Cotter, Patrick	57	DelGavio, Dominick	60
Carrigan, Jonathan	18	Clark, Maria	53	Cotter, Sean	27	DeMaio, Abraham	26
Carrigan, Ryan	46	Clarke, Brady	27, 32, 53	Coughlin, Christian	48	Demanche, Carly	60
Carroll, Joseph	41	Clarke, Emma	19	Coulter, Eliot	48	DeMarco, Joseph	58

Demeo, Robert	61	Doucette, Benjamin	47	England, Evan	26	Fitzgerald, Nicholas	6
Demetroulakos, Gianna	44	Dow, Colin	59	English, Megan	53	Flaherty, Amanda	46
Deplitch, Alexis	48	Dowd, Evan	16	Ensinger, Mitchell	53	Flanagan, Timothy	13
Derouin, Amber	7	Dowd, Killian	58	Enwright, Devyn	53	Flannery, Kelsey	31
Deshaies, Brian	42	Downey, John	62	Erickson, Grant	11	Flath, Kathleen	59
Desrochers, Owyn	58	Downie, Luke	58	Erickson, Molly	53	Fleckenstein, Jordan	37
DeStefano, Lauren	60	Dowst, Robert	16	Esposito, Eric	61	Flores, Rachael	10
Devereaux, Ciara	30, 34	Doyle, Christopher	45	Estabrook, Abigail	59	Floyd, Tia	37, 40
DeVries, Diane	53	Dragone, Justin	58	Estes, Olivia	47	Flynn, Lauren	33
Dexter, Nathaniel	47	Drew, Ethan	22	Evans, John	48	Flynn, SeanPatrick	62
Dezurick, Brian	44	Dreyer, Mitchell	62	Evans, Mackenzie	21	Fopiano, Ashley	42
Diamantopoulos, Justin	58	Driscoll, Charles	41	Exton, Christian	43	Fortuna, Olivia	54
Diamond, Sean	12	Driscoll, Jack	58	Faddoul, Emma	53	Fortune, Ashley	15
DiBenedetto-Paris, Dylan	17	Driscoll, Mark	62	Fagerson, Ladd-Patrick	58	Foster, Christopher	23
Dicker, Alexander	33	Drouin, Blake	61	Faiella, Daniel	6, 23	Foster, Zachary	42
Diggins, Noah	17	Drukker, Dow	26	Fakhoury, Zoya	11	Foulks, Jonah	47
DiGravio, Caroline	62	Dubois, Katherine	30, 38	Falco, Isabella	40	Fournier, Cameron	13
Dill, Dreyton	61	Dubovsky, Rebecca	47	Falvey, Jack	57	Fox, Claudia	58
Ding, Qinyuan	39	Ducharme, Jason	49	Farley, Jared	42	Francis, Jameela	16, 27, 34
Dinh, Dung Tri	43	Dudley, Katelyn	17	Farmer, Olivia	59	Francis, Nicholas	10
Dinsmoor, Adrianna	59	Duffy, Jacob	58	Farnam, Julianna	58	Franks, Victoria	37
Dion, Elizabeth	61	Duffy, Jonathan	47	Farnham, Faith	28	Frechette, Jessi	17
DiPallina, Matthew	13	Dumond, Lindsey	61	Farrell, Jack	38	Frechette, Katelyn	47
Dipersio, Grace	34	Dumont, Noah	16	Farrelly, Thomas	58	Freitas, Julie	62
DiRocco, Daniel	53	Dunn, Payson	19	Farrington, Kyle	61	Freitas, Matthew	61
DiStasio, Brett	61	Dunphy, Colleen	53	Fay, Liam	58	French, Logan	62
Distaso, Nicholas	48	Dunson, Morgan	12	Fay, Zachary	43	Freund, Julissa	11
Diver, Caitlin	59	Durant, Matthew	17	Fehr, Benjamin	16, 53	Friedman, Jeremiah	54
Dixon, Cameron	46	Durkin, Jill	38, 61	Fereydooni, Kimia	17	Friese, Crystina	28, 39
Djoleto, Victor	58	Dusseault, Bret	18	Fereydooni, Nadia	15	Froburg, Benjamin	18
Dodge, Jessica	40	Dutile, Joseph	11	Fernandes Wilson, Sara	11	Frost, Nathan	18
Dodier, Brett	62	Dwyer, Bryan	32	Ferrari, Jessica	58	Frye, Logan	22
Dogil, James	43	Dyac, Sarena	34	Ferreira, Kyle	58	Furrow, Justin	54
Doherty, Matthew	40	Dyke, Allison	7, 21	Ferreri, Madison	24	Furtado, Conner	60
Dombroski, Katherine	62	Dysart, Emily	59	Ferretti, Domenic	60	Fusco, Samantha	48
Domenico, John	28, 33, 50	Dziadowicz, Kathryn	11	Ferrier, Rowan	39	Gabor, Jacob	36
Donahue, Brendan	62	Eakman, Tialyn	16, 34, 52	Ferris, Melissa	40	Gage, Garrison	13
Donahue, Hannah	60	Easterbrook, Allison	34, 53	Ferullo, Matthew	12	Gagne, Lauren	15
Donahue, Jake	59	Easterling, Jacob	16	Ffrench, Ian	37	Gagnon, Julie	60
Donahue, Lauren	43	Eaton, Jace	30	Fiala, Justin	10	Gagnon, Lucas	17
Donahue, Ryan	30	Eaves, Olivia	21	Filion, Sarah	26, 53	Gagnon, Natalie	57
Donnelly, Christopher	61	Eddleman, Christina	12	Filipancic, Eliza	46	Gagnon, Olivia	61
Donovan, Brianna	25	Edminster, Kayla	59	Finigan, McKenzie	16, 34, 52	Gaidos, Ryan	18, 34
Donovan, Colleen	51, 53	Edwards, Zachary	60	Finnie, Patrick	59	Gale, Julian	23
Donovan, Haley	61	Ehrich, Valerie	43	Fintonis, Matthew	49	Gallagher, Jennifer	7, 23
Donovan, Maura	28, 53	Eisenbeis, Jeffrey	43	Fiore, Ashlee	53	Gallagher, Ryan	60
Dooley, Ryan	58	Ejdys, Madeleine	39	Fischer, Katelin	45	Gallagher, Ryen	30
Doolin, Danielle	42	Eldredge, Chase	17	Fischer, Timothy	54	Gallant Duffy, Hope	21
Dorrance, Anna	53	Ellison, Richard	41	Fischer, Travis	54	Gallo, Olivia	59
Dorrell, Jeremy	48	Ellsworth, Ryan	61	Fishbaugh, Austin	13	Galvan, Ezequiel	12
Dos Santos Koch, Maria Eduarda	59	Emory, Dominic	11	Fitter, Noah	15	Gamache, Jason	59

Gao, Hui	43	Grant, Jeffrey	16	Hannabury, Natalie	24	Hirsch, Briella	60
Garrity, Tess	60	Grasso, Genevieve	25	Hannafin, Jenna	34	Ho, Ryan	42
Gasperoni, Charles	9	Gravelle, Randi	20, 21, 22	Hansen, Philip	43	Hoerner, Brett	18
Gast, Marissa	34, 54	Graves, Emily	60	Hansler, Zachary	40	Hoes, Sierra	36
Gast, Sydney	61	Gravlin, Kimberly	33	Hanson, Christopher	59	Hoffman, Dena	54
Gaston, Erin	38	Gray, Alexis	39, 44	Hao, Xiangshu	40	Hoffman, Logan	48
Gaumont, Elijah	57	Gray, Jessica	14	Hardcastle, Justin	9	Hoggard, Demetrious	49
Gazizova, Daria	46	Green, Nathaniel	12	Harkins, Hannah	30	Holland, Aidan	61
Gazvoda, Garrison	62	Green, Stuart	60	Harrington, Conor	16	Holland, Andrew	12
Gazzara, Sebastian	17	Greer, Devon	49	Harrington, Erik	35	Holland, Duncan	40
Geib, Andrew	32	Gregg, Matthew	59	Harrington, Hayden	28	Holland, Rebecca	30
Geirsson, Sigurdur	27	Gregoire, Jase	10	Hart, Elizabeth	58	Holman, Connor	41
Gennard, Matthew	7	Gregory, Elena	25	Hart, Madailein	39	Holmes, David	16
Georges, Angelique	38	Greig, Alyssa	35	Hartmann, Troy	40	Holton, Jacob	17
Geraci, Johnny	57	Greig, Clayton	17	Hartnett, Megan	40	Hood-Hunt, Haley	21
Geraci, Luke	58	Grenier, Catherine	23	Hartnett, Richard	59	Hooker, Matthew	46
German, Zachary	59	Grenier, Michael	18	Harvey, George	20	Hooker, Thomas	59
Gero, Devin	13	Griffin, Cailee	28	Harvey, Sarah	63	Hope-Murray, Rona	42
Gesel, Francis	33, 50	Griffin, Kaitlin	62	Hasanic, Alen	21, 22	Horgan, Robert	60
Getman, Audrey	6	Groark, Ryan	60	Haskell, Cassie	36	Horiuchi, Hazuki	35, 50
Ghamo, Michael	43	Grone, Emily	44, 45	Haskins, Jessica	54	Horn, Jefferson	41
Ghattas, Celene	59	Gross, Katherine	25	Hastings, Ani	58	Horn, Nicholas	57
Ghilardi, Emma	21	Gross, Lauren	46	Hastings, Jackson	54	Horton, Kyle	18
Giallongo, Corey	48	Grossi, Paula	42	Hathorn, Tamara	53	Hosman, Andrew	17
Gialluca, Alexander	17	Gross-Santos, Miles	26	Haugen, Briggs	62	Hou, Yuting	46
Gianelly, Anthony	59	Grundy, Curtis	58	Hawk, Alexander	12	Householder, Isabella	19
Gibson, Paige	42	Guapisaca, Amada	31	Hawkins, Harrison	62	Houston, Caroline	9
Gielarowiec, Oktawia	34	Gudinas, Alana	19, 38	Hawkinson, Katharine	61	Howard, Angela	11
Gigliotti, Matthew	15	Guenthner, John	61	Hawtin, Alexandra	62	Howard, Christopher	16
Gilbert, Jake	42	Guerette, Felix	41	Hayes, Anna	54	Howard, Kaitlyn	54
Gilchrest, Kevin	42	Guerrieri, Harley	59	Hayes, Mitchell	59	Howard, Morgan	24
Giles, Ethan	7	Guilmette, Gordon	35	He, Yanyuan	17	Howe, Katelyn	62
Ginsburg, Samantha	54	Gurung, Ashim	62	Heaney, Katherine	23	Howe, Megan	47
Giovine, Eleonora	38	Guzman, Alicia	34	Hearn, Camden	58	Howland, Brooke	35, 54
Giri, Manish	48	Guzman, Olivia	27	Heath, Nicholas	10	Hoyle, Tyler	31, 40
Glinner, Delaney	11	Haber, Anna	9, 35, 51, 54	Heath, Richard	17	Hu, Ling	42
Gluck, Cynthia	28	Haddon, Natalie	57	Hebert, Stephanie	47	Huang, Wenting	43
Goddu, Andrew	17	Haley, Matthew	46	Heels, Sonja	32	Hudson, Parker	31
Gogolin, Ivy	58	Haley, Paul	40	Heil, Allison	12	Huffman, Jasmine	7, 21
Golden, Summer	21	Hall, Kameron	42, 44	Helle, Jacqueline	59	Hugo, Victor	27
Goldner, Kathryn	16	Hall, Lindsey	31	Helmanis, John	58	Hultgren, Andrew	44
Gomez, Santiago	20	Halloran, Jennifer	54	Hemond, Samuel	13	Humphreys, Benjamin	57
Gomez-Rivadeneira, Juan	35	Halper, Max	46	Henion, Molly	54	Hunter, Nhen	54
Gonin, Sebastian	43	Hamilton, Saylor	59	Hennas, Taylor	35	Hurd, Nicholas	15
Gonya, Madisen	48	Hamlin, Kelly	60	Henrich, Trent	61	Hurley, Mary	54
Gorman, Stephanie	47	Hamling, Sean	48	Henry, Benjamin	17	Huth, Jessica	58
Goulet, Michael	17	Hampton, Kasey	15	Henshaw, Kyle	11	Hyatt, Austin	6
Goyette, Rachel	6, 8	Hand, Caitrin	60	Hentz, Trevor	10	Iannaccone, River	18
Graca, Matthew	11	Haney, Connor	9, 62	Hernandez, Katherine	18	Iannazzi, Lauren	21
Graham, Daniel	61	Hanley, Grace	30	Hernandez, Paul	57	Idahosa, Nelson	32
Graikoski, William	61	Hanlon, Alicia	60	Herrick, Dean	30	Inglesi, Lexie	61

Intonti, Dean	18	Kaushik, Aashirya	20	Knight, Justin	62	Lane, Jason	17
Intveld, Ryan	17	Kazo, Tristan	18	Kocsis, Philip	49	Langer, John	17
Ireland, Thomas	19, 35	KC, Subhankar	21	Koirala, Durga	49	Langlais, Stephanie	24
Isdale, Hayley	59	Ke, Junjie	13	Kolberg, Ann-Marie	48	Lanternier, Samuel	11
Ishak, Madeline	9	Keating, Zachary	59	Koloski, Kelsey	47	Lantner, Jacob	18
Jablonski, Andrew	25	Keenan, Kiley	48	Korbani, Jason	44	Lanza, Andrew	12
Jacinto, Austin	10	Kehoe, Samuel	57	Korusiakova, Ivana	48	LaPierre, Christine	21, 22
Jackman, Kurt	11	Kelleher, Liam	59	Korzyniowski, Alex	13	Lapointe, Noah	61
Jacques, Courtney	60	Kelleher, Samantha	61	Kostandin, Andrew	17	LaPorte, Timothy	16
Jacques, Kelly	51	Kelley, Cameron	62	Kostandin, Jacob	12	LaPosta, Emma	57
Jagoda, Caleb	8	Kelley, Elisabeth	48	Kretkowski, Brianna	33	Larche, Jack	61
Jakubowicz, Scott	40, 41	Kelley, Shane	57	Kroh, Justin	20	Larkin, Bryn	58
Jameson, Lucas	19	Kelly, Andrew	42, 48	Krueger, Eric	17	LaRocca, Joseph	42
Jampana, Lakshmi	13	Kelly, Evan	28	Kruzel, Emilie	61	LaRosa, Katelyn	59
Jean, Richard	60	Kelly, Jack	58	Kuba, Matthew	17	LaRose, Giuliana	57
Jeffery, Ian	61	Kelly, Jack	58	Kula, Gregory	23	Larose, Nicholas	19
Jennings, Chantal	21	Kelly, Nathaniel	60	Kunin, Wesley	58	LaRose, Renee	11
Jereczek, Amalia	54	Kelly, Ryan	18	Kuthumi, Abrita	26	LaSala, Angelina	21
Jiang, Haoxuan	13	Kelly-Martin, Kara	8, 21, 38	Kuthumi, Ashit	11	LaSalle, Christoper	10, 63
Jin, Zefeng	43	Kempf, Jonathan	14	Kyer, Dylan	48	LaTourette, Nathan	12
Johnson, Kelsey	62	Kenney, Kayla	35, 50	LaBonte, Andrea	44	Latzanakis, Yanni	45
Johnson, Ryan	60	Kenney, Lucas	60	Lacey, Trevor	41, 43	Laughlin, Daniel	18
Johnson, Silas	17	Kenney, Stacy	35, 50	LaCreta, Nicholas	48	Lavallee, Jessica	43
Johnson, William	28	Kenny, Jack	48	LaCroix, Alexa	61	Lavoie, Matthew	47
Johnston, Ellie	59	Kenny, Sophie	28, 53	Lacy, Sonthaya	35	Lawlor, Aidan	58
Jones, Andrew	7	Kerr, Shaun	17	LaDue, Kyra	57	Lawrence, Jillian	62
Jones, Brianna	58	Keslar, Ethan	57	LaFreniere, Joelle	15	Lazzaroni, Joanna	59
Jones, Cory	57	Kessler, Philip	12	Lafreniere, Robert	54	Leary, Sean	60
Jones, Evan	19	Khan, Arsalan	46	LaGambina, Nicholas	12	LeBlanc, Ashley	35
Jones, Madison	12	Khan, Mahad	8	Lahey, Sean	17	Leblanc, Luca	23
Jones, Michael	61	Khan, Rayhan	58	Lahti, Elizabeth	18	Leclerc, Abigail	18, 54
Jones, Ross	38	Khan, Sara	46	Lake, Liam	58	LeClerc, Olivia	61
Journey, Sam	61	Khan, Sardar Adam Saeed	43, 44	Lake, Samantha	8	Lecour, Kyle	18
Jowders, Sabrina	46	Kheni, Vatsal	9	Lakhsal, Driss	18	Lee, Andrew	13
Jowett, Conor	58	Kibby, Drew	58	Lalonde, Richard	13	Lee, Christine	41
Judd, Tyler	12	Kiefaber, Kaylee	13	Lamarche, Matthew	60	Lee, Jessica	28, 50
Juffras, Madeline	15, 54	Kierstead, Bailey	57	Lambert, Hannah	28, 35	Lee, Tristan	17
Jusufovic, Selma	21	Kim, Yang-Woo	14	Lambert, Julia	58	Leech, Adam	60
Kabat, Delaney	7	Kimball-Marfongelli, Casey	32	Lambert, Matthew	41	Leef, Samantha	28, 55
Kabel, Amanda	51, 54	King, John	60	Lamers, Christian	16	Leek, Taela	33, 50
Kahr, Caroline	12	King, Julia	12	Lamont, Ryan	49	Lefebvre, Alex	11
Kaichen, Michael	43	King, Nicole	16	Lamontagne, Danielle	35	Leger, Erik	10
Kakouris, Niko	61	King, Ramsey	40	Lamparelli, Adrianna	46	Leger, Spencer	58
Kamalu, Nkechi	24	Kinsman, Nathaniel	28, 54	Lampe, Joseph	61	Lehoux, Allison	55
Kaminski, Alexa	11	Kipka, Astrid	6	Lamphier, Jonathan	17	Lehoux, Charles	40
Kandou, Valeria	12	Kirichok, Daniel	16	Lampman, Anna	11	Lemieux, Arianna	33
Kaptsan, Yaniv	60	Kirkpatrick, Reid	61	Landers, Drew	61	Lemieux, Jordan	59
Karpuram, Radheya	59	Kirkpatrick, Stewart	57	Landgraf, Jennah	32	Lemis, Dylan	59
Katerji, Jhad	15	Kittler, Alexander	18	Landry, Eleanor	59	Leno, Camden	60
Katwal, Ishan	13	Klein, Jessica	59	Landry, Tyler	17	Lenox-Pulgarin, Robert	28, 55
Kaufman, Zoe	43	Kloczkowski, Seth	59	Lane, Delana	35	Leone, Jonathan	60

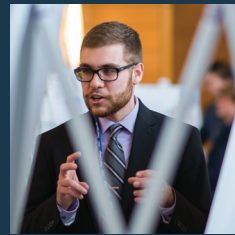
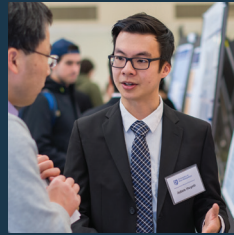
LePage, Andrew	16	MacDonald, Benjamin	19	Massie, Hans	43	McNally, Cameron	58
Lepkowski, Kyle	61	MacDonald, David	40	Masters, Andrew	18	McNeilly, Eric	37, 39
LeRay, Olivia	18	MacDonald, Grace	58	Mastrogiacono, Krista	27, 52	McParland, Evan	59
Leroux, Michael	12	MacEachern, Shane	61	Mathewson, Kellie	21	McPherson, Emily	49
Lester, Nicholas	58	MacHenry, Evan	41	Mathieu, Hannah	13	McWeeney, Matthew	10
Levin, Erica	10	Mackenzie, Sean	17	Matillano, Hannah	22, 25	Meagher, Thomas	57
Levine, Jack	10	MacKinnon, Alexander	14	Maurais, Elizabeth	21	Meditz, Daniel	12
Lewis, Jonathan	17	MacKinnon, Will	61	Maurer, Madeline	40	Meehan, Alexander	59
Li, Shan	18	MacLeod, Kelsey	57	May, Madeline	43	Meier, Mackenzie	9, 28, 55
Li, Zihe	47	MacPhee, Allison	38	Mayer, Sarah	17	Melnyk, Alexandra	14
Libby, Thomas	11	Madore, Victoria	35	Maynard, Claudia	21	Merchant, Andrew	48
Liberta, Elizabeth	62	Maggy, Jacob	42, 48	Maynard, Jacob	8	Mercier, Kyle	43, 47
Lichtenstein, Ian	26, 55	Maguire, Thomas	40	Mazzarelli, Sophia	48	Merheb, Christian	35
Lieb, Margo	62	Magwood, Kayla	62	McAlpine, Riley	40	Merrill, Benjamin	62
Lim, Jae Beom	12	Mahdavi, Ardalan	42	McAndrews, Molly	46	Messer, Matthew	61
Lima, Raissa	32	Maher, Alana	46	McAnney, Taylor	47	Metzger, Meriah	21
Lincoln, Rebecca	9	Mahoney, Daniel	61	McAuliffe, Michael	48	Meyer, Aidan	61
Lindsay, Taylor	35, 38	Mahoney, Natalie	43	McAvoy, Alec	21	Meyer, Andrew	61
Liska, Connor	25	Mahoney, Sarah	46	McAvoy, Kevin	59	Meyers, Abigail	59
Little, Alexis	63	Maillet, Alexis	35, 55	McCann, Patrick	28, 31	Micale, Andrew	62
Litzelman, Dalton	45	Mak, Carissa	11, 31	McCarthy, Michael	44, 48	Migneault, Sierra	46
Liu, Wenbin	44, 46	Makiver, Molly	48	McCartney, Jack	11	Mikulewicz, Christopher	55
Liu, Xiaoyan	14	Maksy, Madison	26	McCormack, Richard	13	Milbury, Rebecca	60
Liu, Zhenxiang	37	Malatesta, Jake	62	McCoy, Kristen	47	Miles, Ashley	57
Livingston, Taylor	46	Malecha, Nic	58	McDaniel, Timothy	49	Miles, Russell	48
Lo, Stephanie	14	Mallett, Mikayla	49	McDonald, Connor	60	Miller, Benjamin	15
Loc, Eric	18	Malone, Logan	40	McElhinney, Amber	55	Miller, Hannah	16
Locandro, Jillian	59	Maloof, Myles	62	McElroy, Andrew	8	Miller, Nicholas	28, 55
Loesch, Zachary	61	Manca, Hanna	61	McGahan, Robbie	58	Millette, Angela	12
Logan, William	45	Mann, Thurston	58	McGarry, Alexis	16	Mills, Connor	11
Loll, Jordan	19	Mannesto, Jennika	28, 50	McGill, Brenna	46	Mills, Emily	48
Lombardo, Sofia	27	Manning, Jake	10	McGinn, Alexander	35	Milne, John	42
Long, Jade	55	Mannix, Jacob	42	McGonagle, Colin	25, 33, 51	Milone, Nicole	7
Looney, Brianna	55	Mantegari, Quinn	57	McGonigle, Keanan	42	Milone, SiannaMarie	61
Lopez, Michael	10	Manthous, Aristedes	33	McGrath, Benjamin	38	Milstein, Hannah	40, 45
Lopiano, Isabel	59	Manz, Cole	59	McGrath, James	60	Minichiello, Gregory	60
Lord, Christopher	46	Marchiolo, Jon	59	McGrew, Grace	34	Mino, Andy	58
Loschiavo, Emma	47	Marchiolo, Jon	59	McGuire, Kellie	19	Minton, Matthew	57
LoStocco, Matthew	44	Marino-Babcock, Matthew	60	McGuirk, Brendan	13	Miraglia, Nicholas	59
Lou, Jingjing	9, 55	Markham, Hannah	21	Mcharo, Light	26	Mitchell, Brian	17
Lounsbury, Trevor	18	Marki, Russell	18, 34	McHenry, Philip	26	Mitchell, Peter	58
Lovering, Isabella	58	Markman, Alexa	47	McIlroy, Sarah	58	Mizan, Anuva	14
Low, Ian	48	Marshall, Cameron	61	McIlveen, Adam	40	Moheban, Michael	10, 38, 63
Lu, Qianru	12	Marshall, Madison	38	McKay, Brandi	38	Mokas, Nicholas	62
Lulka, Samantha	36, 44	Marston, Brooke	37	McKay, John	48	Moleski, Grace	45
Luo, Bowen	40	Martel, Tyler	47	McKelvey, Shannon	30	Molina, Oscar	61
Lupo, Anthony	10	Martin, Gillian	16	McKenney, Morgan	60	Molinario, Nicholas	62
Lynn, Grace	46	Martin, Heidi	35	McKibben, Paige	55	Moline, Sierra	53
Lyons, Christina	15, 52	Martindale, Claire	28, 50	McLamb, Mary	42	Mondor, Kali	32
Lyu, Ziwei	47	Martineau, Andrew	58	McLoud, Sean	18	Montanile, Christina	47
MacDonald, Benjamin	11	Masic, Ajna	21	McMahon, Devin	44, 48	Montgomery, Julie	48
		Masison, Allan	10				

Monziona, Isabella	47	Myers, Abigail	61	Okada, Takuma	8, 22	Parr, Ava	21
Moody, Alexander	12	Myers, Phoebe	62	O'Keefe, Emily	58	Patel, Anuj	40
Mooney, Brendan	45	Nadeau, Benjamin	16	O'Keefe, Ryan	43	Patel, Ravi	17
Mooney, Lily	55	Nadeau, Sarah	40	Olcott, Julianna	39	Paterson, Nicole	32
Moore, Savannah	62	Nanni, Christopher	60	O'Leary, Madelyn	36	Pateuk, Lizzy	61
Moore, William	11	Nardone, Jacob	16	Oliphant, Justin	17	Patno, Trey	36, 55
Moquin, Angela	61	Nason, Keith	17	Oliveira, Sabrina	22	Patrazza, Daniel	46
Morales-Galindo, Christopher	47	Ndi, Walters	49	Oliwa, Madisson	22	Patt, Benjamin	38
Moran, Laura	43	Nealon, Grace	60	Olsen, Jonathan	46	Paul, Anthony	61
Moreira, Alex	59	Needham, William	58	Olsmats, Eleonora	16	Paulsen, Ethan	13
Morency, John	43	Nees, Alexander	17	Olsson, Lisa	60	Pavarini, Tristan	62
Morenz, Emily	33, 50	Negrotti, Christopher	12	O'Malley, Elizabeth	31, 40, 45	Pearsall, Drew	59
Mores, Valerie	9	Neil, Kayli	55	O'Malley, Sadie	29	Peaslee, Anna	45
Morgan, Sarah	47	Nelson, Jonathan	15	Omoyeni, Osho	61	Pedersen, Kelly	7
Moriarty, Tyler	46	Nestor, Katie	59	O'Neil, Rory	24, 32	Pelletier, Marie-Jo	46
Morneau, Brianne	7	Newcomb, Sarah	46	O'Neill, Matthew	60	Peng, Yongyao	37
Morong, Tara	35	Newton, Curtis	28	Onerhime, Chloe	16	Penner, Eric	48
Morrill, Dominick	27	Newton, Isaiah	48	Onofrio, Andrew	58	Pepe, Samantha	36, 50
Morris, Matthew	9, 28, 55	Nguyen, Brian	61	Orcutt, Kendall	59	Pepin, Matthew	62
Morrison, Matthew	58	Nguyen, Brian	16	Orogi, Mehdi	60	Peraro, Catherine	28
Morrissey, Colin	46	Nguyen, Jason	12	O'Rourke, Thomas	11	Perham, Derrek	19
Morrissey, Liam	62	Nguyen, Kenny	28	Osborne, Kristiana	31	Perkins, Cameron	30
Morrow, Kimberly	8	Nguyen, Liem	18	Otis, Samuel	14	Perkins, Thomas	18
Moschella, Gavin	11	Nguyen, Mai Thanh	45	Otterbeck, Chloe	58	Perna, Julia	43, 46
Moschitta, Dianne	21, 22	Nguyen, Ronny	19	Otto, Brian	14	Perron, Adrienne	39
Moss, Rachael	25	Nguyen, Stufen	11	Ouellette, Jared	61	Perry, Matthew	11
Mouikis, Gerasimos	42	Nhim, DNhim	61	Owens, Jenna	43, 47	Perry, Matthew	48
Moussalli, Michael	59	Ni, Haoming	17	Page, Matthias	16	Perry, Melissa	55
Moynihan, Mary	61	Nichols, Julia	59	Pagliuca, Monica	20	Perryman, Clarice	15, 54
Mroz, Mateusz	17	Nielsen, Samuel	41, 48	Pagounes, Iraklis	60	Pesa, Ivona	40
Mudrick, Christopher	61	Niles, Jack	41, 43	Paisner, Erica	48	Petersen, Sean	17
Mueller, Luke	11	Nitschelm, Charlie	17	Paiva, Marcello	12	Peterson, Bridget	28
Mulhare, Jack	58	Niven, Samantha	35	Palin, Abigail	35, 55	Peterson, Jenna	61
Mullaney, Conor	10	Noble, Olivia	23	Palma, Justin	49	Peterson, Michelle	14
Mullen, Alexander	15	Noffsinger, Kasey	43, 48	Palumbo, Victoria	58	Petry, Jocelyn	43
Mullen, Eliza	63	Nordstrom, Hannah	29, 33	Panella, Stephen	42, 45	Petry, Nicole	60
Muller, Lawrence	11	Norton, Jack	61	Papa, Nikolas	60	Pettine, Justin	59
Munick, Georgi	58	Nosiglia, Leanne	60	Papageorge, William	61	Phan, Hien	45
Munson, Eric	48	Novotny, Gregory	10	Papakonstantinou, Georgio	39	Phelps, Sarah	29
Murdock, Shannon	35, 50	Nugent, Jenifer	41	Papinsick, Annelise	8	Philbrick, Andrew	58
Murphy, Christopher	45	Nurse, Amber	55	Pappas, Nicholas	18	Philibert, Rebecca	29
Murphy, Kayla	59	Oakes, Dylan	58	Paquette, Justin	15	Phillips, Courtney	23
Murphy, Kevin	48	Oberly, Morgan	59	Paradis, Jeffrey	13	Phillips, Jordan	58
Murphy, Meghan	39	O'Brien, Mary	20	Pare, Hannah	55	Phillips, Margaret	15, 56
Murphy, Michael	43	O'Connell, Jared	20	Parilla, Jacob	58	Philpott, Elizabeth	12
Murphy, Shane	61	O'Connor, Elizabeth	8, 30, 32	Parker, Hailey	58	Phinney, Joseph	61
Murray, Lauryn	60	O'del, Jenna	55	Parker, Kailey	30	Piacquad, Henry	61
Murray, Matthew	48	Odierno, Alfred	14	Parliman, Alexis	57	Piatt, Samantha	13
Murray, Timothy	10	O'Driscoll, Rory	60	Parnigoni, Amanda	43, 44	Picard, Alyssa	48
Musgrave, Amy	59	Oglesby, Ethan	58	Paroda, Maxwell	46	Pierce, Eryn	57
Muska, Nathan	12	Ohanasian, Justice	23	Parodi, Griffin	12	Pierre-Louis, Devon	58

Pierro, Joseph	41	Puopolo, Dominic	18	Richard-Snipes, Robert	8	Ryall, Morgan	59
Pierson, Jackson	60	Puterbaugh, Ryan	9, 29, 56	Richardson, Kevin	20	Ryan, Ashley	61
Pierson, Jessica	61	Putnam, Timothy	30, 43	Richter, Jacqueline	16	Rzasa, Kara	36, 56
Piessens, Michael	16	Putsch, Cassandra	43	Riehs, Liam	36	Sabatino, William	60
Pilgrim, Chloe	29, 51	Qi, Wenyan	14	Riley, Christopher	31	Sabbia, Marisa	59
Pimental, Alexis	59	Quigley, Madeline	28, 53	Riley, Hannah	62	Saccente, Joseph	12
Pimental, Shannen	12	Quillin, Katherine	17	Rinkus, Zachary	58	Sacher, Charles	59
Pimentel, Alexander	29, 36	Quimby, Shane	41	Rivet, Brian	48	Sack, Devan	16
Pineau, Daniel	40	Quinlan, Austin	47	Robb, Christopher	19	Sagliano, Julianna	6, 23
Piper, Joshua	13	Quinlan, Wyatt	57	Roberge, Emma	16	Sakelaris, Jon	40
Pirone, Joseph	49	Quinn, Brian	58	Roberto, Armando	59	Sallee, Maxwell	62
Pituck, Clayton	31	Quinn, Kevin	59	Robertson, Haley	57	Salley, Nikkilette	42
Planchet, Richard	41	Quinn, Ryan	59	Robertson, Kagen	61	Samora, Brooke	59
Planchet, Stephanie	22	Radosavljevic, Adriana	56	Robidoux, Lisa	57	Sanborn, Dylan	32
Plante, Fiona	61	Radzelovage, Matthew	16	Robinson, Kevin	12	Sandstrom, Tomas	17
Ploss, Christopher	57	Rafal, Marisa	36	Robinson, Shania	61	Sanechiaro, Peri	26
Plourde, Andrea	11	Raffi, Nicholas	12	Robison, Noah	43	Santangelo, Matthew	37
Plourde, Jennifer	26	Rainville, Brian	17	Roderick, Tiffany	60	Santarosa, Annah	59
Poirier, Casey	29	Raleigh, Robert	61	Rodolosi, Vanessa	58	Santibanex Ocampo, Blanca	22
Polay, Max	48	Rancourt, Shafer	60	Rogers, Madison	59	Santos Regaldo, Walkania	36, 56, 63
Pollack, Benjamin	42, 46	Randall, Richard	16	Romano, Giana	46	Sanville, Chase	12
Pollet, Ethan	61	Randle, Justin	29	Ronca, Joseph	8	Sargent, Drucilla	31
Pontbriand, Paul	11	Rascoe, Kathryn	61	Rook, Jonah	58	Saucier, Steven	42
Pope, Spencer	43, 45	Raudat, Hailey	32	Rooney, Spencer	59	Saunders, William	48
Popielarczyk, Alicia	26	Ravenelle, Luc	43	Rosa, Zachary	11	Saveliev, Alexander	12
Porter, Brandon	13	Ray, Emily	56	Rosatone, Sarah	29	Sawosik, Benjamin	12
Porter, Eric	13	Ray, Sean	48	Rose, Douglas	41, 43	Scanlon, Cathryn	57
Porter, Keegan	41	Rayment, Kyle	60	Rose, Dustin	58	Scanlon, Jonathan	12
Post, Jacob	60	Razzetti, Scott	36	Rose, Dylan	39	Scannell, Katelynn	42, 46
Potere, Jeff	61	Readdean, Timothy	30	Roselund, Jessica	48	Scarpino, Jacob	17
Potter, Davis	46	Ready, Zachary	12	Rosenbaum, Caitlin	36	Scata, Carly	36
Pottle, Nick	60	Reagan, Matthew	15	Rosenbaum, Mattson	11	Schafer, Evan	56
Potvin, Jack	61	Reardon, Christian	41	Ross, Olivia	48	Scheib, Zachery	57
Poublon, Eric	61	Reavey, Luke	48	Rossi, Eric	17	Schlichtmann, Zak	25
Poulin, Patrick	36	Redmond, Mackenzie	60	Rote, Wunderly	18	Schliemann, Eric	17
Pouliot, Brennan	32	Reed, Addison	29	Rothbard, Adena	61	Schlim, John	13
Powers, Madelinne	22	Reenstierna, Tristan	60	Rothwell, Victoria	61	Schnare, Lucas	62
Powers, Steven	47	Regan, Alyssa	60	Round, Ashley	58	Schnobrich, Steven	48
Prasai, Naina	20	Reiff, Hailey	61	Rousseau, Sydney	45	Schoeller, Lauren	29
Pratt, Connor	12	Reilly, Kimberly	33, 50	Roy, Ashley	16	Schreiber, Jack	16
Price, Andrea	58	Remick, Jacob	17	Royer, Brittany	25	Schricker, Tuller	17
Prine, Liliana	59	Retrum, Michael	40	Roylance, Joseph	17	Schultz, Bryce	43
Prizio, Marissa	36	Rewucki, Johanna	38	Rubin, Derek	11	Schumacher, Robert	11
Proborowski, Hayden	24, 32	Reynolds, Jared	59	Rudaz, William	60	Schwartz, Evan	62
Provencal, Krysten	43, 47	Reynolds, Kaleigh	58	Rudolph, James	24	Schwartz, Melissa	46
Provost, Tyler	46	Ribbans, Trevor	11	Rumford, Nathan	41	Scott, Jeffrey	13
Prusik, Austin	13	Riccio, Dominick	59	Russell, Timothy	17	Scott, Kali	56
Prusik, Kayla	58	Rice, Sydney	32	Russo, Jack	42	Scott, Lily	61
Puchalski, Austin	11	Rich, Emily	43	Russo, James	11	Sedlacek, Rachel	49
Puda, Christopher	12	Rich, Matthew	56	Russo, Sarah	38	Segal, Sam	14
Puntin, Haley	12, 30	Richard, Nate	62	Rutledge, Cole	8	Selmer, David	48

Senecal, Brennan	56	Skinner, Samuel	11	St. Jacques, Sophia	59	Taatjes, Cameron	62
Serpa, Sean	14	Skowfoe, Emily	16	Stadnicki, Benjamin	17	Tadepalli, Meghana	7, 21, 22
Serven, Patrick	12	Slade, Cierra	58	Stahl, Connor	40	Talari, Arias	20
Settembrino, Julie	11	Slaybe, Anthony	22	Standish, John	57	Tall, Amadou	14
Sexton, Jessica	25, 51	Slight, Victoria	30, 39	Starkey, Samantha	24	Tamposi, Anthony	48
Shaker, Jacob	17	Sliz, Kayla	29	Stebbins, Matthew	38	Tarantino, Christine	47
Shalek, Benjamin	9	Sloane, Kevin	43	Steimke, Nathan	14	Tarczon, Alex	62
Shan, Pengju	13	Slobin, Samuel	61	Steinborn, Erik	11	Tardiff, Samuel	53
Shao, Linwei	42	Smath, Eric	12	Steinhauser, Joseph	18	Taub, Samuel	58
Shapovalov, Arseniy	26, 47	Smith, Anna	12	Steven, Emile	47	Tavalone, James	59
Shaughnessy, Patrick	61	Smith, Brennan	17	Stevenson, Kenley	37	Taylor, Devan	48
Shaw, Evan	59	Smith, Brett	14	Stewart, Hannah	54	Teevens, Michael	60
Shaw, Kendrick	61	Smith, Brianna	13	Stewart, John	61	Teixeira, Jacob	61
Shaw, Kyle	48	Smith, Connor	40	Stewart, Lillian	18	Telles, Ivey	56
Shea, Casey	30	Smith, Diego	62	Stilson, Wesley	62	Terenzoni, Mikayla	46
Shea, Kevin	17	Smith, Emily	26	Stoehrer, Abigail	60	Tessier, William	39
Sheikh, Hanzla	48	Smith, Grace	31	Stone, Riley	47	Tetreault, Nathan	17
Sheikhabdou, Christopher	37	Smith, Isabelle	58	Streeter, Collin	46	Thayer, Aidan	16
Sheldon, Daniel	30	Smith, Kathleen	30	Strobeck, Kerri	52	Theoharidis, Lucas	11
Shepard, Samuel	58	Smith, Morgan	57	Stromski, Ian	60	Thibeault, Aaron	11
Shepherd, Jemina	29, 45	Smith, Ruth	41	Stroshine, Collin	17	Thibodeau, Merredith	59
Sheridan, Abigail	54	Smith, Ryan	59	Stryke, Rachel	62	Thomas, Matthew	60
Sherkanowski, Emili	47	Smith, Ty	14	Studley, Troy	61	Thompson, Brigitte	60
Sherkanowski, Erik	48	Smith, Zachary	11	Sturtz, James	59	Thompson, James	33
Sherlock, Matthew	47	Smugereski, James	45	Sturzo, Casey	29, 56	Thompson, Michael	56
Shipley, Nathan	10, 63	Smyth, Adam	14	Styskal, David	13	Thompson, Tyler	19
Shooshanian, Daniel	59	Snedegar, Nicholas	46	Sudarto, Andreas	13	Thomson, Rachel	48
Short, Aidan	11	Snow, Carter	58	Sukkar, Leith	60	Thorburn, Shawn	60
Shoulkin, Kyle	61	Snow, Jonathan	16	Sullivan, Andrew	56	Thurston, David	57
Shubitidze, Tornike	19	Sock, Jordan	40	Sullivan, Austin	24	Tiller, Matthew	57
Shumski, Andrew	59	Sodders, Nathaniel	60	Sullivan, Brendan	58	Tilton, Darian	34, 52
Sidiropoulos, Kristina	45	Song, Wonjune	40	Sullivan, Courtney	47	Tilton, Laura	36
Siegal, Samuel	59	Soni, Vishnu	21	Sullivan, Emily	56	Timpone, Austin	47
Siegel, Hannah	56	Sott, Gabrielle	60	Sullivan, John	9	Tisevich, Rachel	48
Sievwright, Thomas	47	Soucy, Brook	57	Sullivan, Julius	37	Titus, Katherine	39
Silck, Briana	25	Soucy, Lillian	16	Sullivan, Madison	58	Tjen, Theresia	13
Silk, Kevin	37	Soule, Christina	60	Sullivan, Mary	60	Tocco, Audrey	51
Silva, Christian	37	Soule, Emily	62	Sullivan, Owen	57	Todd, Delaney	14
Silva, Evan	18	Sovak, Kellie	43, 48	Sullivan, Spencer	17	Tognazzi, Alexander	63
Silveira, Dylan	15	Spada, Nathaniel	56	Summering, Amber	22	Toland, Danielle	26
Silverio, Dominic	57	Spagnuolo, Kyle	57	Sundling, Liam	11	Tomaso, Jacob	59
Silverwood, Tyler	56	Sparks, Alexander	17	Suozzo, Zachary	59	Torpey, Mark	18
Simoes Junior, Milto	22	Spaulding, Rachel	61	Sutherland, Emma	12	Tosi, Luca	59
Simone, Allison	45	Spear, Colleen	61	Swanson, Alison	19	Tosi, Will	60
Simoneau, Heidi	29, 36, 56	Spears, Sherman	25	Sweet, Owen	10	Toulouse, Chad	49
Simpson, Hailley	60	Spelman, Ryan	36, 56	Symonds, Cody	51, 56	Toumpas, Ari	25
Simpson, Stephen	58	Spence, Cole	60	Syvertsen, Peder	62	Towey, Nicolas	61
Sims, Alexis	53	Spiller, Nicholas	18	Szabo, Justin	48	Townshend, Charlotte	60
Sirmaian, Maxim	60	Spino, Erica	32	Szczepanowski, Anya	60	Toy-Caron, Nicole	8
Skaff, Robert	22	Sprague, Colin	61	Szubinski, Emily	60	Traeger, Isabella	61
Skillings, Alden	27, 33	Sprague, Devon	40	Szymanski, Carly	47	Tran, Thi Ngoc Diep	45

Traore, Mariam	54	Vivian, Michaela	26	Wichert, John	12	Yee, Kaitlyn	60
Trevisani, Justin	59	Vogler, Evan	60	Widi, Cenrara	43	Yee, Rachel	9
Trinh, Jimmy	17	Volz, David	59	Wieck, Karl	9	Yelle, Nicole	62
Trubac, Kathryn	19	Wade, Margaret	62	Wiewel, Kristin	41	Yennaco, Jake	48
Tsao, Austin	13	Waldron, Liam	41	Wigmore, Riley	57	Yin, Chao	13
Tuccinardi, Gia	40	Walker, Brittney	57	Wilcox, Emily	15	Yin, Zhaokai	18
Tuleja, Jake	60	Walker, David	57	Wildes, Austin	48	Yost, Dean	9
Tully, Benjamin	43	Walker, Jeremy	13	Wildes, Sarah	36, 50	Yost, James	19
Tumeinski, Ethan	59	Wallace, Austin	61	Wiles, Spencer	7	Yotnakparian, Logan	18
Tumidajski, Joseph	9	Wallace, Brittney	47	Wilhelmy, Dan	58	Young, Abbigail	16
Turek, Bonnie	15, 56	Wallace, Jonathan	18	Wilinkiewicz, Aimee	11	Young, Madeline	57
Turgeon, Emma	12	Wallace, Joshua	17	Wilkins, Emma	59	Young, Spencer	45
Turner, Cadence	61	Waller, Noah	29	Wilkins, Quinn	11	Young, Teigue	25, 50
Twarog, Nathan	62	Walsh, Clio	23, 34	Wilkinson, Sarah	62	Zadavec, Erika	42, 47
Tweed, Brandon	59	Walsh, Elizabeth	49	Williams, Alexander	21	Zaiter, Dania	29, 57
Twitcheil, Stephen	46	Walsh, Emma	43	Williams, Elijah	10	Zale, Eric	22
Tyler, Samantha	59	Walsh, Jessica	61	Williams, Ryan	19	Zampini, Michael	15, 54, 57
Ulrich, William	43	Walsh, Maddison	46	Williamson, Nicole	41, 57	Zaya, Riley	58
Ur, Michela	59	Walsh, Mikaila	48	Williamson, Reed	37	Zeleny, Jordan	14
Urbaneck, Marissa	48	Wamsley, Ethan	15	Wilson, Alycia	50	Zeng, Luxing	15
Vaillancourt, Schuyler	33, 45	Ward, Benjamin	13	Wilson, Cassidy	15	Zeng, Weicong	24, 31
Valliere, Ashley	46	Ward, John	12	Wilson, Matthew	59	Zercher, Jacob	16
Valluzzi, Caroline	60	Ware, Nicholas	43	Wilson, Megan	11	Zhang, Duyu	48
Van Bourgondien, Megan	42, 46	Warouw, Kemal	57	Winter, Michael	11	Zhang, Hongjie	17
Van De Water, Avery	25, 36, 51, 56	Warren, Kaitlin	46	Winter, Tiffany	53	Zhang, Yining	36, 37
Vandenberg, Emelie	9	Waterman, Audrey	30	Wirth, Brittnee	57	Zhou, Mi	11
Varian, Rosalee	60	Waters, Charles	14	Wirth, Hannah	57	Zhu, Tianshu	25
Varney, Kassandra	29	Watopa, Sabattony	11	Wohlgemuth, Adam	11	Zizza, Samantha	46
Vasilevsky, Daniel	15	Watson, Nicholas	46	Wolohan, Patrick	61	Zubricki, Amanda	60
Vazquez, Cristina	22	Weatherbee, Craig	7	Wong, Hody	42	Zuidema, Steven	42
Veilleux, Bailey	57	Weaver, Marinda	33	Wood, Madison	15	Zupo, Emma	59
Velasquez, Jaylene	29	Weir, Dylan	60	Woodman, Nicholas	12		
Velte, Nicholas	18	Weldon, Liam	37	Woods, Joshua	57		
Ventresco, David	13	Wentworth, Katelyn	10, 63	Woodward, Luke	59		
Vercellone, Chiara	49	Wentzel, Austin	62	Work, Alexandra	40, 45		
Verfaillie, Megan	11	Werner, Jacob	24	Workman, Christian	16		
Verrier, Ryan	60	Wesche, Teddy	57	Worthington, Paul	10		
Vettese, Jason	13	Westfall, Nicole	34, 51	Wrath, Kylee	29		
Vey, John	20	Wetmore, Andrew	42	Wright, David	19		
Viall, Olivia	57	Wheeler, Dylan	13, 23, 29, 32	Wu, Yi	40		
Vicino, Paul	47	Wheeler, Nicholas	17	Xue, Xiaohang	15		
Vient, Ethan	41	Wheeler, Tanner	41	Yabroud, Elise	62		
Vigeant, Sean	36, 38, 57	Whelan, Matthew	61	Yacco, Marisa	15, 30		
Vijay, Shreya	7, 8	White, Charles	46	Yadav, Shreya	58		
Vijay, Udhay	12	White, Mariah	48	Yang, Andy	61		
Villanti, Amanda	46	White, Shamus	46	Yang, Qiqi	25		
Vincent, Caitlyn	57	White, Shelby	25	Yardumian, Max	39		
Vincenzi, Cole	61	White, William	58	Yates, Cassidy	30		
Vinskus, Lilia	30, 38	Whitehead, Nathan	22	Yatim, Brahim	61		
Virgin, Myles	18	Whitehead, Timothy	39	Yatzus, Alexander	14		
Visich, Ryan	57	Whittier, Bryan	7	Yeaton, Zachary	61		



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