“Being able to turn an idea into an opportunity has been both a challenge and a learning experience that I will remember forever.”

“It was great to share my hard work with my parents and show them, in a professional manner, what I have strived to accomplish this past year.”

“I became part of a prestigious academic community and that was exciting.”
Welcome to participants and attendees

Welcome to the 13th annual celebration of research and discovery at the University of New Hampshire. The Undergraduate Research Conference (URC) highlights the outstanding research, scholarship, and creative activities of our students and their faculty mentors. We take pride in—and learn from—their accomplishments.

What began as a University-wide effort in the spring of 2000 has blossomed into an annual tradition that puts UNH students in the spotlight. Our conference is now one of the largest and most diverse in the nation, and this year marks another record in participation. More than 1,100 students will present their findings at events across both the Durham and Manchester campuses, and represent academic achievements in every college and school.

This extraordinary learning experience helps students build the knowledge, skills, and confidence to pursue graduate studies and meaningful careers. The URC is a shining example of our students’ success and discovery-based education at UNH.

Whether your visit includes a poster session, a formal presentation, an art exhibit, or a creative demonstration, we are confident that you will be impressed with the participants’ knowledge and understanding. Thank you for your interest in, and support of, our remarkable students.

Sincerely,

Mark W. Huddleston, President

John D. Aber, Provost
Welcome to our springtime celebration of academic success and achievement at the University of New Hampshire. We take special pride in the efforts of our students and in the dedication of the faculty who mentor and guide them. A hallmark of a UNH education is the opportunity to engage in hands-on research with faculty scholars.

This year, more than 1,100 UNH students mentored by more than 300 UNH faculty members will present their research and scholarship. Presentations will represent many disciplines as well as multidisciplinary learning communities where empirical research, engaged scholarship, and creative scholarship result.

Our undergraduate students also have this unique opportunity to gain essential skills to help them pursue graduate study, learn how to collaborate across disciplines, pursue meaningful careers, and make a difference in the world. Faculty members enjoy mentoring students, and report that working with students strengthens their teaching and research.

One of our goals at UNH is to provide a unique opportunity for undergraduate students to inquire, learn, discover, and engage. For many, the URC is their first opportunity to showcase their work to a much broader audience. They 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. This faculty-student partnership and the varied audiences to whom they present are vital to enriching and bringing new learning to life, which often leads to new areas of inquiry.

Please join us in thanking each student presenter and every faculty mentor who is making this great event possible. We encourage you to read the posters, listen to the presentations, and ask questions of our students. We are confident you will be impressed with what you learn and we look forward to your active engagement with the University of New Hampshire!

Julie E. Williams, Senior Vice Provost
Engagement and Academic Outreach

Peter F. Masucci, Chair, URC Planning Committee
**URC 2012 Contents**

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All events are free and open to the public.

Accessibility accommodation requests may be directed to Lynne Cooper at (603) 862-1997.
Friday, April 13
6–8 p.m.
2012 Senior B.A. & B.F.A. Exhibition and M.F.A. Thesis Exhibition and Preview Reception
Paul Creative Arts Center (6)
Museum of Art
(Exhibition runs April 13–May 20, 2012)

Monday & Tuesday, April 16–17
Monday 5–7 p.m.
Graduate Research Conference (GRC)
Poster Presentations
Huddleston Hall Ballroom (1)
Tuesday 9 a.m.–3 p.m.
Graduate Research Conference (GRC)
Oral Presentations
Memorial Union Building (3)

Friday & Saturday, April 20–21
Friday, 6:30–7:30 p.m.
McNair Scholars Program 20th Anniversary Research Symposium
Poster Presentations
Memorial Union Building (3)
Saturday, 9:30 a.m.–4:30 p.m.
McNair Scholars Program 20th Anniversary Research Symposium
Oral Presentations
Memorial Union Building (3)

Monday, April 23
10:30 a.m.–Noon
Seacoast Reads Exhibition
Thompson School Community Leadership Program
UNH Office of Community Service
Student Partnerships
Memorial Union Building (3)
Rooms 330/332 and 334/336

Tuesday, April 24
10 a.m.–2 p.m.
UNH Manchester Undergraduate Research Conference
Oral Presentations
UNHM Auditorium

Wednesday, April 25
9 a.m.–6 p.m.
Whittier School of Business and Economics Undergraduate Research Conference
Memorial Union Building (3)

Noon–2 p.m.
The Naked Arts—Creativity Exposed!
(Act I)
Paul Creative Arts Center (6)
Museum of Art

Noon–2 p.m.
Whittier School of Business and Economics University-wide
Paul J. Holloway Prize
Innovation-to-Market Competition
Charles & Miriam Nelson Poster Round
Memorial Union Building (3)

2–5 p.m.
Interdisciplinary Science and Engineering (ISE) Symposium
Morse Hall and Kingsbury Hall (8 & 9)

3:30–6 p.m.
UNH Manchester Undergraduate Research Conference
Poster Presentations
UNH Manchester, Auditorium

Thursday, April 26
10 a.m.–1 p.m.
UNH Manchester Undergraduate Research Conference
Cinema Arts Day
UNH Manchester, Auditorium

12:30–2 p.m.
The Naked Arts—Creativity Exposed!
(Act II)
Paul Creative Arts Center (6)
Hennessy Theatre

12:30–2 p.m.
History Department Undergraduate Presentations
Memorial Union Building
Rooms 338/340 and 302 (3)

Friday, April 27
8 a.m.–Noon
UNH Manchester Undergraduate Research Conference Engineering Technology Senior Project Presentations
UNH Manchester, Auditorium

9–9:30 a.m.
Parents Association Undergraduate Research Symposium Breakfast
Memorial Union Building
Granite State Room (3)

9:30 a.m.–3 p.m.
Parents Association Undergraduate Research Symposium
Poster and Oral Presentations
Memorial Union Building (3)
Granite State Room and Assigned Rooms

12:15–1 p.m.
The Naked Arts—Creativity Exposed!
(Act III)
Memorial Union Building (3)
Strafford Room

1:30–4 p.m.
College of Health and Human Services
Grimes Undergraduate Research Competition
Petree Hall, Room G-10 (10)

1:30–5 p.m.
Honors English Undergraduate Research Conference
Hamilton Smith Hall (4)
English Department

3:30–5 p.m.
Hamel Center for Undergraduate Research 25th Anniversary Reception
Cole Hall (11)

4–8:30 p.m.
Philosophy Department
Undergraduate Research Conference
Mulkland Hall, Room G17 (5)

8 p.m.
Student Composers’ Concert
Paul Creative Arts Center (6)
Bratton Recital Hall

Saturday, April 28
7:45 a.m.–2 p.m.
21st Annual College of Life Sciences and Agriculture (COLSA)
Undergraduate Research Conference
Huddleston Hall Ballroom (1) and Holloway Commons (2)

Friday, May 4
3–4 p.m.
Chemistry Department
Poster Exhibition
Parsons Hall, Iddles Lobby (7)

Wednesday, May 9
12:30–6 p.m.
Whittier School of Business and Economics University-wide
Paul J. Holloway Prize
Innovation-to-Market Championship Round
Holloway Commons (2)
Squamscott Room
2012 Senior B.A., B.F.A., & M.F.A. Exhibition and Preview Reception

Friday, April 13
6–8 p.m.
Paul Creative Arts Center
Museum of Art

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

Bachelor of Fine Arts degree candidates:

- Tara Appleton
  Fine Arts, painting
  Adviser: Grant Drumheller

- Kathryn Archambault
  Fine Arts, painting
  Adviser: Ben Cariens

- Monica Bancroft
  Fine Arts, painting & drawing
  Adviser: Scott Schnepf

- Margo Belisle
  Fine Arts, sculpture
  Adviser: Ben Cariens

- Katherine Blanchette
  Fine Arts, printmaking & drawing
  Adviser: Jennifer Moses

- Annie Grace Couvillion
  Fine Arts, photography
  Adviser: Ben Cariens

- Taylor Maroney
  Fine Arts, painting and drawing
  Adviser: Grant Drumheller

- Sarah Nelson
  Fine Arts, painting and drawing
  Adviser: Ben Cariens

Master of Fine Arts in painting degree candidates:

- Clara Coleman
  Advisers: Brian Chu, Grant Drumheller

- Lennie Mullaney

- Jesse James Thomas

- Liz Wilson

Bachelor of Art degree candidates from UNH Art and Art History Department, whose work will also be on view:

- Leah Akey
  Studio Arts, painting
  Adviser: Craig Hood

- Tyler Beaudoin
  Studio Arts, woodworking
  Adviser: Leah Woods

- Amy Bergeron
  Studio Arts, photography
  Adviser: Julee Holcombe

- Erica Cole
  Studio Arts, photography
  Adviser: Julee Holcombe

- Korrena Cowing
  Studio Arts, painting
  Adviser: Jennifer Moses

- Carly DelEeuw
  Studio Arts, photography
  Adviser: Jennifer Moses

- Samantha Freese
  Studio Arts, photography
  Adviser: Michael McConnell

- Samantha McCarthy
  Studio Arts, ceramics
  Adviser: Scott Schnepf

- Kathryn Michalovic
  Studio Arts, photography
  Adviser: Leah Woods

- Jacqueline Murphy
  Studio Arts, painting
  Adviser: Brian Chu

- Brynn Potter
  Studio Arts, painting
  Adviser: Jennifer Moses

Carleen Rickarby
Studio Arts, photography
Adviser: Michael McConnell

Alexia Valhouli
Studio Arts, ceramics
Adviser: Brian Chu

Graduate Research Conference (GRC)

Poster Presentations

Monday, April 16
5–7 p.m.
Huddleston Hall Ballroom

The Graduate Research Conference (GRC) is devoted to celebrating the high quality research being conducted by graduate students at UNH and is designed to showcase research from graduate students in all disciplines. Participants interact with other graduate students and faculty from across campus. Attending the GRC affords the entire university community the opportunity to participate in the graduate education experience.

Oral Presentations

Tuesday, April 17
9 a.m.–3 p.m.
Memorial Union Building

The Graduate Research Conference (GRC) is devoted to celebrating the high quality research being conducted by graduate students at UNH and is designed to showcase research from graduate students in all disciplines. Participants interact with other graduate students and faculty from across campus. Attending the GRC affords the entire university community the opportunity to participate in the graduate education experience.
McNair Scholars Program
20th Anniversary Research Symposium

The McNair Scholars Program will celebrate its history and legacy by hosting the 20th Anniversary Research Symposium, which will be held in conjunction with the annual UNH Undergraduate Research Conference (URC). This symposium brings together undergraduate students from a range of disciplines to promote undergraduate scholarly work. The McNair program is dedicated to increasing the number of individuals from underrepresented groups (low-income, first-generation, and/or racial minority) who are interested in pursuing and obtaining doctoral degrees and careers in academia. This Anniversary Symposium provides a forum for commemorating success in undergraduate research.

Poster Presentations

Friday, April 20
6:30–7:30 p.m.
Memorial Union Building
Room 338/340

Elizabeth Adejuyigbe
Health Management and Policy
Do Neighborhood Characteristics Influence the Existence of Asthma in Children?
Adviser: Robert McGrath

Rohina Asifi (California State University East Bay)
Biochemistry, Molecular and Cellular Biology and Business Administration
Structural Studies on RNA-peptide Interactions in the Replication Mechanism of Brome Mosaic Virus
Adviser: Chul kim

Tracy Grimes (University of Cleveland)
Sociology
Pilot Study: The Investigation and Prosecution of Stalking Cases in the City of Cleveland
Adviser: Vallipuram Sarveswaran

Tariana Little (University of Massachusetts Boston)
Psychology
Uno le Transmite Todo a los Hijos: Latino Parents’ Views of Their Roles as Sex Educators of Their Children
Adviser: Maria Torres

Amy Ma
Occupational Therapy
An Investigation of Occupation-based Practice in Upper Extremity Intervention
Advisers: Barbara White, Elizabeth Stewart

Owen Oboite (University of Massachusetts Boston)
Biochemistry, Molecular and Cellular Biology
The Metabolic Fate of 1,2-Dehydro-β-N-acetyldopamine in Cuticular Sclerotization of Sarcophaga bullata Pupa
Adviser: Manickam Sugumaran

Oral Presentations

Saturday, April 21
9:30 a.m.–4:30 p.m.
Memorial Union Building
(assigned rooms)

Megan Corbiere
Earth Sciences Oceanography
Nutrient Variability Reconstruction in the Bay of Bengal Over the Last 20,000 Years
Adviser: Rosemarie Came

Trinh Dinh (University of Massachusetts Boston)
Chemistry
Convertible Fluorous Linker-assisted Synthesis of Tetrasubstituted Furans
Adviser: Wei Zhang

Wendolyn Florentino (University of Massachusetts Boston)
Psychology
Retention of Male Reproductive Behavior in Hybrid B6D2F1 Female Mice
Independent of Ovarian Hormones
Adviser: Jin Ho Park

Lyse Lucien (University of Massachusetts Boston)
Psychology and History
Relationship Between Ethnicity, Gender, Self Esteem, and Problem Behaviors in Preadolescent Youth
Adviser: Rebecca Hencke

Fariyda Mulrain (University of Massachusetts Boston)
Undeclared
The Importance of Spirituality of Patients in Palliative Care
Adviser: Millicent Riggins

Conquista Roscoe (University of Massachusetts Boston)
Exercise Science
Placenta Dysfunction
Adviser: Laura Hayman

Eric Sales
International Affairs and Political Science
The Effect of Regional Climate on Differences in Public Opinion of Climate Change
Adviser: Lawrence Hamilton

Chaquanzha Stephenson
Political Science and Justice Studies
How Does Sentencing Policy or Law Affect Persons of Different Race, Ethnicity, and Gender?
Adviser: Charles Putnam

UNH Office of Community Service Partnerships

Monday, April 23
10:30 a.m.–Noon
Memorial Union Building
Rooms 330/332

Robert Wilson
Undeclared
Photovoice Manchester
Adviser: Semra Aytur
Thompson School Community Leadership Program

Capstone Portfolios, Nonprofit Research, and Civil Technology Mapping Project

Monday, April 23
10:30 a.m.–Noon
Memorial Union Building

The Community Leadership Program is an innovative associate degree and diploma program that prepares students of all ages to work effectively within community organizations and to be active, influential citizens. This exhibition displays students’ leadership portfolios and highlights significant community projects and partnerships.

MUB, Rooms 330/332

Capstone Projects

Moderators: Tim Barretto

Timothy Breen
Community Leadership
UNH Relay for Life
Adviser: Timothy Barretto

AnneMarie Graffeo
Community Leadership
Strike Out Breast Cancer
Adviser: Timothy Barretto

Blair Heinrich
Community Leadership
Fundraising for the Working Dog Foundation: Serving Police Dogs in Our Community
Adviser: Timothy Barretto

Nolan Lauze
Community Leadership
PASS Program Students from the Manchester School of Technology, Warmth from the Millyard Research Project Event
Advisers: Timothy Barretto, Kate Hanson

Matthew Mara
Community Leadership
Manchester Police Athletic League Comedy Show
Adviser: Timothy Barretto

Lori Parent
Community Leadership
Civil Air Patrol: Leadership and Beyond
Adviser: Timothy Barretto

Andrew Schafer
Community Leadership
With Open Minds
Adviser: Timothy Barretto

Christian Stone
Community Leadership
The Movement, Overcoming Physical Limitations
Adviser: Timothy Barretto

MUB, Room 334/336

Nonprofit Research

Moderators: Kate Hanson

Caitlyn Ayres
Community Leadership
Nonprofit Research: Monadnock AIDS Services
Adviser: Kate Hanson

Leah Burke
Community Leadership
Nonprofit Research: Tamworth Community Nurse Association
Adviser: Kate Hanson

Evan Cohen
Family Studies
Nonprofit Research: The Somersworth Youth Safe Haven
Adviser: Kate Hanson

Chandler Culveyhouse
Community Leadership
Nonprofit Research Upreach
Adviser: Kate Hanson

Melanie Drogseth
Community Leadership
Nonprofit Research: Strong Women Strong Girls
Adviser: Kate Hanson

Kelly Fox
Family Studies
Nonprofit Research: Special Olympics (The New Hampshire Chapter)
Adviser: Kate Hanson

Fiona Gettinger
Environmental Conservation Studies
Nonprofit Research: Cocheo Valley Humane Society
Adviser: Kate Hanson

Anna Hall
Family Studies
Nonprofit Research: Early Learning NH
Adviser: Kate Hanson

Kelsey Hammond
Community Leadership
Nonprofit Research: G.A.L.A. Community
Adviser: Kate Hanson

Maggi Hanson
Community Leadership
Nonprofit Research
Adviser: Kate Hanson

Courtney Hinds
Family Studies
Nonprofit Research: Camp Sunshine
Adviser: Kate Hanson

Jeffrey Lutz
Community Leadership
Nonprofit Research
Adviser: Kate Hanson

Erin McKane
Community Leadership
Nonprofit Research: Therapet Foundation
Adviser: Kate Hanson

Gabrielle Moen
Community Leadership
Sexual Assault Support Services
Adviser: Kate Hanson
Stephanie M. Morris  
Nursing  
*Nonprofit Research: Families in Transition*  
Adviser: Kate Hanson

Jacqueline Mundry  
Community Leadership  
*Nonprofit Research: On Belay*  
Adviser: Kate Hanson

Nicholas Pelrine  
Community Leadership, Sport Studies, and Communication  
*Nonprofit Research: Oyster River Youth Organization*  
Adviser: Kate Hanson

Maura Power  
Family Studies  
*Nonprofit Research: Big Brothers Big Sisters of the Greater Seacoast*  
Adviser: Kate Hanson

Meagan Prior  
Family Studies  
*Nonprofit Research: Families First*  
Adviser: Kate Hanson

Margaret Saliba  
Community Leadership  
*Nonprofit Research: Invisible Children, Inc.*  
Adviser: Kate Hanson

Olivia Smith  
Communication Sciences and Disorders  
*Nonprofit Research: Cedarcrest Center for Children with Disabilities*  
Adviser: Kate Hanson

Benjamin Trolio  
Environmental Conservation Studies  
*Nonprofit Organization: 350.org*  
Adviser: Kate Hanson

Danielle Zamarchi  
Sustainable Agriculture and Food Systems and Ecogastronomy Dual Major  
*Nonprofit Research: Seacoast Local*  
Adviser: Kate Hanson

**MUB, Rooms 334/336**

**The Warmth from the Millyard Mapping Project**  
Moderator and Adviser: Anthony Vannozzi

Christopher Connolly  
Andrew MacLaren  
Hunter Picard  
Matthew Sullivan  
Civil Technolony  
*Warmth from The Millyard: Interactive Resource Mapping Using ArcGIS Online*

**UNH Manchester Undergraduate Research Conference**

**Oral Presentations**

**Tuesday, April 24**  
10 a.m.–2 p.m.  
*University Center Manchester*

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

Brandon Boutin  
History and English  
*Terrorism in the Algerian War*  
Adviser: John Resch

Nancy Fernandes  
Biology  
*Sequencing Mitochondrial DNA: A Circle Approach*  
Adviser: Sarah Kenick

**Wednesday, April 25**  
10 a.m.–1:30 p.m.  
*Memorial Union Building*

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

**MUB, Room 334/336**  
10–11:30 a.m.  
*Atkins Investment Group*

Moderators and Advisers:  
Stephen Ciccone, Ahmad Etabari  
Paul Atkinson  
Economics  
Tyler Walsh  
Accounting  
*Portfolio Strategy*
### Marketing Workshops

**MUB, Room 330/332**

**10–11:30 a.m.**

**Moderator: William Machanic  
Adviser: Peter Masucci**

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<td>Development and Implementation of a Marketing Campaign for Pokos, Inc.</td>
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<td>James Frackleton</td>
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<td>Andre Garron</td>
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<td>Damon Kipp</td>
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<td>Natalie Kitchen</td>
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<td>Jessica Paterson</td>
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<td>Thomas Ray</td>
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<td>Laura Tentas</td>
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<td>Hannah Ward</td>
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<td>Development and Implementation of a Marketing Campaign for The Tre Ponti Center for Performing Arts</td>
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<td>Development and Implementation of a Marketing Campaign for Rasamaya Movement Centers, Inc.</td>
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Noon–1:30 p.m.
Moderator: Catherine Blake
Adviser: Peter Masucci

Caitlin Cleary
Megan Daly
Patrick Grasso
Gregory Harris
Shauna Laskowski
Tracy Naylor
Stephanie Perkins
Benjamin Roberge
Kaitlyn Scofield
Elizabeth Tom

Marketing
Development and Implementation of an Integrated Marketing Plan for Climate Counts

Caitlin Agnelli
Kirstin Bibbiani
Lindsey Coleman
Tim Cox
Alexander Gerlitz
Ashley Kaplan
Peter Neal
Alicia Papandrea
Lauren Ringland
Maura Robinson
Yang Zhi Shen

Marketing
Development and Implementation of a Marketing Campaign for the Robert Noyce Scholarship Program

Brandon Blackall
Marketing and Finance

Kimberly Greenwood
David LeBlanc
Kathleen Mommsen
Jonathan Parker

Marketing
Design, Development, and Implementation of an Integrated Marketing Campaign for Target, Corp.—Research Team

Hannah Cametti
Katlyn Coyne
Daniel Gejay
Taylor Scully
Zachary Smith
Zachary Tyler
Marketing
Design, Development, and Implementation of an Integrated Marketing Campaign for Target, Corp.—Advertising and PR Team

Ashley Canning
Jilliane Friel
Scott Haskell
Peter Kutz
Sarah Lapitino
Andrew Morse
Marketing
Design, Development, and Implementation of an Integrated Marketing Campaign for Target, Corp.—Campaign Implementation Team

Michelle Boisvert
Ilana Cohen
Brooke Duchaney
Dustin Feldman
Jillian Granucci
Megan Horowitch
Danielle McVicar
Lindsey Minton
Mark Partridge
Kyle Suva
Marketing
Development and Implementation of an Integrated Marketing Plan for Our House For Girls

Brandon Amico
Taylor Barnes
Lauren Fopiano
Michael Germaske
Matthew M. McLaughlin
Steven Mountzouris
Erin Shea
Kaycee Smith
Max Stewart
Jamie Sullivan
Marketing
Development and Implementation of a Marketing Campaign for the Town of Wells, Maine

MUB, Room 334/336
Noon–1:30 p.m.

Marketing Research
Moderator: Audrey Ashton-Savage
Adviser: Peter Masucci

Ethan Ash
Patrick Barnard
Bailey Comyns
Kristen Kouloheras
Peter Kutz
Steven Mountzouris

Marketing
Measuring the Effects of Forced Triples in UNH Housing on Student Performance and College Experience

Ashley Canning
Shauna Laskowski
David LeBlanc
Peter Neal
Alicia Papandrea
Mark Partridge

Marketing
Assessing the Impact of Overcrowding in UNH Campus Recreation Facilities

Katlyn Coyne
Jilliane Friel
Carrie Jensen
Matthew M. McLaughlin
Sean Reagan
Benjamin Roberge
Maura Robinson

Marketing
Measuring the Demand for Expanded Online Course Offerings at UNH

Mikayla Cadoret
Paige Goloubef
Kathleen Mommsen
Michael Nocella
Zachary Smith
Jamie Sullivan

Marketing
Robert Wise
Marketing and Business Administration
A Study and Assessment of the UNH Academic Advising System
Kirstin Bibbiani  
Sarah Lapitino  
Jason Metzenroth  
Kaitlyn Scofield  
Taylor Scully  
Yang Zhi Shen  
Marketing  
Assessing the Effectiveness of UNH Advising and Career Placement Services

MUB, Room 334/336
Multidisciplinary Oral Presentations
Moderator: Fiona Wilson
Kimberly Greenwood  
Marketing  
Higher Education Marketing to the Hispanic Student Population  
Adviser: Audrey Ashton-Savage
Kevin Lapoint  
Business Administration and Management and Finance  
Micobrewing in the US: An Overview of the Microbrewery Industry and a Business Plan for Future Success  
Adviser: Fiona Wilson

Whittemore School of Business and Economics Undergraduate Research Conference

Poster Presentations
Wednesday, April 25  
10 a.m.–1:30 p.m.  
Memorial Union Building  
Granite State Room
Through original research and valuable guidance from mentors, this event helps students gain deeper academic knowledge as well as professional experience. This URC event includes poster presentations, oral presentations, and feedback from University and business leaders.

MUB, Granite State Room  
10–11:30 a.m.
Accounting and Finance
Moderator: Wenjuan Xie  
Adviser: Catherine Plante
Christopher Bosco  
Business Administration and Accounting  
The Bankruptcy of General Motors
Brad Coletta  
Accounting  
Lean Accounting: A New Approach to Cost Accounting
William Fritzky  
Accounting  
Patent Law: Then and Now

MUB, Granite State Room  
10–11:30 a.m.
EcoGastronomy
Moderator: Daniel Winans
Garrett Bauer III  
Community and Environmental Planning and Ecogastronomy Dual Major  
Expanding Markets for Sustainable Farm Products in New Hampshire: An Assessment of Impact and Suitability of the Lake Sunapee Area  
Adviser: Daniel Winans
Emelie Buell  
Nutrition and Ecogastronomy  
Exploring UNH Dining Food: Ingredients, Health, and Value  
Adviser: Daniel Winans
Sarah Jacobson  
Nutrition and Ecogastronomy  
Ecogastronomy Capstone: SNAP/EBT at the Seacoast Eat Local Winter Farmers’ Market  
Advisers: Joanne Burke, Daniel Winans
Heather Rusaw  
Nutrition and Ecogastronomy Dual Major  
Moving Towards Sustainable Self-sufficiency: A Beginner’s Guide to Backyard Farming for the Modern Homesteading Family  
Adviser: Daniel Winans
Meagan Visnaskas  
Philosophy and Ecogastronomy Dual Major  
International EcoVillages and The Underlying Philosophy  
Adviser: Daniel Winans

MUB, Granite State Room  
10–11:30 a.m.
Macroeconomies from Around the World
Moderator and Adviser: James Wible
Molly Bulger  
Anthropology  
A Macroeconomic Survey of Norway
Joshua Chamberlain  
Political Science  
A Macroeconomic Survey of Russia
Logan Chase  
Business Administration  
A Macroeconomic Survey of Canada
Marcus Chase  
Accounting and Finance  
A Macroeconomic Survey of Ireland
Connor Clerkin  
Economics  
A Macroeconomic Survey of Ecuador
Kathleen Gillespie  
Business Administration  
A Macroeconomic Survey of Australia
Marley Harunk  
Undeclared  
A Macroeconomic Survey of Greece
Alexander LeGore  
Management  
A Macroeconomic Survey of Brazil
Kevin McAleese  
International Affairs and Political Science  
A Macroeconomic Survey of Uruguay
Michael McCullock  
Biomedical Science  
A Macroeconomic Survey of Japan
Tuan Nguyen
Economics
A Macroeconomic Survey of Vietnam

Katie Pappas
Business Administration
A Macroeconomic Survey of Saudi Arabia

Sara Santos
Sustainable Agriculture and Food Systems and Ecogastronomy
A Macroeconomic Survey of China

Lauren Saucier
English/Journalism, International Affairs and German
A Macroeconomic Survey of Germany

Ian Tanafon
Political Science
A Macroeconomic Survey of Portugal

Alyssa Washakowski
Business Administration
A Macroeconomic Survey of Spain

Johnson Whippie
Physics and Kinesiology
A Macroeconomic Survey of Sweden

MUB, Granite State Room
10–11:30 a.m.

Management

Michael Borisenok
Entrepreneurial Venture Creation and Information Systems Management

Margaret Cobb
Finance and Management

Matthew Evans
Management

James McWilliams
Information Systems Management and Management
Seacoast NH Property Management
Adviser: William Hassey

Megan Graham
Information Systems Management and Management
White Collar Crime and the United States’ Economy
Adviser: Thomas Hand

Nicholas Babson
International Business and Economics and Management
An Economic Analysis of Boston Redsox, 25 Man Roster

Lisa Castelli
Accounting and Economics
An Economic Analysis of the Boston Celtics Roster

Michael Curtin
Integrated Applied Mathematics and Justice Studies
An Economic Analysis of College Football:
Market for Money?

Joseph Daloisio
Marketing
Economics of Sports

Hali Dengenis
International Business and Economics
An Economic Analysis of Olympic Stadiums

Hans Fischer
Economics and Information Systems Management
An Economic Analysis of the Relocation of the Oklahoma City Thunder

Corey Flewelling
Management
An Economic Analysis of the Patriots Football Roster

Scot Hein
Economics
An Economic Analysis of Super Bowl Advertising

Kristine Horn
Political Science
An Economic Analysis of the Detroit Red Wings Roster

Robert Johnson
Mathematics & Statistics and Economics
An Economic Analysis of Improving NHL Entry Draft Metrics

William Kluber
Economics
An Economic Analysis of the Efficiency of the New York Jets Roster

MUB, Granite State Room
10–11:30 a.m.

Marketing

Hannah Cametti
Marketing
Marketing Through Sports
Adviser: William Machanic

Bridget Croasdale
Business Administration

Emily Gatsas
Marketing

Marlee O’Neil
Entrepreneurial Venture Creation
Burt’s Bees’ Bee Clean Marketing Plan
Adviser: Lin Guo

Alicia Papandrea
Marketing

Anna Powers
Marketing

Sean Stewart
Marketing

Market Research Study of Potential New WSBE Class
Adviser: Audrey Ashton-Savage

MUB, Granite State Room
Noon–1:30 a.m.

Economics of Sports

Moderator and Adviser: James Wible

Samuel Alpert
Economics
An Economic Analysis of the Dallas Mavericks Roster

Birkley Argue
Finance and Economics
An Economic Analysis of the Boston TD Garden

Ethan Ash
Marketing
An Economic Analysis of Fantasy Football on Revenue for the NFL
Dianna Kurowyckyj  
Economics  
*An Economic Analysis of UNH Athletics*

Andrew Martin  
Mathematics & Statistics and Economics  
*An Economic Analysis of the Market for a National Hockey League Franchise in Relocation*

Matthew T. McLaughlin  
Economics  
*An Economic Analysis of the Oklahoma City Thunder Roster*

Shane Morin  
Communication  
*An Economic Analysis of the Relocation of NHL’s Atlanta Thrashers to Winnipeg*

Sishemo Mwesigwa  
Economics  
*An Economic Analysis of the Building of an NBA Roster: The Miami Heat*

Andrew O’Connor  
Finance  
*An Economic Analysis of Gillette Stadium*

Bria Oneglia  
Economics  
*An Economic Analysis of Labor Markets in Professional Athletics*

Benjamin Phelps  
Economics  
*An Economic Analysis of the Olympics: Cost or Benefit?*

Stephen Potts  
Economics  
*An Economic Analysis of the Green Bay Packers: A Public Approach*

Eric Poulin  
Economics  
*An Economic Analysis of Fenway Park*

Fraser Tibbetts  
Finance and Economics  
*An Economic Analysis of Lucas Oil Stadium*

Zakes Warner  
Economics  
*An Economic Analysis of Cowboy Stadium*

Daniel Weidman  
Economics  
*An Economic Analysis of Reliant Stadium*

Sean Woods  
Business Administration  
*An Economic Analysis of the Boston Bruins’ Roster*

Amelia Berube  
Business Administration

Mackenzie Fraser  
Kinesiology and Management

Daniel Hernon  
Management and Justice Studies

Matthew M. McLaughlin  
Marketing  
*Refrigeround*  
Adviser: William Hassey

Brandon Blackall  
Marketing and Finance

Joshua Corriveau  
Business Administration

Sayiram Sellappah  
Information Systems Management

Christopher Siegel  
Finance and Management  
*Tutor Finder*  
Adviser: Mary Gale

Michelle Boisvert  
Jonathan Parker  
Marketing  
*PolarPOD*  
Adviser: Peter Masucci

Michael Borisenok  
Entrepreneurial Venture Creation and Information Systems Management  
*Greater Than Sports*  
Adviser: Kholekile Gwebu

Adam Brickett (graduate student)  
Carleton Simpson  
Electrical & Computer Engineering  
*CATshare*  
Advisers: Michael Carter, Peter Masucci

Alan Buzbee  
John Groff  
Victoria Martin  
Management  
Courtney Ruffen  
Art Studio and Ecogastronomy  
*Bus Hunter*  
Adviser: William Hassey

Whittemore School of Business and Economics  
Paul J. Holloway  
Innovation-to-Market Prize Competition

**Charles & Miriam Nelson Poster Competition**

**Wednesday, April 25**  
**Noon–2pm**  
**Memorial Union Building**  
**Granite State Room**

Established with a gift from Charles and Miriam Nelson, this poster competition gives students an opportunity to showcase their research into entrepreneurship. Students present a poster and a three-minute oral presentation to a team of judges comprised of representatives from business and industry. Judges have up to three minutes to ask follow-up questions.

Moderators: Michael Merenda, Devkamal Dutta

Joshua Allen  
Nicholas Beltramini  
Management  
*Troy Delaney*  
Management and Finance  
*Lighten the Load Storage, LLC*  
Adviser: William Hassey
Christopher Chandler (graduate student)
Ryan Martin (graduate student)
MoSho
Adviser: Charles Martin
William Clement
Entrepreneurial Venture Creation and Management
Dustin Feldman
Marketing
Jeffery Holland
Accounting and Management
Sponsored
Adviser: William Hassey
William Clement
Jaimie Lemieux
William Sullivan
Entrepreneurial Venture Creation and Management
Christopher Doleac
Management
XRCise
Advisers: Mark Galvin, Marc Sedam
Joseph Daloisio
Marketing
Nathan Laperle
Management and Marketing
Taylre O’Byrne
Business Administration
The Arctic Box
Adviser: William Hassey
Charles Denault
Biology
John Dodds
Management
Andra Erglis
Accounting
Zip-Through Systems
Adviser: Mary Gale
Joline Dubuc
Business Administration and Entrepreneurial Venture Creation and Management
Stephan Halvatzes
Business Administration and Finance and Management
Aaron Van de Car
Business Administration and Management
Style Assist
Adviser: William Hassey
Alexander Guilbeault
Marketing
Brandon Somogie
Julia Spencer
Management
Marcheilla Surusa
Finance and Management
LocalGrub
Adviser: Mary Gale
Andrew Jaccoma (graduate student)
Olha Johnson (graduate student)
Sensible Spreader Technologies
Adviser: Robert Gough
Daniel LaBrecque
Kyle Reilly
Management
Lillian Seymour
Business Administration
Business Match
Adviser: Audrey Ashton-Savage
Michael Lapanne
Management
Jesse Mills
Finance and Management
Cameron Quimby
Finance
Commonjobapp.com
Adviser: Mary Gale
William Leith
Entrepreneurial Venture Creation
Leith’s Karate School
Adviser: William Hassey
Noel Lindgren
Vance Turner
Marketing
NV Landscaping
Adviser: Mary Gale
Michael Lund
Andrew Zamansky
Finance and Management
Michael Nocella
Laura Tentas
Marketing
EZ-Lock Repelling Garbage Can
Adviser: Mary Gale
Daniel Mannarino
Computer Science
Emily Spognardi
Environmental Conservation Studies
Joseph Van Gombos
Political Science
Robert Wise
Marketing and Business Administration
Trash 2 Treasure
Adviser: Michael Swack
Michael Veilleux (graduate student)
Gear Freedom
Adviser: Juan Florin
Shaojun Yao (graduate student)
Anti-Fatigue Ointment Stick for Drivers (Formerly Known as WAKUP)
Advisers: Marc Sedam, W. Rudolf Seitz
The Naked Arts—Creativity Exposed

Act I

Wednesday, April 25
Noon–2 p.m.
Paul Creative Arts Center
Museum of Art

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

Tara Appleton
Fine Arts
A Development of Still Lifes
Adviser: Julee Holcombe

Taylor Maroney
Art Studio
The Structure of Life: Figure and Environment
Advisers: Julee Holcombe, Leah Woods

Sarah Nelson
Fine Arts
Painting the Internal Landscape
Adviser: Julee Holcombe

Interdisciplinary Science & Engineering Symposium (ISE)

Poster Presentations

Wednesday, April 25
2–5 p.m.
Kingsbury Hall and Morse Hall

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. Students have an opportunity to interact with peers and gain professional experience presenting research. Attendees learn more about research and educational opportunities in science and engineering at UNH. The program will include a poster session, refreshments, and an awards ceremony.

Sinor Ali
Neil Hansen
Civil Engineering

Peter Calhoun
International Affairs and Civil Engineering
Mill Pond Dam Removal Assessment and River Restoration in Durham, NH
Adviser: Thomas Ballestero

Anabelle Allen
Nicholas Balzano
Alexander Buesing
Jesse Fand
Ross Robertson
Civil Engineering
University of New Hampshire Steel Bridge 2012
Adviser: Charles Goodspeed

Jacqueline Amante
Environmental Sciences
Quantifying Methane Ebullitive Flux from Subarctic Ecosystems
Adviser: Ruth Varner

Christopher Anderson
Ryan Coffey
Charles Gurney
Civil Engineering
Albacore Stabilization
Advisers: Jean Benoît, Ricardo Medina

Benjamin Anibal
Laura Baldinger
Dustin Metayer
Mechanical Engineering
Cohesive Incipient Motion
Adviser: Diane Foster

Seshank Appasani
Christopher Chirgwin
Paul Rioux
Electrical & Computer Engineering
The Measurement and Analysis of Ion Flow Between the Human Body and Local Ground
Advisers: Kent Chamberlin, Wayne Smith

Varouna Appiah
Rebecca Rubinstein
Environmental Engineering
Data Acquisition and Response Tool
Adviser: Nancy Kinner

Rohina Asifi
Biochemistry, Molecular and Cellular Biology and Business Administration
Structural Studies on RNA-peptide Interactions in the Replication Mechanism of Brome Mosaic Virus
Adviser: Chul Kim

Nicholas Aubut
Joshua Chabot
William Holmes
Abigail Jenkins
Michael Johnson
Timothy Roemer
Mechanical Engineering
NASA Magnetospheric Multi-scale Mission TableSatellite 1B
Adviser: May-Win Thein
Megan Barry
Anthropology
Ian Chase
Environmental Sciences
Clay Cowart
Environmental and Resource Economics
Meghan Craig
Philosophy
Tyler Dami
Computer Science
Tim Doucette
International Affairs and French
Stephen Prescott
Geography
Susan Torman
Environmental Conservation Studies
A More Sustainable UNH
Adviser: Cameron Wake

Kurtis Bartlett
Physics
An Infrared Laser Testing Facility for the Characterization of the CLAS12 Silicon Detectors
Advisers: Maurik Holtrop, Sarah Phillips

Vincenzo Bartucca
Civil Engineering
Daniel Berry
Ellen LaMonica
Mechanical Engineering
Ryan Henley
Environmental Engineering
Memorial Bridge Hydrokinetic Power Generation
Advisers: Kenneth Baldwin, Erin Bell

Andrea Bedell
Physics
Analysis of Scintillator Characteristics to Improve Portable Neutron Spectroscope (NSPECT)
Adviser: James Ryan

Eric Beiswenger
Elizabeth Campbell
Jacob Chamberlain
Andrew Kennedy
Caleigh MacPherson
Anthony Morin
Jaron Peters
Camille Poulin
Tadd Smith
Mechanical Engineering
Patrick Merrill
Jonathan Wilson
Computer Science
UNH Lunabot for the NASA Lunabotics Mining Competition
Adviser: May-Win Thein

Jason Berube
Justin Bosiak
Matthew Garabedian
Jeffrey Hebert
Lauren Heimann
Geoffrey Howe
Mechanical Engineering
AIAA—Remote Controlled Airplane
Adviser: Christopher White

Lily Beyer
Erik Carlson
Lorilee Mather
Robert Nickerson
Eric Ohanian
Civil Engineering
Lyndeborough Road Bridge Replacement Project
Adviser: Raymond Cook

Brendan Bickford
Mechanical Engineering
Positron Identification by Coincident Annihilation Photons (PICAP) System
Advisers: James Connell, May-Win Thein

Alexander Black
Jacob Dore
Joseph Gabriel
Vojtech Kubec
Timothy Maloney
Patrick McCleary
Mechanical Engineering
Formula Race Car—FSAE
Adviser: Todd Gross

Christopher Blais
Logan Mower
Jenny Nichols
Brian Zukas
Chemical Engineering
Robert Carroll (graduate student)
Microcapsule and Droplet Dynamics in Channels
Adviser: Nivedita Gupta

Matthew Bogle
Neal Drake
Alexander Klink
Brian Paula
Civil Engineering
Maxwell Murray
Electrical & Computer Engineering
Oyster River Dam Restoration
Adviser: David Gress

Scott Bonneau
Kyle Devenish
Katherine Fletcher
Jonathan MacBride
Civil Engineering
Nottingham School Athletic Fields
Adviser: Jo Daniel

Richard Bonnin
Scott Byrne
Andrew Sartorelli
Adam Stankard
Mechanical Engineering
Data Center Thermal Management
Adviser: Todd Gross

Alexandra Bowen
Christen Breda
Megan Good
Patrick Ready
Environmental Engineering
PCB’s: Scrapyard Remediation
Adviser: Kevin Gardner

Alexandra Bowen
Megan Good
Environmental Engineering
The Effective Removals of Pharmaceuticals by Direct/Advanced UV Photolysis
Advisers: James Malley

Nathaniel Bradley
Robert Chase
Benjamin Sawyer
Civil Engineering
Inundation Analysis of Asphalt Concrete
Adviser: Jo Daniel
Kelsey Packard  
Chemistry  

Austin Gregoire  
Undeclared  

Elizabeth Brady (graduate student)  
Monitoring Iso-α-acids to Evaluate Whirlpool Efficiency of Hopped Wort by HPLC  
Adviser: Sterling Tomellini  

Adam Brammer  
Andrew Grant  
Erich O’Dowd  
Mechanical Engineering  
Fire Fighting Robot  
Adviser: Barry Fussell  

Christopher Bridges  
Gary Porres  
Electrical & Computer Engineering  
Angle of Arrival Detection  
Adviser: Kent Chamberlin  

Jeffrey Brulet  
Chemistry  
Studies on Thermal and Carbocatonic Rearrangements Through Isotopic Labeling  
Adviser: Richard Johnson  

Shawn Bryan  
Computer Science  

Joshua Clairmont  
Electrical & Computer Engineering  
Tangible User Interfaces for Multi-touch Surfaces  
Adviser: Andrew Kun  

Bradford Cannon  
Physics  
A Statistical Study of newborn Interstellar Pickup Ions  
Adviser: Charles Smith  

Emily Car  
Ashley Hale  
Electrical & Computer Engineering  
Bicycle for the Visually Impaired  
Adviser: John LaCourse  

Spencer Carey  
Brian McConnell  
Brendan Nichols  
Seth Tremblay  
Chemical Engineering  
Nanofiltration of Algal Oil from Hexane  
Adviser: Ihab Farag  

Emily Carlson  
Ransom Horner-Richardson  
Civil Engineering  

Harrison Roakes  
Environmental Engineering  

Thistleton Robertson IV  
Civil Engineering and Environmental Engineering  

Alexander Rozycki  
Environmental Engineering  
Potable Water Treatment System for the Dominican Republic  
Adviser: James Malley  

Erik Carlson  
Civil Engineering  
Adviser: Jennifer Jacobs  

Kevin Carpenter  
Bryan Hinson  

Derek Long  
Amanda Sweetman  
Civil Engineering  
Cocheco Site Development  
Adviser: Rebekah Gaudreau  

Desiree Carron  
International Affairs and Civil Engineering  

Jared Duval  
Matthew Miller  
Zachary Zavalianos  
Civil Engineering  
I-93 Exit 14 Superstructure Replacement Design Project  
Adviser: Erin Bell  

Garrett Cassidy  
Vincent Lyon  
Britta Moore  
Mechanical Engineering  
Pedal Powered Washing Machine  
Adviser: Brad Kinsey  

Samuel Chaney  
Daniel Enos  
Mechanical Engineering  
Students Without Borders  
Adviser: Brad Kinsey  

Kyle Charmanski  
Dean Dudley  
Jeffrey Mattar  
Steven Titus  
Mechanical Engineering  
Drop Blast  
Adviser: Diane Foster  

Tyler Chase  
Daniel Lapan  
Daniel Mooney  
Mechanical Engineering  
SigSauer Rifle Simulator  
Adviser: Brad Kinsey  

John Clark  
Earth Sciences Teaching  
Effects of pH on Arsenic Mobility in Metasedimentary Bedrock: Insights from Leaching Experiments on Rocks from the Kittery Formation  
Adviser: Julia Bryce  

Shaun Cmar  
Electrical & Computer Engineering  
Data Collection for the FSAE Car  
Adviser: W.T. Miller  

Jesse Coburn  
Physics  
The Turbulent Cascade and Proton Heating in the Solar Wind During Solar Minimum  
Adviser: Charles Smith  

Benjamin Comtois  
Spencer Roux  
Ryan Therrien  
Mechanical Engineering  
UNH Hydrofoil Force Balance  
Adviser: Martin Wosnik  

Timothy Condon  
Andrew Gherardi  
Jonathan Travers  
Mechanical Engineering  
Bridge Underpass Turbine  
Adviser: Martin Wosnik  

Scott Connatser  
Vincent Hoang  
Jeffrey Manzik  
Electrical & Computer Engineering  
Audio/Visual Effects Board  
Adviser: W.T. Miller
Isabel Cormier
Geology
Possible Sources of Red Merrimack Sands
Using Spectral Remote Sensing
Adviser: Shachak Pe’eri

Ashlee Cummings
Charlene Nault
Electrical & Computer Engineering
Heads up Cones
Adviser: Richard Messner

Jonathan Davidson
Christopher Dick
Andrew DiFabio
Nicholas Dusza
Steven Gallerani
David Jonas
Charles Langois
Justin Rau
Jacob Richards
Mechanical Engineering
Mini-Baja
Adviser: Robert Jerard

Stefan Deangelis
John Shepheard
Scott Shillieto
Matthew Weber
Aaron Wetherbee
Civil Engineering
Douglas Road Bridge Replacement
Northbridge, MA
Adviser: Raymond Cook

Geoffrey Delisle
Matthew Gilchrest
Liam Kalloch
Michael McDermott
Civil Engineering
UNH Crew Boathouse
Adviser: Rebekah Gaudreau

Gregory DiSanto
Geography
The Lamprey River: Erosion and Habitat Assessment
Adviser: Anne Lightbody

Jessica Dick
Environmental Sciences
Agricultural Impacts on Soil and Plant Litter Mineralogy
Adviser: Jo Laird

Joel Dietrich
Matthew Lane
Christian Rice
John Russo
Civil Engineering
Commercial Subdivision
Adviser: Rebekah Gaudreau

Eric Donovan
Jonathan Dwyer
Kenneth Weigel
Electrical & Computer Engineering
Oar Bend
Adviser: Wayne Smith

Tristan Donovan
Civil Engineering
Foam Index Test
Adviser: David Gress

Tyler Dow
Reem Haddad
Brian Patinskas
Michael Umberger
Civil Engineering
Windham High School
Adviser: Rebekah Gaudreau

Kimberly Drew
Chemistry
Tandem Chain Extension Mannich Reaction: A New Synthetic Route to b-Proline
Adviser: Charles Zercher

Kathryn Dube
Chemistry
Computational Studies of Polymer Folding in Various Solvents
Adviser: Erik Berda

Jason Dusseau
Matthew Glockler
Andrew Jacobs
Benjamin Payeur
Electrical & Computer Engineering
Communications for UAV Sensor Network
Adviser: Nicholas Kirsch

Samantha Ebner
Mechanical Engineering
Spatial Evolution of a Turbulent Boundary Layer
Adviser: Joseph Klewicki

Scott Fanara
Timothy Lotterhand
Zachary Scanlon
Civil Engineering
Route 4 and Morgan Way Intersection
Adviser: Rebekah Gaudreau

Justin Fleming
Chemistry
New Derivatives of Polycyclic Tetraamines
Advisers: Gary Weisman, Edward Wong

Evan Flower
Joshua Kushinsky
Evan Plante
Mechanical Engineering
Sheet Hydroforming Machine
Adviser: Ioannis Korkolis

Daniel Foley
Physics and Materials Science
Oxidation Resistant Titanium Chromium Nitride Hard Coatings
Adviser: James Krzanowski

Marcus Forand
Chemistry
Folding of Single Chain Polylactide as Scaffolding for Nanoparticle Assemblage
Adviser: Erik Berda

Michele Forrestall
Geology
Aftershock Patterns of Oceanic Intraplate Strike Slip Earthquakes and Implications for Anomalous Aftershock Behavior of Oceanic Transform Fault Earthquakes
Adviser: Margaret Boettcher

David Gabrault
Zachary Valente
Kyle Wyatt
Civil Engineering
Ryan Haselton
Anton Pugachevsky
Computer Science
Structural Analysis Using Smartphone Accelerometers
Adviser: Tat Fu

Jon Gatarz
Mathew Mastrogiacomo
Daniel Patterson
Curt Spencer
Civil Engineering
Sibley Pond Bridge
Adviser: Erin Bell
Kevin Genestreti
Physics
On The Effect of Heavy Ions of Ionospheric Origin on Magnetopause Reconnection
Advisers: Lynn Kistler, Christoforos Mouikis

Matthew Gibbons
Civil Engineering and Civil Technology

Jacob Sparkowich
Civil Engineering
Concord Sand and Gravel Quarry Expansion—Pembroke, NH
Adviser: Rebekah Gaudreau

Mario Giroux
Stanley Welch
Civil Engineering

Casey Shingleton
Environmental Engineering
Road and Climate Change
Advisers: Jo Daniel, Jennifer Jacobs

Ryan Goulding
Computer Science
SAS Simulator
Adviser: Mikkel Hagen

Ryan Goulding
Nathan Jellis
Computer Science
Green Heat Heliostat
Adviser: Ted Sparr

Joseph Grande
Thomas Harada
Kendall Masse
Evan Willis
Computer Science
Android Health Gateway Sniffer
Adviser: Barry Reinhold

Rose Hadley
Chemistry and Neuroscience and Behavior
Quantitative Determination of Free Metal Ion Concentration by Fluorescence Calibration Methods
Adviser: Roy Planalp

Casey Hale
Thomas Paquet
Mechanical Engineering
Lignocellulosic Ethanol Biomass Refinery
Adviser: Christopher White

Caitlin Hoffman
Chemistry
Novel Approaches for Azamacrocycle Synthesis
Advisers: Barbara Li, Gary Weisman, Edward Wong

Blake Janelle
Jonathan Noyes
Jennifer Shartrand
Computer Science
UNH Sustainability Mobile App
Adviser: Ted Sparr

Raymond Jones
Matthew Mazzola
Khanh Nguyen
Matthew Normandeau
Thomas Provencher
Alexandra Washakowski
Mechanical Engineering

Michael LeVeille
Computer Science
UNH Underwater Remotely Operated Vehicle
Adviser: May-Win Thein

Amy Keding
Chemistry
College Students’ Perspectives About High School Chemistry
Adviser: Christopher Bauer

Glenn Koch (guest from Elizabeth City State University)
Computer Science
Hybrid Cloud Security: Replication and Direction of Sensitive Data Blocks
Adviser: Linda Hayden (ECSU)

Alec Kulbacki
Electrical & Computer Engineering
The Secure, Automated Home
Adviser: W.T. Miller

Ryan LaRocque
Sean Mitchell
Julie Swan
Environmental Engineering

Alexander Pape
Civil Engineering
Rainwater Harvesting for Irrigation in East Africa
Adviser: Michael Collins

Edward LaVilla
Physics
An Alternative Anti-coincidence for Angle Detecting Inclined Sensors (ADIS) System for Measuring Space Radiation
Advisers: James Connell, Clifford Lopate

Amanda Lade
Chemical Engineering
Toxic Gold? Bioavailability of Olive Oil Waste Phenols to Plant Matter
Adviser: Jillian Goldfarb

Taylor Langkau
Earth Sciences Oceanography
Phosphate Availability During Sediment Resuspension Events in Great Bay
Adviser: Linda Kalnejais

Ryan Lawrence (guest from Elizabeth City State University)
Chemistry
Developing a Method for Estimating Accumulation Rates Using CReSIS Airborne Snow Radar from West Antarctica
Adviser: Linda Hayden (ECSU)

Haodan Li
Electrical & Computer Engineering
Dynamics of Air and Wind Turbine Blade Interaction
Adviser: L. Gordon Kraft

Aaron Longchamps
Christopher Neveu
Aaron Teune
Computer Science
Implementing a Shibboleth Single Sign On System
Adviser: Scott Valcourt

Matthew Lowell
Physics and Mathematics & Statistics
Detection of Hyperpolarized Xenon-129 Through Titanium Shielding
Adviser: F Hersman

Patrick MacArthur
Computer Science
Design and Implementation of a High-level Application Programming Interface for Remote Direct Memory Access
Adviser: Robert Russell
Kayla Mackenzie  
Chemical Engineering  
Palladium-tin Alloyed Catalysts for the Ethanol Oxidation Reaction in an Alkaline Medium  
Adviser: Xiaowei Teng

Matthew Mann  
Mechanical Engineering

Daniel Pelcak  
William Rideout  
Computer Science  
TableSat IIB for the NASA Magenetosphere MultiScale (MMS) Mission  
Adviser: May-Win Thein

Matthew Marquis  
Biology  
Production of Barnacle Cement in Plants  
Adviser: Subhash Minocha

William Matern  
Mechanical Engineering  
Mathematical Model for Evaluating a Fluid Film Atop a Deflecting Solid Substrate  
Adviser: Greg Chini

Robert Moore  
Computer Science  
UAV Flight Handling via Multi-touch Interaction using Microsoft Surface  
Adviser: Andrew Kun

Zachary Morrill-Winter  
Mechanical Engineering  
Interaction of a Laminar Shear-wake with a Circular Cylinder  
Adviser: Joseph Klewicki

Abigail Morris  
Earth Sciences  
Seafloor Characterization of the Merrimack River Ebb Tidal Delta  
Advisers: William Clyde, Shachak Pe’eri

Matthew Mower  
Chemistry and Mathematics & Statistics  
Zinc Carbenoid Mediated Preparation of Novel Peptidomimetics  
Adviser: Charles Zercher

Phillip Munson  
Biochemistry, Molecular and Cellular Biology

Matthew Reinholid  
Physics  
Carbohydrate Cancer Biomarkers: A New Technique for Structural Verification  
Adviser: Vernon Reinholid

Michael Naylor  
Civil Engineering  
UNH Wind Powered Bridge  
Adviser: Jean Benoit

Patrick O’Brien  
Scott Picariello  
Mechanical Engineering  
Mountain Bike Frame  
Adviser: Ioannis Korkolis

Laurent Officer  
Earth Sciences Oceanography  
Seasonal Variation of Benthic Nutrient Fluxes in the Great Bay  
Adviser: Linda Kalnejais

Lauren Pappas  
Chemical Engineering  
ChemECar  
Adviser: Jillian Goldfarb

Nicholas Parrillo  
Physics  
Water Surface Temperature and Salinity Measurements Using Raman Scattering  
Adviser: Shachak Pe’eri

Michael Pena  
Electrical & Computer Engineering  
Electric Saxophone  
Advisers: Francis Hludik, W.T. Miller

Carol Perkins  
Electrical & Computer Engineering  
Experimental Evaluation of Speech Based SMS While Driving  
Adviser: Andrew Kun

Rachel Pisa  
Environmental Engineering

William Schkuta  
Alexander Sellar  
Civil Engineering  
Cocheco River Bank Stabilization and Erosion Control  
Adviser: Ronald Pease

Ivan Razumenic  
Electrical & Computer Engineering  
Pupil Diameter Based Cognitive Load Estimation in Driving Environment  
Adviser: Andrew Kun

John Romano  
Carleton Simpson  
Electrical & Computer Engineering  
Electric Motorcycle Conversion  
Adviser: Allen Drake

Jacob Schwartz  
Computer Science  
Software Engineering for the Mobile Application Market  
Adviser: Radim Bartos

Jacob Setera  
Earth Sciences  
Isotope Geochemistry of Willwood Formation Paleosols from the Paleocene Eocene Thermal Maximum; Bighorn Basin, WY  
Advisers: Julia Bryce, William Clyde

Jason Shuster  
Physics  
Characterizing Electrons in Secondary and Primary Magnetic Islands During Magnetic Reconnection  
Advisers: Li-Jen Chen, Roy Torbert

Wescott Smith  
Civil Engineering  
Reservoir Pond Dam Reconstruction  
Adviser: Ronald Pease

Matthew Stemkowski  
Physics  
Computation of the Autocorrelation Function for Solar Wind Turbulence at 1 AU Spanning Many Spatial Scales and Using Multiple Techniques  
Advisers: Charles Smith, Bernard Vasquez

Brady Stewart  
Electrical & Computer Engineering  
Radiation Spectrometry For CubeSat Application  
Adviser: Andrzej Rucinski

Erika Swanson  
Integrated Applied Mathematics  
Chlorine Corrosion in a Biomass Boiler  
Adviser: Stephen Wineberg
Karen Sweeney  
Biochemistry, Molecular and Cellular Biology  
Swathi Turlapati (post-doctoral researcher)  
Population Diversity of Nitrifying Bacteria of Chronic Nitrogen Treated Soils at Harvard Forest, MA  
Advisers: Rakesh Minocha

Spencer Tate  
Environmental Sciences  
Analysis of Surface Elevation Tables (SET) of New Hampshire Salt Marshes  
Adviser: David Burdick

Jonathan Tomer  
Environmental Sciences  
Land Cover Change in New Hampshire  
Adviser: Russell Congalton

Cathleen Turner  
Earth Sciences  
Understanding Organic Carbon Cycling in the Great Bay: A Numerical Approach  
Adviser: Linda Kalnejais

Bryan Vangel  
Environmental Sciences  
Estimating Stream Reaeration with Gas Evasion and Sound Pressure  
Adviser: William McDowell

Nicholas Wageling  
Chemistry  
Synthesis of 2,6-bis (aminomethyl)thiophenol for Use in Modeling Biological Metal-thiolate Bonds  
Adviser: Samuel Pazicni

Victoria Ward  
Environmental Sciences (Hydrology)  
Determining the Response to Precipitation of Hummock and Hollow Microtopography in a Temperate Fen  
Adviser: Ruth Varner

Lindsay Warner  
Environmental Engineering  
Georgetown, Maine Water Quality Re-evaluation  
Advisers: Nancy Kinner

Charles Watkins  
Environmental Engineering  
Oil Flume Experiments  
Adviser: Nancy Kinner

Bradley White  
Chemical Engineering  
UNH Campus Air Quality  
Adviser: Jillian Goldfarb

Daniella Williams  
Environmental Sciences  
Ecology of Streams Surrounding Great Bay  
Adviser: William McDowell

Rebecca Wilson  
Environmental Engineering  
Metal Nanoparticles for Solar Panel Applications  
Adviser: Dale Barkey

David Wood  
Biology  
Hailong Zhang (research project manager)  
Whole Genome Analysis of Multiple Diploid Strawberry Species Using Read Depth Coverage, SNP Density, and Percent Heterozygosity  
Adviser: Thomas Davis

Justin Woodman  
Electrical & Computer Engineering  
Room Mapping Robot  
Adviser: W.T. Miller

Caroline Wuest  
Biology  
Developing the Technique for Genetic Engineering of the Red Alga Porphyra  
Adviser: Subhash Minocha

Jonathan Wurtz  
Physics  
Gamma Ray Polarimeter Simulation and Development  
Adviser: Mark McConnell

Matthew Young  
Physics  
On the Nonlinearity of Solar Cycles: Using Data to Drive Predictions  
Adviser: Marc Lessard

UNH Manchester Undergraduate Research Conference

Poster Presentations

Wednesday, April 25  
3:30–6 p.m.  
University Center  
Manchester

The UNHM 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.

Merima Ahmetovic  
History  
Rise and Fall of Slobodan Milosevic  
Adviser: John Resch

Desiree Akerley  
Biological Sciences  
Shadowing a Medical Examiner  
Adviser: Stephen Pugh

Millet Ali  
Biological Sciences  
EMT Certification Program  
Adviser: Patricia Halpin

Nicholas Bennett  
Biology  
Pharmacy Technician  
Adviser: Stephen Pugh

Haley Bergeron  
Undeclared  
Concepts of Utopian Societies  
Adviser: John Resch
Jessica Bissett  
Humanities  
Oppressed and Oppressor: Total Institutions and Individual Freedom  
Adviser: John Resch

Meagan Burd  
English  
Taj Mahal  
Adviser: Fred Metting

David Ciampa  
History  
American Culture of Capitalism: The Debate on Roosevelt’s New Deal 1933–1936  
Adviser: John Resch

Josie Colbert  
History  
Lincoln’s Cooper Union Speech: Public Reaction  
Adviser: John Resch

Josie Colbert  
History  
Julia Child  
Adviser: Robert Macieski

Chad Connors  
Aaron Green  
Michael Henenberg  
Damir Ibrahimovic  
Aaron Jarzombek  
Brandon McLaughlin  
Johnny Mom  
Evan Morse  
Edward Pulkowski  
Electrical Engineering Technology  
Brice Rader  
Bethany Ross  
Jonathan Schultz  
Skyler Swendsboe  
Matthew Vartanian  
Computer Information Systems  
Capstone Experience: Undergraduate Research Group in Speech at UNHM  
Advisers: James Bartoldus, Michael Jonas

Rebecca Cronk  
Biological Sciences  
Principles of Biology II Teaching Assistant Capstone  
Adviser: Patricia Halpin

Elizabeth Derderian  
History  
The Immigration Restriction League and the Immigration Act of 1924  
Adviser: John Resch

Victoria DiPippo  
Humanities  
Reformation: Luther’s Doctrines and Biblical Interpretations  
Adviser: John Resch

Ashley Eames  
Biology  

Jessica Normand  
Biological Sciences  
APS Video: The New Intoxication  
Advisers: Patricia Halpin, Stephen Pugh

Jennifer Evans  
Biological Sciences  
Prehospital Emergency Care: The EMT’s Role  
Adviser: Stephen Pugh

Nancy Fernandes  
Biology  
Sequencing Mitochondrial DNA: A Circle Approach  
Adviser: Sarah Kenick

Renelle Gagnon  
Biology  
Municipal Water Testing  
Adviser: Lorraine Doucet

Ryan Gardner  
Biology  
Bay of Pigs Invasion  
Adviser: Robert Macieski

Michael Gavin  
Undeclared  
Emergence of the Republican Party 1854  
Adviser: John Resch

Serena Hamelin  
History  
The Constitutionality of the Wagner Act  
Adviser: John Resch

Ashley Higgins  
Biological Sciences  
A Day in the Life of a Physician Assistant  
Adviser: Stephen Pugh

Brittany Houghton  
Biological Sciences  
One Day as an Emergency Medical Technician  
Adviser: Stephen Pugh

Kellie Howard  
Biological Sciences and Psychology  
Honduran Mission Team  
Adviser: Stephen Pugh

Naida Idrizovic  
Biology  
A Day at OB/GYN  
Adviser: Stephen Pugh

Aaron Jarzombek  
Computer Information Systems  
Android Mobile Joystick Controller for Seekur Robotic Systems  
Adviser: Karla Vogel

Adam Karolian  
Communication Arts  
The Retrosexual Man in Contemporary Advertising  
Adviser: Jeffrey Klenotic

Steven Keeler  
General Studies  
Meals on Wheels  
Adviser: Patrice Mettauer

Charles Kimball  
Politics and Society  
America’s Secret War  
Adviser: Robert Macieski

Kyle Kirwin (graduate student)  
History  
Korean War: MacArthur and American Politics  
Adviser: John Resch

Riley Lamontagne  
Politics and Society  
Money in politics, Citizens United vs. the FEC public opinion  
Adviser: John Resch

Rachel Lamy  
History  
Leaders in the Montgomery Bus Boycott  
Adviser: Robert Macieski
Matthew Leets
Biological Sciences
Organic Winemaking at Domaine Terre Rouge
Adviser: Stephen Pugh

Stephen Lemieux
History
The Spanish Civil War: The Abraham Lincoln Brigade
Adviser: John Resch

Erin MacLaren
English
Newport Folk Festival
Adviser: Fred Metting

John Maddaus III
Computer Information Systems
Embedded Database Design
Adviser: Karla Vogel

Rebecca Mason
Biological Sciences
The Role of HAUSP in the Mitochondrial Non-transcriptional p53 Apoptotic Pathway of IMR-32 Human Neuroblastoma Cancer Cells
Adviser: Charles Walker

Jonathon Mayland
History
McCarthyism
Adviser: John Resch

Lauren Montminy
Biological Sciences
Wildlife Rehabilitation: The Process and Rewards
Adviser: Stephen Pugh

Kristen Mosher
Business
UMST 531: Community Service Experience with Families in Transition (FIT)
Adviser: Patrice Mettauer

William Nichols
Biology
Fetal Development
Adviser: Patricia Halpin

Meagan O’Neil
Undeclared
Race and Politics: Brown v. Board of Education and Public Reaction
Adviser: John Resch

Lauren Pentasuglia
Biology
HACCP
Adviser: Lorraine Doucet

Kaeley Pinkham
Biology
To Drink or Not to Drink?
Adviser: Lorraine Doucet

Jessica Poznanski
Politics and Society

Jennifer Silva
Psychology
Citizenship and Immigration
Adviser: Patrice Mettauer

Juliette Reddy
Biological Sciences
Neurologist Job Shadow
Adviser: Stephen Pugh

Christopher Reekie
Computer Information Systems
Comprehensive Virtualization Documentation System
Adviser: Mihaela Sabin

Lindsay Rizzo
Communication Arts
Twentieth Century America
Adviser: Robert Macieski

Martha Routos
History
Roe v. Wade: Supreme Court and Public Reaction
Adviser: John Resch

Danielle Schmidt
History
History of Graffiti in America
Adviser: Robert Macieski

Danielle Schmidt
History
Gay Rights: Don’t Ask Don’t Tell Policy, 1993
Adviser: John Resch

Cynthia Siemens
Undeclared
Families in Transition
Adviser: Patrice Mettauer

Justin Thibeault
Computer Information Systems

Jacqueline Tims
Biological Sciences
SpEAK: Speech Experiment Accessible Knowledge System for Capstone Speech Project
Adviser: Michael Jonas

Justin Vankalken
History
Jazz Music
Adviser: Robert Macieski

UNH Manchester URC
Cinema Arts Day

Thursday, April 26
10 a.m.–1 p.m.
University Center
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.

Millet Ali
Jennifer Evans
Biological Sciences
The Secret Sense of the Inner Ear
Adviser: Patricia Halpin

Alyssa Bitsack
English
The Newport Folk Festival
Adviser: Fred Metting

Briana Bolton
Communication Arts
Hidden Truths
Adviser: Anthony Tenczar
Brian Burke
Communication
No Good Deed Goes Unpunished
Adviser: Anthony Tenczar

Andrew Casey
Communication Arts
Mobile Meal Time
Adviser: Jeffrey Klenotic

Sarah Cotton
English/Journalism
The Immigrant: A Conversation With My Papa
Adviser: Anthony Tenczar

Brittany Debelis
Communication Arts
The Ride
Adviser: Anthony Tenczar

Katelyn Dobbs
Communication Arts
The Story Behind Jew Pond
Adviser: Anthony Tenczar

Ashley Eames
Biology

Jessica Normand
Biological Sciences
APS Video: The New Intoxication
Advisers: Patricia Halpin, Stephen Pugh

Andrew Gibson
Communication Arts
Cows
Adviser: Anthony Tenczar

Andrew Gibson
Communication Arts
Untitled #1
Adviser: Anthony Tenczar

Matthew Gillespie
Communication Arts
High Fire—a Profile Documentary
Adviser: Anthony Tenczar

Matthew Gillespie
Communication Arts
The Morning Shift
Adviser: Anthony Tenczar

Jill Johnston
Biology
Horses Digestive System
Adviser: Patricia Halpin

Ryan Liston
Communication Arts
Life in Ireland
Adviser: Anthony Tenczar

Mollie Markins
Communication Arts
Stella’s Restaurant of Middle Street
Adviser: Anthony Tenczar

Elizabeth Mason
Communication Arts
Lessons for Life
Adviser: Anthony Tenczar

Rebecca Mason
Biological Sciences
Energy Production and Exercise
Adviser: Patricia Halpin

Kaeley Pinkham
Biology
Skeletal Muscle: Through the Eyes of a Skier
Adviser: Patricia Halpin

Erroll James Ponio
Communication Arts
The Hitman
Adviser: Anthony Tenczar

Erroll James Ponio
Communication Arts
“Don’t Go Away” Music Video
Adviser: Anthony Tenczar

Andres Reyes
Communication Arts
Riverview
Adviser: Anthony Tenczar

Andres Reyes
Communication Arts
The Q-Tip That Should Not Be
Adviser: Anthony Tenczar

Nicole Romanuk
Communication Arts
Club 47 Revived
Adviser: Fred Metting

Christopher Spencer
Communication
Just Do It.
Adviser: Anthony Tenczar

Rachael Stanley
Biological Sciences
Atrial Fibrillation
Adviser: Patricia Halpin

History Department Undergraduate Presentations

Thursday, April 26
12:30–2 p.m.
Memorial Union Building
Rooms 338/340 and 302

The History Department hosts a panel of undergraduate history majors, presenting research projects from their academic classes, research seminars, and honors theses.

MUB, Room 338

Session 1: An Age of Revolution

Moderator: Janet Polasky

Madeleine Beihl
History
From the Forest to the Freshet: The Development of the Upper Connecticut River Valley of New Hampshire, 1750–1820
Adviser: Jessica Lepler

Derek Kelly
History
People and the Press: The Role of the Press in the American and French Revolutions
Adviser: Janet Polasky

Alex Peterson
History and Political Science
A Revolution Within a Revolution: The Cherokee During the American Revolution
Adviser: Janet Polasky

Alexa Price
History
Loyalist Identities in Revolutionary New Hampshire
Adviser: Eliga Gould
Margaret Zoladkowski
History
Adviser: Janet Polasky

MUB, Room 340
Session 2: Race and Ethnicity in America
Moderator: Jeffrey Bolster

Dustin MacKay
History
If They Lack the Punch They Won’t Pull: The Crisis, Race Enterprises, and Professionalism in Manhattan, 1900–1920
Adviser: W. Jeffrey Bolster

Stephanie Moran
History
Shattered Bowls and Mirrors: Discussing the Differences Between Northern and Southern Death Practices Among 17th, 18th, and 19th Century African Americans
Adviser: W. Jeffrey Bolster

Kerry Murchie
History and Justice Studies
Irish Republican Army: Friend or Foe?
Adviser: Ellen Fitzpatrick

Jessica Tinios
History
You Can’t Expatriate Me, I’m Emigrating
Adviser: W. Jeffrey Bolster

MUB, Room 302
Session 3: Twentieth-Century Russia and America
Moderator: Gregory McMahon

Cory McKenzie
History and Philosophy
Orthodoxy in Exile: The Russian Church in America
Adviser: Cathy Frierson

Ella Nilsen
History
Exploring the Relationship Between the United States Government and the Press During the Vietnam War
Adviser: Yan Lu

Elizabeth Orlowicz
Marine, Estuarine and Freshwater Biology
Total War and the Masters of Surviving: Propaganda and Advertising of World War II Companies
Adviser: Marion Dorsey

Jillian Price
Anthropology and History
A Homogenous Mass of Human Clay: Musical Propaganda in World War I America
Adviser: Marion Dorsey

Eric Pugliano
History and Geography
Mapping of the Journeys of the Children of the Gulag
Adviser: Cathy Frierson

The Naked Arts—Creativity Exposed

Act II

Thursday, April 26
12:30–2 p.m.
Paul Creative Arts Center
Hennessy Theatre,

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.

Sara Bourgeau
Theatre and Dance
Set, Costume and Lighting Design for “The Memory of Water,” a Play by Shelagh Stephenson
Adviser: Szu-Feng Chen

Oliver Brennan
Music
Don’t Stop The Beat: An Introductory Taxonomy to the World of Electronic Dance Music
Adviser: Rob Haskins

Peter Kispert
English
Diving Drifting: The Roots of Fiction
Adviser: Thomas Payne
UNH Manchester URC Engineering Technology Senior Project Presentations

Friday, April 27
8:00 a.m.–Noon
University Center
Manchester

The UNHM Engineering Technology Program presents its annual Senior Project Presentation day. This event is the culmination of an academic year effort where full-time seniors formally present their projects to peers, faculty members, representatives and technical advisers of sponsoring companies, and special guests.

Brian Avery
Electrical Engineering Technology
G2 Screenorder
Adviser: David Forest

Richard Bouchard
Mechanical Engineering Technology
Strap Reduction on Metal Arch Assembly Machine
Adviser: Ralph Draper

Nathan Clasby
Electrical Engineering Technology
Reliable High Speed Digital Storage and Retrieval Test Mezzanine
Adviser: David Forest

Merritt Elmore
Mechanical Engineering Technology
Design of a Compressed Air Priority System for PSNH Merrimack Generating Station
Adviser: Ralph Draper

Kyle Gentle
Mechanical Engineering Technology
Thorium Free and 1500 Watt Electrode Assembly Automation
Adviser: Ralph Draper

Karen Ibey
Electrical Engineering Technology
Automated Functional Testing
Adviser: David Forest

Derek Lovely
Mechanical Engineering Technology
Flame-based Singeing Process for Nomex Products at Velcro USA, Inc.
Adviser: Ralph Draper

Brian Maltais
Electrical Engineering Technology
Pro Mariner Product Development
Adviser: David Forest

Matthew Penney
Mechanical Engineering Technology
Filling System for Degassed Oil Filled Cables
Adviser: Ralph Draper

James Shreenan
Electrical Engineering Technology
High Speed Taper Tension Control System
Adviser: David Forest

Ryan Thibeault
Mechanical Engineering Technology
Hull Penetrator Wire Twisting Process Improvement
Adviser: Ralph Draper

Corey Tong
Mechanical Engineering Technology
FDA Approved Validation of a Pharmaceutical Grade Parts Washer
Adviser: Ralph Draper

Ross Wilson
Mechanical Engineering Technology
Pin Welder Process Improvement Using Design of Experiments
Adviser: Ralph Draper

Parents Association Undergraduate Research Symposium

Welcome Breakfast with UNH Provost John Aber and Parents Association President Patricia Piecuch

Friday, April 27
9–9:30 a.m.
Memorial Union Building
Granite State Room

This informal gathering gives students, faculty, and attendees an opportunity to visit with UNH Provost John Aber and Parents Association President Patricia Piecuch before experiencing the large university-wide event that follows—the Parents Association Undergraduate Research Symposium.
High-quality undergraduate research is the hallmark of a University of New Hampshire education. With funds provided by the Parents Association, the University has been able to increase its support to students during the UNH Undergraduate Research Conference (URC). Helping to fund student innovation: it’s one of the many ways the Parents Association enhances the University’s academic mission.

UNH Parents working on behalf of students.
Parents Association
Undergraduate Research Symposium

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

Oral Presentations, Session A

Friday, April 27
9:30–10:40 a.m.
Memorial Union Building

MUB, Room 304

Ethnic Studies: The Matter of Difference and the Middle Ages, or Language, Faith, Race, and Time

Moderator and Adviser:
Cord Whitaker

MUB, Room 302

Ethnic Studies: African Literature: Reading and Writing the Postcolony

Moderator and Adviser:
Sandhya Shetty

Elizabeth Barker
English Teaching and Political Science
A Nigerian Spring: How to Make the Niger Delta Bloom, Again

Sarah Fenerty
English/Journalism
Emerging from the Dreamscape: Interior Lives, Exterior Realities in Nuruddin Farah’s Maps

Andrew Flood
Sociology
Transforming Characters in Nuruddin Farah’s Maps

Curtis Hines
English
Ken Saro-Wiwa and the Politics of Oil in Nigeria

Laura Yurkosky
English Teaching
Hand-in-Glove: Big Oil Corporations and Nigerian Dictators

Mia Marzelli
Art Studio
Adviser: Faina Bukher

Brittany Zorn
Psychology and Women’s Studies
Adviser: Faina Bukher

Kathryn Boyle-Steed
Psychology and Women’s Studies
Social Reactions to Women’s Disclosure of Partner Abuse
Adviser: Katie Edwards

MUB, Room 237

Feminism in Action: Women’s Studies Internships

Moderator: Faina Bukher

Jonathan DiTroia
International Business and Economics
Adviser: Faina Bukher

Jenna Dion
Women’s Studies
Adviser: Faina Bukher

Lauren Garza
Sociology and Women’s Studies
Adviser: Faina Bukher

Mia Marzelli
Art Studio
Adviser: Faina Bukher

Brittany Zorn
Psychology and Women’s Studies
Adviser: Faina Bukher

Kathryn Boyle-Steed
Psychology and Women’s Studies
Social Reactions to Women’s Disclosure of Partner Abuse
Adviser: Katie Edwards

MUB, Room 233

Feminist Issues in Contemporary Culture, Politics, and Hollywood Film

Moderator and Adviser:
Jennifer Borda

Hilary Juntwait
Communication
Where is G.I. Jane? Women’s Fight for Combat Positions in the Military

Eliza Mackintosh
English/Journalism and Communication
Women in Higher Education as Depicted in the Film “Mona Lisa Smile”

Julia Maldonado
Communication
Women and Hostile Work Environments: Representations of Sexual Harassment in North Country

MUB, Room 207

From Classroom to Cyberspace: Informational and Relational Processes in Education and Communication

Moderator: Sheila McNamee

Kendra Mack
Communication
Viral Visualizations: Online Infographics as Reflections of the Internet’s Informational Landscape
Adviser: Josh Lauer
Kelly Martin
Communication and Psychology
Kevin New
Hollie Roma
Communication
*Relational Processes in Education*
Adviser: Sheila McNamee

**MUB, Room 330**

*International Affairs: Business and Economics*

Moderator: Biniam Iyob

Benjamin Frehner
International Affairs and Business Administration
*German Employee Benefits and Their Effect on Corporate Culture*
Adviser: Molly Wallace

David Houle
International Affairs and Psychology
*Unemployment in Spain: Analyzing the Job Market for Youth and the General Population*
Adviser: Molly Wallace

Adrienne Messe
International Affairs and Anthropology
*Marketing Research of Chinese Consumerism*
Adviser: Molly Wallace

Samantha Thayer
International Affairs and Economics
*Welfare Expenditures and Global Competition as Reflected in the French Government and Economy*
Adviser: Molly Wallace

Mark Thorne
International Affairs and Russian
*Monetary Intervention: The Currency We Value*
Adviser: Molly Wallace

**MUB, Room 332**

*International Affairs: Language, Regionalism, and Separatism*

Moderator: Jessica Robles

Elizabeth Gottsegen
International Affairs and Psychology
*The Power of Language: Linguistic Effects on Social Tension Throughout the Regions of Spain*
Adviser: Molly Wallace

Adam Harr
International Affairs and Linguistics
*Motivations and Changes in French Language Planning*
Adviser: Molly Wallace

Colin Kelley
International Affairs and Business Administration
*Revitalization: Breton Stages a Comeback*
Adviser: Molly Wallace

Alex Miller
International Affairs and Political Science
*Linguistic Divisions and Partisanship in Belgium*
Adviser: Molly Wallace

Brendan Sheehan
International Affairs and Political Science
*The End of the ETA and the Rise of the Bildu?*
Adviser: Molly Wallace

Athina Simolaris
International Affairs and Spanish
*A Nation Divided: Basque Nationalism and Resistance Towards a Unified Spanish State*
Adviser: Molly Wallace

**MUB, Room 334**

*International Affairs: Moving Across Borders: Immigration, Trafficking, and Study Abroad*

Moderator: Tom Haines

Justin Fairbanks
International Affairs and Anthropology
*Who Can Be a Spaniard? The Effects of Spanish Policies on the Discrimination of Ethnic Minorities*
Adviser: Molly Wallace

Denise Fonseca
International Affairs and Communication
*The Effects of Prostitution Policy on Human Trafficking in Italy*
Adviser: Molly Wallace

Emilie Hall
International Affairs and Spanish
*Costa Rica: An Emigration Anomaly*
Adviser: Molly Wallace
Gwynneth Heaps  
International Affairs and Finance  
Great Migrations: The Effects of Immigration on the Italian Economy and Government Regulations  
Adviser: Molly Wallace

Jiyoung Kwak  
International Affairs and Sociology  
Why South Korean Students Study in the United States  
Adviser: Molly Wallace

Katty Medina  
International Affairs and Business Administration  
Hispanic Business Professionals in 21st Century Spain  
Adviser: Molly Wallace

MUB, Room 336  
International Affairs: Politics and Protest  
Moderator: Molly Wallace

Kendall Clark  
International Affairs and Sociology  
The Practice of Populism in Argentina: A Comprehensive Study of Twentieth Century Argentinean Political Leaders  
Adviser: Molly Wallace

Thomas Dolzall  
International Affairs and History and Russian  
Faltering Hegemony: United Russia and Party Pluralism in Putin’s Russia  
Adviser: Molly Wallace

Zachary Field  
International Affairs and Sociology  
Italian Civic Participation: A Community Phenomenon  
Adviser: Molly Wallace

Chelsea Moyer  
International Affairs and Political Science  
Social Movements and Political Change in Morocco  
Advisers: Jeannie Sowers, Molly Wallace

Erin Powell  
International Affairs and German  
Identity and Nationalist Politics in Post-World War II Austria  
Adviser: Molly Wallace

Eranis Vizcaino  
International Affairs and Spanish  
Ineffective Protests  
Adviser: Molly Wallace

MUB, Room 203  
Philosophy and Methods Research in Outdoor Education  
Moderator and Adviser: Brent Bell

Renee Bernier  
Outdoor Education and Social Work  
Experiential Education Philosophy: Intrinsic Moral Values

Benjamin Chase  
English Teaching  
Experiential Education Philosophy: The Traditional School Revised

Natalie Fortier  
Outdoor Education  
Experiential Education Philosophy: The Role of Risk

Yojin Higashibaba  
Outdoor Education  
Experiential Education Philosophy: The Search for Higher Truth

Thomas Weaver  
Outdoor Education  
Wilderness Medical Training Requirements for Outdoor Orientation Programs

MUB, Strafford Room  
Studies in Spanish Syntax 1  
Moderator and Adviser: John Chaston

Kate Brock  
Spanish  
Distinguishing que, el que, el cual in Spanish Language Print Media

Ann Emmerling  
Spanish  
Give me an A: Looking at UNH Students’ Understanding of the Spanish Personal a

Sean Farley  
Spanish  
Article and Noun Agreement in Spanish: A Minor or Major Detail?

Alyssa Freedman  
Psychology and Spanish  
Passive se and ser in Three Spanish Language Magazines: Usages and Styles Compared

Marilyn Goscinski  
Spanish  
The Spanish Preterite and Present Perfect in Spain and Cuba: Usages Compared

Hilary Miller  
Chemistry and Spanish  
Regional Variation in the Occurrence of Spanish loísmo, leísmo, and laísmo

MUB, Room 321  
The Rise of China: War and Exports  
Moderator: Michael Cole

Patricia Donahoe  
International Affairs and Political Science  
China’s Changing Outlook: Understanding China’s Arms Export Policy  
Adviser: Lawrence Reardon

Duncan Fleming  
Political Science  
The Sino-Soviet Split  
Adviser: Lawrence Reardon
Parents Association Undergraduate Research Symposium

Poster Presentations, Session A

Friday, April 27
9:30–10:40 a.m.
Memorial Union Building
Granite State Room

Lisa Armstrong
Christina Polito
Nursing
Two Cultures of Caring: A Comparative Study of Nurses’ Perceptions and Experiences of Caring for People Within a Hospice Context in the United Kingdom and the United States
Adviser: Carol Williams-Barnard

Heather Balch
Psychology
Correlates of Authenticity Doubts
Adviser: Edward Lemay

Diana Bartash
Stephanie Hemway
Nursing
Perceptions of Reasons for Tobacco Use Among College Students
Advisers: Susan Fetzer, Carol Williams-Barnard

Madeline Bishop
International Affairs and Anthropology
Authenticity and Identity-making: Capoeira in Boston and New York
Adviser: Meghan Howey

Andrew Blake
Neuroscience and Behavior
Benjamin Wormwood (graduate student)
The Effects of Subicum on Pre-frontal Cortex in Spatial Memory Tasks
Adviser: Robert Mair

John Bucci (research scientist)
Denise Jurczyszak
Biochemistry, Molecular and Cellular Biology
Mitochondrial DNA and Real Time PCR to Detect Fecal Sources in Surface Water
Adviser: William McDowell, Inga Sidor

Kimberly Buchwald
Psychology
Peer Influence on Adolescent Substance Use
Adviser: Ellen Cohn

Rebecca Butz
Candace Stohl
Psychology
Effects of Interpersonal Trauma Across the Lifespan on Physical and Mental Health: A Study of College Women
Adviser: Katie Edwards

Daniel Buzzell
Lauren Flanagan
Neuroscience and Behavior
Benjamin Wormwood (graduate student)
The Effects of Subicum on Pre-frontal Cortex in Spatial Memory Tasks
Adviser: Robert Mair

Amanda Cavanaugh
Zoology
Traveling Salesperson Problem in Pigeons
Adviser: Brett Gibson

Andrew Clark
Rachel Fredette
Animal Science: Pre-veterinary Medicine
Ovarian Mapping: Tracking the Recruitment, Growth, and Regression of Ovarian Follicles in Dairy Cattle
Adviser: David Townson

Margaret Donovan
Nutrition
A Correlative Study of Perceived Stress and Emotional Support with Weight Gain in College Students: Expanding the Young Adults Eating and Active for Health Project
Advisers: Kendra Kattleman (South Dakota University), Jesse Morrell

Patrick McManus
Political Science
International Influence on China’s Economic Reform
Adviser: Lawrence Reardon

Matthew Dennehy
Political Science
Democracies and War
Adviser: Lawrence Reardon

David Lefkin
Political Science
The UN and Syria: Responding to Oppression
Adviser: Lawrence Reardon

Christopher Lynch
Political Science
Arab Spring
Adviser: Lawrence Reardon

Stephanie Weiner
International Affairs and Political Science
Malvinas Miscalculation: The Argentine Invasion Error
Adviser: Lawrence Reardon

John Bucci (research scientist)
Denise Jurczyszak
Biochemistry, Molecular and Cellular Biology
Mitochondrial DNA and Real Time PCR to Detect Fecal Sources in Surface Water
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A Correlative Study of Perceived Stress and Emotional Support with Weight Gain in College Students: Expanding the Young Adults Eating and Active for Health Project
Advisers: Kendra Kattleman (South Dakota University), Jesse Morrell
Natalie Gatlin  
Occupational Therapy  
Evaluating the Effectiveness of a Goal-directed Intervention on the Social Interaction of Youth with Neurodevelopmental Disabilities  
Adviser: Lou Ann Griswold

Katrina Heisler  
Danielle Van Eron  
Nursing  
A Descriptive Study of Undergraduate Contraceptive Attitudes Among Students at the University of New Hampshire  
Adviser: Joyce Cappiello

Jessica Hinkley  
Liana Newcombe  
Nursing  
Understanding the Experience of Weight Gain and Body Image During Adolescent Pregnancy  
Adviser: Carolyn Tobin

Rebecca Keyes  
Nursing  
Helping Babies Breathe: Testing Its Implementation in Rural Uganda  
Adviser: Gene Harkless

Calla Lachance  
Communication Sciences and Disorders  
Identifying Early Markers in Autism  
Adviser: Rae Sonnenmeier

Riley Laramore  
Michelle Maher  
Caitlin Pascoe  
Jessica Skalinski  
Nutrition  
Seeing Stars  
Advisers: Gale Carey, Jesse Morrell

Stacey MacKinnon  
Kinesiology  
Collegiate Recruiting  
Adviser: Heather Barber

Richard Madol  
Biochemistry, Molecular and Cellular Biology  
Healthy Homes  
Adviser: Semra Aytur

Kristen Manning  
Nursing  
A Community Approach: Improving the Health and Wellness of People with Intellectual Disabilities  
Adviser: Joan Hahn

Erin McKeon  
Nursing  
Nurses’ Experiences of Providing Prenatal Care to Immigrant Women  
Adviser: Carolyn Tobin

Erin Parnell  
Nursing  
Midwives’ Experiences of Providing Women-centered Care to Low-risk Women  
Adviser: Carolyn Tobin

Allison Pendergast  
Psychology and Justice Studies  
Come Around to My Point of View: The Effect of Loaded and Legal Language on Mock Jury Decisions  
Adviser: Ellen Cohn

Rose Stanzione  
Nutrition  
Food System Indicators in Selected Towns in New Hampshire  
Adviser: Joanne Burke

Briana Terrill  
Nursing  
Identifying Gaps in Perceived Ability: Promoting Exercise in Young Adults with Disabilities  
Advisers: Pamela Dinapoli, Carol Williams-Barnard

Sarah Vlachos  
Nursing  
Nurse Satisfaction in Caring for Elders  
Adviser: Joan Hahn

William Whipple  
Neuroscience and Behavior  
The Traveling Salesman Problem in Rats  
Adviser: Brett Gibson

Lindsey Wright  
Sustainable Agriculture and Food Systems  
Do Forest Edges Mediate Community Invasibility in Pastures?  
Adviser: Richard Smith

Caroline Wuest  
Biology  
Developing the Technique for Genetic Engineering of the Red Alga Porphyra  
Adviser: Subhash Minocha

Amy Wuorio  
Nursing  
Adolescent Perceptions on Teenage Pregnancy in an Urban New England School Setting  
Advisers: Pamela Dinapoli, Gene Harkless

Julia Zamarchi  
Health Management and Policy  
Asthma Among Older Adults in NH: How They Manage and Control Their Condition  
Advisers: Semra Aytur, Rosemary Caron

MUB, Granite State Room  
Social Work: Extraordinary Experiences!

Senior social work students complete internships in a variety of agencies that address social justice issues or work with people in need of assistance. Examples include agencies focused on health care, education, adoption, corrections, unemployment, homelessness, and refugee assimilation to U.S. culture. This year approximately 20,000 internship hours will supplement students’ classroom learning and promote the University’s commitment to community engagement. Their posters reflect the variety, complexity, and contributions they have made to these agencies.

Moderators: Gretchen Bean, Martha Orttman

Stephanie Brown  
Social Work  
The Importance of Illness Management Recovery (IMR) in the Mental Health Community  
Adviser: Gretchen Bean

Sarah Carroll  
Social Work  
Helping Seniors Remain in their Homes: The Social Worker’s Role  
Adviser: Gretchen Bean
Parents Association Undergraduate Research Symposium

Oral Presentations, Session B

Friday, April 27
10:50 a.m.–2:50 p.m.
Memorial Union Building

MUB, Rockingham Lounge

Comm-entary: The Undergraduate Journal of Communication
10:50 a.m.–2:50 p.m.
Moderator: Melissa Deem

Alexander Bourne
Communication
Danielle Olean
Communication
Comm-entary: Community Outreach
Adviser: Melissa Deem

Mary Callaghan
Yu-Chu Cheng
Communication
Kelly Martin
Communication and Psychology
Comm-entary: Manuscript Reviewing
Adviser: Melissa Deem

Claire Cole
Hilary Juntwait
Jaime Sheppard
Communication
Comm-entary: Forum
Adviser: Melissa Deem

Elizabeth Griffith
Communication and Women's Studies
Ruth McBain
Julia Pelczarski
Communication
Comm-entary: Social Media and Publicity
Adviser: Melissa Deem

Elise Perron
Christopher Sawyer
Patrick Toomey
Communication
Comm-entary: Production, Design and Fundraising
Adviser: Melissa Deem

MUB, Room 340

Contemporary Debates in Latin American Politics
Moderators: José Carrasquillo, Mary Malone

Danielle Baker
Psychology and Justice Studies
Migrant Workers in Costa Rica: Why Is There So Much Controversy?
Adviser: Mary Malone

Maria Carrasquillo
Political Science and Justice Studies
Migrating South Instead of North: Examining Immigration Trends in Central America
Adviser: Mary Malone

Keper Connell
International Affairs and Spanish
Can an Army of Teachers Replace an Army of Soldiers? Evidence from Costa Rica
Adviser: Mary Malone

Kyle Murphy
Political Science and History
The Pink Tide: Where Did It Come From, and Where Is It Going?
Adviser: Mary Malone

MUB, Room 203

Effects of Mass Media Campaigns
Moderator and Adviser: Mark Hungerford

Andrew Cardello
Management
ExxonMobil Natural Gas Commercial
Camilla Cooper  
Communication and Political Science  
*Gender Representation in the Media: The Outcomes of Living in a Patriarchal Society*

Jessica Kierstead  
Communication and Political Science  
*Every Woman Has an Inner Goddess: Analyzing Jennifer Lopez's Razor Commercial*

Lindsay Lemieux  
Communication  
*What is Beautiful? The Counter-narrative to Dove Commercials*

Katherine Maxwell  
Communication  
*Rap's Finest Confronts Commander in Chief*

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MUB, Room 304  
**Ethnic Studies: Postcolonial Fiction: Salman Rushdie and Beyond**

Moderator: Sandhya Shetty  
Kelsey Brandon  
English  
The Voice of the Colonized: Salman Rushdie's Literary Empire  
Adviser: Sandhya Shetty

Emily Bryant  
Equine Studies  
Following Haroun: An Analysis of Salman Rushdie's Great 'Children's Novel'  
Adviser: Sandhya Shetty

Daniel Healy  
English  
Teaching Dual Market Economic Theories Through Literature  
Adviser: Reginald Wilburn

Peter Kispert  
English  
Indigenous Women in the Native Novel  
Adviser: Siobhan Senier

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MUB, Room 321  
**From Surviving to Thriving: The Role of International Trade**

Moderator: Alvina Snegach  
Jennifer Ballentine  
Political Science  
U.S.-Latin American Conflict  
Adviser: Lawrence Reardon

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Samantha Woods  
Anthropology  
*Curating Historic Documents: Collaborations with Wampanoag Elders*

Adviser: Siobhan Senier

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Jesse Childs  
Political Science  
*Economic Inequality: How States Pursue Economic Prosperity in the International Community*

Adviser: Lawrence Reardon

Patricia Donahoe  
International Affairs and Political Science  
Problem Revisited: Understanding China's Arms Export Policy  
Adviser: Lawrence Reardon

Alex Miller  
International Affairs and Political Science  
Attaining Independence: Moving Toward Renewable Energy  
Adviser: Lawrence Reardon

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MUB, Room 207  
**Honors Projects in Communication**

Moderator: Danielle Pillet-Shore  
Paige Clairmont  
Communication  
Taboo Talk and Social Relationships  
Adviser: Danielle Pillet-Shore

Danielle Flynn  
Communication  
The Socioeconomic Impact of Dams in Developing Communities in Belize  
Adviser: Danielle Pillet-Shore

Kendra Mack  
Communication  
Code as Sword: How the Concept of Information Warfare Fabricates Digital Heroes, Adversaries, and Victims  
Adviser: Joshua Meyrowitz

Kelly Martin  
Communication and Psychology  
The Student-consumer: Implications of a Metaphor on Higher Education  
Adviser: Sheila McNamee
MUB, Room 330

International Affairs: Economics, Culture, and Development

Moderator: Gregg Orifici

Nicolas Farr
International Affairs and Political Science
How Mega Sporting Event Preparations are Affecting Development in Rio de Janeiro
Adviser: Molly Wallace

Zander Fogg
International Affairs and Environmental and Resource Economics
Tourism and Authentic Culture in France
Adviser: Molly Wallace

Marissa Lucas
International Affairs and Communication
Cultural Factors Shaping Spain’s Economic Stagnation
Adviser: Molly Wallace

Stephanie E. Morris
International Affairs and Russian
No Country for Old Men: Russia’s Male Demographic Crisis
Adviser: Molly Wallace

Tawny Saez
International Affairs and Anthropology
Community-based Tourism in the Brazilian Amazon: Anã Case Study, Balancing Development and Conservation
Adviser: Molly Wallace

MUB, Room 334

International Affairs: Environmental Policies and Impacts

Moderator: Jennifer Purrenhage

Madeline Bishop
International Affairs and Anthropology
Climate Change, Cosmology, and Cultural Resilience: An Andean Case Study
Adviser: Molly Wallace

Peter Calhoun
International Affairs and Civil Engineering
Examining the Structure of Relationships between Transnational Corporations, Governments, and Environmental Policy: The Case of Texaco in the Ecuadorian Amazon
Adviser: Molly Wallace

Ryan Greenwood
International Affairs
Rose-colored Water: Why the Jordanian Government is Not Addressing Dangerous Levels of Radium in the Disi Aquifer
Adviser: Molly Wallace

MUB, Room 336

International Affairs: Identity and Culture—Implications for Health, Politics, and Economics

Moderator: Richard Parks

Michelle Estee
International Affairs and French
The Effects of Globalization on French Health and Gastronomy
Adviser: Molly Wallace

Tess Milliken
International Affairs and Sociology
Gender Inequality in Spain and How it Affects the Emotional Health of Spanish Mothers with Careers
Adviser: Molly Wallace

Carleen Rickarby
International Affairs and Art Studio
A Shift in Culture: Contemporary Art in France
Adviser: Molly Wallace

Eva Skewes
International Affairs and History
Liberté, Égalité and Fraternité: French Identity and the Construction of National History
Adviser: Molly Wallace

Basil Thomson
International Affairs and Spanish
Constructing Identity in Buenos Aires: Soccer’s Violent Barra Brava
Adviser: Molly Wallace
MUB, Room 338

**International Affairs: Policies in International and Comparative Perspective**

Moderator: Benjamin Cole

**Desiree Carron**
International Affairs and Civil Engineering
*A Comparative Study of Public Transportation Systems in Germany and the United States*
Adviser: Molly Wallace

**Conor Hughes**
International Affairs and Political Science
*International Heartache and Abduction: Japan vs. the World*
Adviser: Molly Wallace

**Matthew Jones**
International Affairs and Communication
*Brazil and the United States: Entertainment Law and the Creative Process*
Adviser: Molly Wallace

**Sean Waters**
International Affairs and French
*Genetically Modified Organisms: Policies on Labeling in the United States and the European Union*
Adviser: Molly Wallace

**Kelly Whittier**
International Affairs and Health Management and Policy
*Aid Influx into Madagascar: The Damage of the U.S. Sanctions Effect*
Adviser: Molly Wallace

MUB, Room 237

**Multidisciplinary Session 1: Research Topics in Kinesiology, Health Management, and Exercise Science**

Moderator: Patricia Craig, Dain LaRoche

**Camilla Brett**
Melissa Powers
Kinesiology and Physical Education
*Researching the Lived Experiences of Young Adults with Intellectual Disabilities on a College Campus*
Adviser: Michelle Grenier

**Catherine Lafferty**
Health Management and Policy
*Addressing Persistent Public Health Issues via Academic Community Partnerships*
Advisers: Rosemary Caron

**Christopher Logan**
Kinesiology
*Lower-extremity Forces Influence the Energy Cost of Walking*
Adviser: Dain LaRoche

**Paige Ricci**
Health Management and Policy
*The Pregnancy Project: Impact of Ultrasound Use During Pregnancy Care*
Adviser: Robert McGrath

**Samantha Scarneo**
Kinesiology
*Physiological Effects of Acute Bouts of Aquatic and Land Based Sprinting*
Adviser: Summer Cook

**Charlotte Slate**
Exercise Science
*Static Balance Testing Predicts Gait Performance in Middle-aged and Older Women*
Adviser: Dain LaRoche

MUB, Room 233

**State Formation and Survival in the Anarchic World**

Moderator: Victoria Adewumi

**Andrew Coukos**
Political Science
*Establishing Southern Sudan: Religion, Ethnicity, and Nation-building*
Adviser: Lawrence Reardon

**James Lennon**
Political Science
*The Necessity of Colonization: A Defense of the Undefendable*
Adviser: Lawrence Reardon

**Patrick Marvin**
Political Science and Justice Studies
*A Grand Strategic Vision for the 21st Century*
Adviser: Lionel Ingram

**Brian O’Connor**
Political Science
*Seeking Democracy Under Untenable Circumstances: The Case of Kurdistan*
Adviser: Lawrence Reardon

MUB, Strafford Room

**Studies in Spanish Syntax 2**

Moderator: John Chaston

**Andrew Becker**
International and Development Economics and Spanish
*What’s His Style? A Spanish Narrative Analysis of Past Reference Verb Usage in The Patagonian Express*
Adviser: John Chaston

**Kayleigh Mitchell**
Political Science and Spanish
*Se what?! Identification and Analysis of the Most Common Uses of Spanish se*
Adviser: John Chaston

**Laura Simard**
Spanish
*Se Usage and Meaning in Laforet’s El Aguinaldo*
Adviser: John Chaston
Emily Spicer  
Spanish  
Identifying Meaning Within Imperfect and Preterite Usage in Spanish Narrative  
Adviser: John Chaston

Abby Zelenka  
Spanish  
Don’t Know What to Do? An In-depth Look at the Passive ser and Passive se Usage and Style in Literary Texts  
Adviser: John Chaston

Samantha Bouvier  
Kasey Lynch  
Psychology  
Kathryn Boyle-Steed  
Psychology and Women’s Studies

Saige Jutras  
Psychology and Justice Studies  
Intimate Partner Violence: The Relationship Between Stages of Leaving and Personal, Relational, and Social Factors  
Advisers: Kristiana Dixon, Katie Edwards

Kathryn Boyle-Steed  
Psychology and Women’s Studies  
Annie Crossman  
Ryan Hebert  
Arianna Schaff  
Psychology  
Support or No Support? Questioning Community Support Given to LGBT College Students Experiencing Intimate Partner Violence  
Advisers: Katie Edwards, Katelyna Sylaska

Bradley Chamberlain  
Biochemistry, Molecular and Cellular Biology  
Are Matrix Metalloproteinases (MMPs) Present in Skeletal Muscle of the Spiny Dogfish Shark, Squalus acanthias?  
Adviser: Paul Tsang

Jessica Child  
Biochemistry, Molecular and Cellular Biology  
The Effects of Environmental Enrichment on Attention in Rats  
Adviser: Jill McGaughy

Mackenzie Colburn  
Sociology and Justice Studies  
Gendered Glass Ceilings in American Law Firms  
Adviser: Rebecca Glauber

Matthew Cotton  
Elora Demers  
Kendall Milkey  
Biochemistry, Molecular and Cellular Biology

Megan Thompson (graduate student)  
A Screen to Identify Mutants with a Sodium-induced Root Skewing Phenotype  
Adviser: Estelle Hrabak

Nicholas Dowhaniuk  
Geography  
Monitoring Forest Loss and Population Growth in a Biodiversity Hotspot of Africa  
Adviser: Joel Hartter

Benjamin Duckless  
Biology  
Influence of Cytoskeletal Stress Filaments on Cell Death in Human Cervical Carcinoma  
Adviser: David Townsend

Michele Forrestall  
Geology  
Aftershock Patterns of Oceanic Intraplate Strike Slip Earthquakes and Implications for Anomalous Aftershock Behavior of Oceanic Transform Fault Earthquakes  
Adviser: Margaret Boettcher

Valerie Gauthier  
Jordan Strand  
Psychology and Justice Studies  
Amanda Mead  
Psychology  
Pressure to be Perfect: Relational and Societal Contributors to College Women’s Body Dissatisfaction and Disordered Eating Behaviors  
Adviser: Katie Edwards

Jeffrey Hodgdon  
Music  
Kinds of Online Social Support for Cancer Patients and Caregivers  
Adviser: Ellen Cohn

Matthew Marquis  
Biology  
Production of Barnacle Cement in Plants  
Adviser: Subhash Minocha

Kayla O’Meara  
French  
L’écrivain en Souffrance: Henry Miller à Dijon  
Adviser: Nadine Berenguier

Hannah Paroline  
Chemistry  
Amide N-Oxides: Potential Oxygen Atom Transfer Agents?  
Adviser: Arthur Greenberg
<table>
<thead>
<tr>
<th>Name</th>
<th>Major</th>
<th>Title</th>
<th>Advisers</th>
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<tbody>
<tr>
<td>Corey Peden</td>
<td>Nursing</td>
<td>An Investigative Study of Nurses’ Attitudes Towards Death and The Relation to Coping Strategies After Patient Death</td>
<td>Gerard Tobin, Carol Williams-Barnard</td>
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<td>Rachel Trainque</td>
<td>Psychology</td>
<td>UNH Students’ Attitudes Toward Bisexuality</td>
<td>Rebecca Glauber</td>
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<td>Alli Puchlopek</td>
<td>Sociology</td>
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<td>Amanda Regis</td>
<td>Sociology</td>
<td>The Motherhood Earnings Penalty: A Study of Inequity Between Daycare Providers and Elementary School Teachers</td>
<td>Rebecca Glauber</td>
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<td>Erika Swanson</td>
<td>Integrated Applied Mathematics</td>
<td>Chlorine Corrosion in a Biomass Boiler</td>
<td>Stephen Wineberg</td>
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<td>Christine Turner</td>
<td>Political Science and Spanish</td>
<td>The Students’ Vote</td>
<td>Dante Scala</td>
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<td>Alison Wirshing</td>
<td>Biology</td>
<td>Genetic Engineering of Dunaliella Species to Improve Use in Biofuel Production</td>
<td>Leland Jahnke, Subhash Minocha</td>
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<td>Katherine Wooten</td>
<td>Neuroscience and Behavior</td>
<td>Are Female Rats Prone to the Same Stress-induced Memory Deficits as Male Rats in a Visible Platform Task in the Morris Water Maze?</td>
<td>Robert Drugan</td>
</tr>
<tr>
<td>English 602 Advanced Professional and Technical Writing Posters</td>
<td>Moderator and Adviser: Christy Beemer</td>
<td>Nicole Avedikian International Business and Economics and Marketing</td>
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<td>Dustin Swanson</td>
<td>Biomedical Science</td>
<td>Adam</td>
<td>Rebecca Glauber</td>
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<tr>
<td>Chloe Swift</td>
<td>Undeclared</td>
<td>Adam</td>
<td>Rebecca Glauber</td>
</tr>
<tr>
<td>Social Work: Extraordinary Experiences!</td>
<td>Moderators: Gretchen Bean, Martha Ortmann</td>
<td>Elyssa Arriel Social Work Easing the Challenges of Aging: Benefits of Continuous Care Retirement Communities</td>
<td>Martha Ortmann</td>
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<tr>
<td>Rebecca Bergman</td>
<td>Social Work</td>
<td>The Refugee Experience: Overseas Processing</td>
<td>Martha Ortmann</td>
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<tr>
<td>Sarah Cowart</td>
<td>Social Work</td>
<td>Exploring the Impacts of I Am Moving, I Am Learning</td>
<td>Martha Ortmann</td>
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<tr>
<td>Stacey Hoang</td>
<td>Social Work</td>
<td>The Waysmeet Center: A Model of Inclusiveness</td>
<td>Martha Ortmann</td>
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<tr>
<td>Jocelyn Jenkins</td>
<td>Social Work</td>
<td>Social Skills Group for Children on the Autism Spectrum</td>
<td>Martha Ortmann</td>
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<tr>
<td>Carla Joseph</td>
<td>Social Work</td>
<td>Hand in Hand: A Collaborative Approach to Medical Transportation</td>
<td>Martha Ortmann</td>
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<tr>
<td>Lynn Mooney</td>
<td>Social Work</td>
<td>21st Century Center: Impact on Youth</td>
<td>Martha Ortmann</td>
</tr>
<tr>
<td>Eleanor Wilson</td>
<td>Social Work</td>
<td>Barriers to Education for Homeless Youth</td>
<td>Martha Ortmann</td>
</tr>
</tbody>
</table>
Parents Association Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 27
1:40–2:50 p.m.
Memorial Union Building

MUB, Room 237

An Art Historical Take on Cinema
Moderator: Patricia Emison

Catherine Armstrong
Art History
An Art Historian Looks at Film: Michael Fried and His Mentors
Adviser: Patricia Emison

Maisea Bailey
Art History
Post-war Politics and Film: A Brief Look at Benjamin, Malraux, and Bazin
Adviser: Patricia Emison

Sarah Zankowski
Art History
The Director as Artist
Adviser: Patricia Emison

MUB, Room 233

Communication and the Body
Moderator: Mardi Kidwell

Christina Forte
Communication
Face, Gaze, and Laughter in Interaction
Adviser: Mardi Kidwell

Luke Franco
Communication
Validating Claims: How We Negotiate Winning a Game
Adviser: Mardi Kidwell

Peter Geyer
Communication
Joint Attention in an Episode of Beer Making
Adviser: Mardi Kidwell

Molly McKeown
Communication
Storytelling and the Embodied Organization of Participation
Adviser: Mardi Kidwell

MUB, Theatre I

Dramatic Innovations: Original Dramas Inspired by Medieval Literature
Moderator and Adviser: Cord Whitaker

John Aquino
Derek Byron
Kelli Cacciotti
Brianna Cameron
Martha Kobus
English
Mark McGwin
Communication
Sholanna Pemberton
English Teaching
Oliver Thomas
English/Journalism
Dramatic Innovations: Original Dramas Inspired by Medieval Literature (The Wild Men)

Kai Beaton
English and German
Nicholas Davies
English and Business Administration
Tristen Krakie
English and Spanish
Holly Linseman
Anthropology
Kaitlyn Shouse
English Teaching
Brian Ward
English/Journalism
Dramatic Innovations: Original Dramas Inspired by Medieval Literature (Chaucer's Knights)

Rachel Carter
English and Classics
Patrick Downs
Matthew Laurion
Adam Spear
Allison Zorawowicz
English
Andrew Gilbert
English/Journalism
Peter Rizzo
English and Philosophy
Dramatic Innovations: Original Dramas Inspired by Medieval Literature (Lords & Ladies)

MUB, Room 302

Exploring Research in Sociology
Moderators: Rebecca Glauber, Tom Safford

Amber Carlson
Sociology and Justice Studies
Neighborhood Disadvantage and Student’s Perception of Health: An Analysis of the Current and Prior Health of College Students Once Moving to College
Adviser: Rebecca Glauber

Heather Dean
International Affairs and Sociology and Justice Studies
Suicide Survivors: A Comparative Analysis of Reactions to Suicide in China and the United States
Adviser: James Tucker

Zachary Field
International Affairs and Sociology
Media Perceptions and Public Affairs Apathy in the Politically Inexperienced: A Replication
Adviser: Karen Vangundy

Makenzie Keene
Sociology
The Effect of Working for Pay During the School Year on Educational Achievement
Adviser: Rebecca Glauber

Halie Olszowy
Sociology
The Idea of Necessity: Shopping Trends among College Students
Adviser: Catherine Moran
Alexandru Panait
Sociology
The Influence of Politics, Religious Attendance, and Education on Volunteering Rates
Adviser: Lawrence Hamilton

MUB, Room 321
Issues in Anthropology
Moderator: Meghan Howey

Megan Barry
Anthropology
Sustainability and the Humanities
Adviser: Siobhan Senier

John DeGennaro
Anthropology
Confederate in Belize: An Archeological and Ethnohistoric Investigation of Colonial Artifacts at the McRae-Stallworth Site Near Saturday Creek
Adviser: Eleanor Harrison-Buck

Sasha Thalheimer
Anthropology and Russian
Fiber Arts in the Early Soviet Period
Adviser: Ronald LeBlanc

MUB, Room 332
Multidisciplinary Session 3: Research Topics in Earth Science, Biology, and Chemical Engineering
Moderator: Xiaowei Teng

Peter Abdu
Wildlife and Conservation Biology
Size Analysis and Development of Female Bluefin Tuna Gonads in the Gulf of Mexico
Adviser: William Howell

Jenny Jing
Biomedical Science
Eating Disorders and Obesity: Two Sides of the Same Coin
Adviser: Jennifer Esala

Brian McConnell
Seth Tremblay
Chemical Engineering
Floating Photobioreactors for Microalgae Growth
Adviser: Ihab Farag

Emily Smith
Chemical Engineering
Enhancement of Bio-oil by Pervaporation
Adviser: Ihab Farag

Cathleen Turner
Earth Sciences
Understanding Organic Carbon Cycling in the Great Bay: A Numerical Approach
Adviser: Linda Kalnejais

MUB, Room 334
Multidisciplinary Session 2: Research Topics in the Classics and Languages
Moderator: Dennis Britton

Michael D’Angelo
Classics
Ovid the Vegetarian? Pythagoras’ Speech in Metamorphoses 15.60–478
Adviser: Susan Curry

Kelsey Liebenson-Morse
English
Dante Gabriel Rossetti
Adviser: Rebecca Karo

Ashley Morse
Russian and German
Nastasia Kairova and Dmitry Karamazov: Carnality, Crimes of Passion, and Compassionate Acquittals in Dostoevsky’s Writings
Adviser: Ronald LeBlanc

Kayla O’Meara
French
L’écrivain en Souffrance: Henry Miller à Dijon
Adviser: Nadine Berenguier

MUB, Room 336
Multidisciplinary Session 4: Research Topics in Geography, Psychology, Philosophy and Political Science
Moderator: Dovev Leung-Levine

William Altenburg
Philosophy
Thermodynamic Dissipative Systems: the Link Between Physics, Biology, and Philosophy
Adviser: Willem De Vries

Paul Goodwin
Geography
Gaying Ogunquit
Adviser: Blake Gumprecht

Andrew Kitt
Rachel Shanahan
Linnea Simm
Psychology
Alexander Sakovits
Neuroscience and Behavior
Correlates of Local and Global Stereopsis
Adviser: William Stine

Hannah Lawrence
Political Science and Justice Studies
Rachael Plushner
Political Science
Brittany Zorn
Psychology and Women’s Studies
An Interrogation of Gender-neutral Spaces at UNH
Adviser: Mary Malone

Eric Saindon
Geography
Is College the Answer? How Communities Shape Decisions About College
Adviser: Benjamin Brown

Christine Warden
Philosophy and Political Science
Actors in World Politics: Identity
Adviser: Alynna Lyon
Public Opinion: Exploratory Studies on Key Social Issues

Moderator: Mark Hungerford

Matthew Jones
International Affairs and Communication
Public Opinion Study: Should the United States Have a National Language?
Adviser: Mark Hungerford

Samantha Ramsdell
Communication
Public Opinion on Sexuality Education in America
Adviser: Mark Hungerford

Samantha Simpson
Communication
Public Opinion Research on Animal Medical Testing
Adviser: Mark Hungerford

Christopher Walker
Communication
Are Video Games More Harmful or Beneficial to Kids Today?
Adviser: Mark Hungerford

The Naked Arts—Creativity Exposed

Act III

Friday, April 27
12:15–1 p.m.
Memorial Union Building Strafford Room

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.

George Adams
Music
Sonority Hierarchy in Steve Reich’s “Come Out”: An Intersection of Language and Music
Adviser: Maya Ravindranath

Jessica Emerson
Theatre and Dance
Directing “Rabbit Hole,” a Play by David Lindsay-Abaire
Adviser: David Kaye

Travis Pynenburg
English Literature
Training Wheels: The Roots of Fiction
Adviser: Thomas Payne

College of Health and Human Services Grimes Award Competition

Friday, April 27
1:30–4 p.m.
Pettee Hall, Room G10

Jack and Marianna Grimes and family, all UNH graduates, endowed the funds for this celebration of excellence in undergraduate research. The oral presentation competition includes finalists who have been selected by CHHS faculty after rigorous scientific review of written proposals. Information on participants will be available at this event.

Psychology Department
George M. Haslerud Undergraduate Research Conference

Friday, April 27
1:30–5 p.m.
Murkland Hall, 115

The George M. Haslerud Undergraduate Research Conference, 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.

Heather Balch
Psychology
Correlates of Authenticity Doubts
Adviser: Edward Lemay

Sarah Bradshaw
Psychology
A Rodent Model of the Ontogeny of Adolescent Attention: The Effects of Ritalin
Adviser: Jill Mc realpath

Eliza Cope
Spanish
Spanish Mood Alternation in Temer, Esperar, Entender, Suspechar, and Parecer: Exaggerated or Real
Adviser: John Chaston

Emilie Hall
International Affairs and Spanish
Student Usage of Prepositions in Spanish: Considerations Far Beyond por and para
Adviser: John Chaston

Emily Koester
Spanish and Linguistics
Subjunctive Adverbial Clauses: Es posible que We Need to Take Another Look
Adviser: John Chaston

Samuel Rheaume
Art Studio
24 Hours and Beyond: Comparing Usage of the Spanish Present Perfect and Preterite
Adviser: John Chaston

Chelsea Stickney
Spanish
Why Does the Subjunctive Follow el hecho de que in Spanish? Meaning and Style in Oral and Written Production
Adviser: John Chaston
Kevin Cannon  
Psychology 
When Reassurance Becomes Rejection: An Experimental Exploration Into Excessive Reassurance-seeking and Interpersonal Rejection  
Adviser: Edward Lemay

Eva-Molly Dunbar  
Psychology 
Effectiveness of Eating Concerns Mentoring Program  
Adviser: Victoria Banyard

Sarah Ransom  
Psychology and Justice Studies  
Attributions of Responsibility for Relational Aggression: Victim and Perpetrator Reputation and Kind of Reputation  
Adviser: Ellen Cohn

Erin Sandler  
Classics and Psychology  
Religiosity, Identity, and Depression in Late Adolescence: An Exploratory Study  
Adviser: Carolyn Mebert

Choe Shannon  
Psychology  
Perception, Rumination and Reaction: The Role of Personality Variables in Predicting Workplace Behaviors  
Advisers: Paul Harvey, Rebecca Warner

Kristen Williams  
Psychology and Justice Studies  
I Can’t Because It’s Wrong: Adolescent Moral Reasoning and Rule Violating Behavior  
Adviser: Ellen Cohn

Megan Katz  
English and Education  
The Language of Instruction: Using Language to Empower Urban Elementary School Students  
Adviser: Thomas Newkirk

Eliza Mackintosh  
English/Journalism and Communication  
A Digital Revolution: Journalism in Today’s Society  
Adviser: Thomas Haines

Renee Poisson  
English Literature  
The Representation of Native Women in Indigenous New England Literature  
Adviser: Siobhan Senier

Travis Pynenburg  
English Literature  
Being the Protagonist: Player-character Identification in Contemporary Interactive Narrative  
Adviser: Thomas Newkirk

Nias Achorn  
English Literature  
Ernest Hemingway’s Treatment of Spain in The Sun Also Rises and For Whom the Bell Tolls  
Adviser: Sarah Sherman

Patrice Comeau  
English Teaching  
Consumerism as a Form of Death Denial in F. Scott Fitzgerald’s The Great Gatsby and Arthur Miller’s Death of a Salesman  
Adviser: Sarah Sherman

Jacqueline Cordell  
English Literature and Linguistics  
The Individual Voice: The Expression of Authority through Dialects, Idiolects, and Borrowed Terminology in Chaucer’s Canterbury Tales  
Adviser: Cord Whitaker

Joanne Deming  
English Literature  
The First and Final Poetry of Joanne Deming  
Adviser: David Rivard

William Altenburg  
Philosophy  
Thermodynamic Dissipative Systems: the Link Between Physics, Biology, and Philosophy  
Adviser: Willem De Vries
Christopher Bruneau  
Philosophy  
Ethical Intuitionism: From Ross to Audi  
Adviser: Paul McNamara

Christopher Cogswell  
Chemical Engineering and Philosophy  
The Biological Basis of Moral Systems  
Adviser: Willem De Vries

Alicia Jacobs  
Philosophy  
On the Benefits of Viewing Health Care as a Needs-claim  
Adviser: David Hiley

Brianna Jean  
Philosophy and Mathematics & Statistics  
The Cause of Emergent Supervenience Relations  
Adviser: Willem De Vries

Taylor Levesque  
Philosophy  
Defending Determinate Content  
Adviser: Willem De Vries

Tailer Ransom  
Philosophy and Psychology  
Zombies, Epiphenomenalism and the A Posteriori Necessity of Phenomenal Consciousness  
Adviser: Willem De Vries

Kevin Vansylyvong  
Philosophy and History  
Michel Foucault and the Confiness of Historical Methodology and Historical Meaning  
Adviser: David Hiley

Christine Warden  
Philosophy and Political Science  
Stoic Minds: Psychological Findings and the Stoic Philosophy  
Adviser: Paul McNamara

Justin Ykema  
Philosophy  
Problem of Evil  
Adviser: Willem De Vries

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**Student Composers’ Concert**

**Friday, April 27**  
8 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.

**Parker Callahan**  
Music Composition  
Three Moods for the Piano  
Adviser: Christopher Kies

**Nathan Faro**  
Music Composition  
Gaslight  
Adviser: Christopher Kies

**Brett Gallo**  
Music Composition  
Sextet  
Adviser: Ryan Vigil

**Vincent LaMonica**  
Music Education  
Irish Suite for Brass Quintet  
Adviser: Michael Annicchiarico

**Molly Ann McCahan**  
Music Composition and Ecogastronomy  
A Thirsty Fish  
Adviser: Michael Annicchiarico

**Zachary Onett**  
Music Composition  
Karate  
Adviser: Christopher Kies

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**21st Annual COLSA Undergraduate Research Conference**

Student presentations at the Annual COLSA URC are based on research conducted in any of the college’s departments. Research ranges from field studies to molecular biology to genomics studies. Registrants will be notified by the COLSA URC committee if they are selected for an oral presentation.

**Oral Presentations**

**Saturday, April 28**  
7:45 a.m.–2 p.m.  
Holloway Commons  
Piscataqua Room

**Jacqueline Amante**  
Environmental Sciences  
Quantifying Methane Ebulitive Flux from Subarctic Ecosystems  
Adviser: Ruth Varner

**Benjamin Decato**  
Computer Science  
Gene Family Size and Expression Levels in the Genus Vibrio  
Advisers: Vaughn Cooper, Philip Hatcher

**Ryan Finethy**  
Biochemistry, Molecular and Cellular Biology  
Quantitating Changes to Global Histone Modification Patterns Following Camptothecin Treatment  
Adviser: Feixia Chu

**Sara Gassman**  
Environmental Conservation Studies  
Community Activism in the Gulf Coast After the Deepwater Horizon Oil Spill  
Adviser: Thomas Safford

**Alyssa Mixon**  
Biology and Classics  
An Investigation of Zostera marina (Eelgrass) Resilience through Genetic Diversity  
Advisers: Jim Coyer, Anita Klein, Jeanine Olsen, Sarah Weigel
Scott Morin  
Biology  
Cloning cDNA of Gonadotropin-releasing Hormone (GnRH) Isoforms from Brains of Black Sea Bass, Centropristis striata  
Advisers: David Berlinsky, Wayne Decatur, Stacia Sower

Gina Soule  
Applied Animal Science  
Effects of Kelp Meal on Performance and Structural Growth of Conventional and Organic Dairy Calves  
Adviser: Andre Brito

William Wyman  
Biomedical Science  
Cell Staining Techniques for Quantification of Actively Replicating S-phase Cells in Arabidopsis thaliana  
Adviser: Kevin Culligan

**Poster Presentations**

**Saturday, April 28**  
7:45 a.m.–2 p.m.  
Huddleston Hall Ballroom

Scott Morin  
Biology  
Cloning cDNA of Gonadotropin-releasing Hormone (GnRH) Isoforms from Brains of Black Sea Bass, Centropristis striata  
Advisers: David Berlinsky, Wayne Decatur, Stacia Sower

Steven Bench  
Biochemistry, Molecular and Cellular Biology  
Auxin and Cytokinin Crosstalk at the Level of Gene Expression in Arabidopsis thaliana  
Adviser: Dennis Mathews

Kimberly Bixby  
Scott Finnance  
Adrienne Morann  
Cody White  
 Neuroscience and Behavior  
Nocturnal Swimming Activity Patterns in Melibe leonina Influenced by Localized Circadian Clock Proteins  
Adviser: Winsor Watson

Kimberly Bixby  
Cody White  
 Neuroscience and Behavior  
Presence of a Light Sensitive Molecule, Cryptochrome, in the Ventral Nerve Cord of Lobsters, Homarus americanus  
Adviser: Winsor Watson

Stephanie Blevens  
Biochemistry, Molecular and Cellular Biology  
Use of Comparative Genomics to Determine Origin and Function of Introns in Caenorhabditis  
Adviser: John Collins

John Bucc (research scientist)  
Denise Jurczyszak  
Biochemistry, Molecular and Cellular Biology  
Mitochondrial DNA and Real Time PCR to Detect Fecal Sources in Surface Water  
Adviser: William McDowell, Inga Sidor

Tyler Burks  
Biology  
High or Low Antibody Responder Chickens Have Differential Embryonic Bursal Gene Expression After Testosterone Exposure  
Adviser: Robert Taylor

Emily Callahan  
Neuroscience and Behavior  
Tests for Number Discrimination in Clark’s Nutcrackers (Nucifraga columbiana)  
Adviser: Brett Gibson

Michael Cassella  
Biochemistry, Molecular and Cellular Biology  
Kati Kluck  
Biology  
A Pilot Study of Genetic Resilience and Diversity Among Eelgrass (Zostera marina) Populations in the New England Coastal Region  
Adviser: Anita Klein

Bradley Chamberlain  
Biochemistry, Molecular and Cellular Biology  
Are Matrix Metalloproteinases (MMPs) Present in Skeletal Muscle of the Spiny Dogfish Shark, Squalus acanthurus?  
Adviser: Paul Tsang

Andrew Clark  
Rachel Fredette  
Ovarian Mapping: Tracking the Recruitment, Growth, and Regression of Ovarian Follicles in Dairy Cattle  
Adviser: David Townson

Matthew Cotton  
Elora Demers  
Kendall Milkey  
Biochemistry, Molecular and Cellular Biology  
Megan Thompson (graduate student)  
A Screen to Identify Mutants with a Sodium-induced Root Skewing Phenotype  
Adviser: Estelle Hrabak

Amanda Craig  
Animal Science: Pre-veterinary Medicine  
Rikki Miller (graduate student)  
Developing Electrophysiological Procedures to Record Neuronal Response Properties from Thalamic Nuclei  
Adviser: Brett Gibson

Miranda Cruz (graduate student)  
Environmental Conservation Studies  
Sustainability and the Oyster River Cooperative School District  
Adviser: Shelley Mitchell

Peter Abdu  
Wildlife and Conservation Biology  
Alexej Siren (graduate student)  
Standardizing a Non-invasive Survey Method to Estimate Population Density of American Martens in Northern New Hampshire  
Adviser: Peter Pekins

Behailu Aklilu (graduate student)  
Stacy Wong  
Biochemistry, Molecular and Cellular Biology  
The Role of Replication Protein A (RPA70C) in Response to Replication Blocks in the Model Plant Arabidopsis thaliana  
Adviser: Kevin Culligan

Michaela Barhite  
Nutrition  
Do Environmental Chemicals Predict Weight Gain in College-aged Females?  
Adviser: Gale Carey

Amanda Craig  
Animal Science: Pre-veterinary Medicine  
Rikki Miller (graduate student)  
Developing Electrophysiological Procedures to Record Neuronal Response Properties from Thalamic Nuclei  
Adviser: Brett Gibson

Miranda Cruz (graduate student)  
John Doyle  
Environmental Conservation Studies  
Sustainability and the Oyster River Cooperative School District  
Adviser: Shelley Mitchell
Nicole D’Alessio  
Environmental and Resource Economics  
**Donna Pohli**  
Tourism Planning and Development  
*The Discount Rate of the Rochester-Durham Pipeline Project*  
Adviser: John Halstead  
**Danielle D’Amore**  
Biomedical Science  
*Is there a Link Between Heterozygosity and Mobility, Size, or Sex in the Blue Mussel, Mytilus edulis? An EPIC-PCR Approach*  
Adviser: Marian Litvaitis  
**Padraic Dayton**  
Environmental and Resource Economics and Spanish  
**Zander Fogg**  
International Affairs and Environmental and Resource Economics  
**Evan Girard**  
Environmental and Resource Economics  
*Feasibility of Productive Agricultural Use of Fallow Public Land: Case Study in Economic and Human Development in the Seacoast Region*  
Adviser: John Halstead  
**Diego DelAlamo**  
Biochemistry, Molecular and Cellular Biology  
*Assessment of Bacterial Endosymbiont Community Populations in Caulerpa mexicana Using Quantitative PCR*  
Advisers: Wayne Fagerberg, Louis Tisa  
**Jessica Dick**  
Environmental Sciences  
*Agricultural Impacts on Soil and Plant Litter Mineralogy*  
Adviser: Jo Laird  
**Margaret Donovan**  
Nutrition  
*A Correlative Study of Perceived Stress and Emotional Support with Weight Gain in College Students: Expanding the Young Adults Eating and Active for Health Project*  
Advisers: Kendra Kattleman, Jesse Morrell  
**Benjamin Duckless**  
Biology  
*Influence of Cytoskeletal Stress Filaments on Cell Death in Human Cervical Carcinoma*  
Adviser: David Townson  
**Umija Durakovic**  
Biochemistry, Molecular and Cellular Biology  
*Motility Mutants in Photorhabdus temperata*  
Adviser: Louis Tisa  
**Whit Durant**  
Biochemistry, Molecular and Cellular Biology  
*The Effects of PDBEs on Lipid Accumulation in Liver Tissue*  
Adviser: Gale Carey  
**Sara Edquist (graduate student)**  
John Marovelli  
Zoology  
**Christopher Wells (graduate student)**  
**Sinead Grabbert**  
Marine, Estuarine and Freshwater Biology  
*Does an Invasive Intertidal Shore Crab Affect the Population Demography of Three Intertidal Periwinkles?*  
Adviser: Larry Harris  
**Hannah Eldred**  
Biomedical Science  
*Cytoplasmic Sequestration of p53 in the Cell Line KG-1, and a Clinical Population*  
Adviser: Charles Walker  
**Siobahn Evans**  
Biology  
*Effects of Diabetic Conditions on Vascular Wound Healing*  
Adviser: Thomas Foxall  
**Kathleen Farrell**  
Environmental and Resource Economics  
*A Cost-benefit Analysis of Water Quality*  
Adviser: Alberto Manalo  
**Jonathan Fogel**  
Biology  
*Expression of Fungal Lipases in Higher Plants for Biodiesel Production*  
Adviser: Subhash Minocha  
**Kathryn Fox**  
Plant Biology  
*Petunia (Solanaceae) for the Flora of North America*  
Adviser: Janet Sullivan  
**Katherine Frazier**  
**Danica Goodheart**  
Applied Animal Science  
*Comparing the Stress Marker Cortisol in Pasture vs. Total Mixed Ration-fed Dairy Cattle*  
Adviser: Thomas Foxall  
**Mitchell Granoff**  
Biochemistry, Molecular and Cellular Biology  
*Identification of Novel Proteins in Translational Complexes in Saccharomyces cerevisiae via Analytical Ultracentrifugation with the Fluorescence Detection System*  
Adviser: Clyde Denis  
**Taylor Hickman**  
Biochemistry, Molecular and Cellular Biology  
*Epigenetic Regulation of Rett Syndrome in a Mouse Model*  
Adviser: Feixia Chu  
**Marianne Hromis**  
Plant Biology  
*Alpine Flora of Valtallina and Val Malenco, Central Italian Alps*  
Adviser: Janet Sullivan  
**Clayton Hutchinson**  
Environmental Sciences  
*Leaf Litter Decomposition in Beaver Habitat of the Ipswich Watershed*  
Adviser: Wilfred Wollheim  
**Jonas Insinga**  
Zoology  
*The Effects of Forest Management on Mushroom-Eating Beetles*  
Adviser: Donald Chandler  
**Jenny Jing**  
Biomedical Science  
*Assaying Antioxidant Capacity in Strawberry Fruit*  
Advisers: Thomas Davis, Lise Mahoney
Jason Langevin
Marine, Estuarine and Freshwater Biology
Effect of Food Selection on the Survival and Growth Rate of the Bryozoan Bugula neritina
Adviser: Larry Harris

Katherine Lantz
Biomedical Science
Production of Human Alpha-galactosidase A in Plants
Adviser: Subhash Minocha

Riley Laramore
Michelle Maher
Caitlin Pascoe
Jessica Skalinski
Nutrition
Seeing Stars
Advisers: Gale Carey, Jesse Morrell

Bethany Lefebvre
International Affairs and Environmental Conservation Studies
Development of a High-sensitivity Method to Detect Accumulation of Cyanobacteria Toxins, Microcystins, in Tissues of Cherry Tomatoes and Bush Beans
Advisers: James Haney, Amanda Murby

Michael MacArthur
Nutrition
Effects of Evidence-based Nutritional Strategies on Body Composition and Strength in Collegiate Football Players
Adviser: Dennis Bobilya

Adam Marquis
Wildlife and Conservation Biology
Landscape and Local-scale Effects on Stream Salamanders in Southeastern New Hampshire
Adviser: Kimberly Babbitt

Matthew Marquis
Biology
Production of Barnacle Cement in Plants
Adviser: Subhash Minocha

Rebecca Mason
Biological Sciences
The Role of HAUSP in the Mitochondrial Non-transcriptional p53 Apoptotic Pathway of IMR-32 Human Neuroblastoma Cancer Cells
Adviser: Charles Walker

Leslie Mayo-Smith
Ecology, Evolution and Behavior
Charles Traverse (graduate student)
An Adaptive Walk in a Biofilm Community: Redux
Adviser: Vaughn Cooper

Sarah McGraw
Environmental Conservation Studies
Small Farm Agro-forestry Decision Making in Central America: A Preliminary Investigation
Adviser: Theodore Howard

Stephen McKernan
Hailong Zhang (research project manager)
Measuring Trehalose in Porphyra Using Enzymatic Assays
Adviser: Anita Klein

Megan McLaughlin
Biochemistry, Molecular and Cellular Biology
Charles Traverse (graduate student)
Iron Competition in Biofilm-evolved Burkholderia cenocepacia
Adviser: Vaughn Cooper

Stephanie Moses
Marine, Estuarine and Freshwater Biology
Is p53 Upregulated During Test Regeneration of the Sea Urchin, Strongylocentrotus droebachiensis
Adviser: Charles Walker

Phillip Munson
Biochemistry, Molecular and Cellular Biology
Matthew Reinhold
Physics
Carbohydrate Cancer Biomarkers: A New Technique for Structural Verification
Adviser: Vernon Reinhold

Megan Murray
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Katherine Norwood
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**Chemistry Department Poster Exhibition**

**Friday, May 4 3–4 p.m.**

**Parsons Hall, Iddles Lobby**

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

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Whittemore School of Business and Economics
Paul J. Holloway Innovation-to-Market Prize Competition

Championship Round

Wednesday, May 9
12:30–6 pm
Holloway Commons
Squamscott Room

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.
Acknowledgements

The UNH Undergraduate Research Conference has grown to become a signature event at the University, an annual highlight of the spring semester 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, behind-the-scenes network of a great many campus community members. Here, we acknowledge these individuals and campus institutions, and thank them for helping make URC 2012 happen.

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Web Solutions
Whittemore School of Business and Economics Marketing and Advertising Club

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Janet Cass, Co-Chair, Parents Association Undergraduate Research Symposium; Director, UNH Parents Association
Kathy Cataneo, Director of Research Development and Communications, Office of the Senior Vice Provost for Research
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Vaughn Cooper, Chair, COLSA URC; Associate Professor, Department of Molecular, Cellular and Biomedical Sciences
Molly Doyle, Administrative Director, Hamel Center for Undergraduate Research
Kate Gillen, Consulting Director, Connors Writing Center
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Amanda Royce, Graduate Assistant/Coordinator, Graduate Research Conference (GRC)
Mark Rubinstein, Vice President, Student and Academic Services

2012 URC Event Coordinators:
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Michael Annicchiarico, Student Composers’ Concert
Tim Barretto and Kate Hanson, Thompson School of Applied Sciences, Community Leadership Program
Janet Cass, Lynne Cooper and Peter Masucci, Parents Association Undergraduate Research Symposium (PAURS)
Vaughn Cooper, 20th Annual COLSA URC
Marianne Fortescue, UNH Office of Community Service Partnerships
Nivedita Gupta, Ruth Varner, Debra Williams, and Karen Burnett-Kurie, Interdisciplinary Science and Engineering (ISE) Symposium
Rob Haskins, The Naked Arts—Creativity Exposed!
Delia Konzett, Honors English Undergraduate Research Conference
Jessica Lepler, History Department URC
Catherine Mazur, Senior B.A., B.F.A. and M.F.A. Exhibition Preview Reception
Michael Merenda and Cynthia Nizzari-McClain, WSBE Paul J. Holloway Prize University-wide Innovation-to-Market Competition
Cari Moorhead and Amanda Royce, Graduate Research Conference (GRC)
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Dan Reagan, UNH Manchester Undergraduate Research Conferences
Cindi Rohwer, Chemistry Department Poster Exhibition
Robert Scharff and Eliza Wood, Philosophy Department URC
Neil Vroman, College of Health and Human Services (CHHS) Grimes Award Competition
James Wible and Sinthy Kounlasa, WSBE URC

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James Wible, Chair, WSBE URC; Professor, Economics
Debra Williams, Co-Chair, ISE Symposium; Administrative Manager, CEPS Office of the Dean
Julie Williams, Senior Vice Provost for Engagement and Academic Outreach
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“I loved how people were genuinely interested in my presentation.”

“I feel much more prepared for presentations in the future and more confident in my public speaking abilities.”

“The encouragement of my department was outstanding. Professors and staff were fully supportive throughout the entire process and truly made the experience enjoyable and productive.”

“It was great to be part of a nationally recognized event at UNH.”