A welcome to participants and attendees

Welcome to the 15th 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.

The long tradition of college-based research conferences came together as a University-wide effort in the spring of 2000. Since then, the URC has become an annual tradition that celebrates the ingenuity, talent, and accomplishments of UNH students, and honors the collaboration and mutual respect between our students and their faculty. Our conference is 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 both the Durham and Manchester campuses, and represent academic achievements in every college and school.

At UNH, we seek through our discovery-based education to give every student the knowledge, skills, and confidence they need to turn their ideas into action, whether they pursue graduate studies, fulfilling careers, and, always, lives of meaning and commitment. The URC represents a moment for reflecting on our students’ success, and their promise.

Whether your visit includes a poster session, a formal presentation, an art exhibit, or a creative demonstration, we know 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

Lisa MacFarlane, 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 320 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

Lynne D. Cooper, Chair, URC Planning Committee
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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.
### URC 2014 Calendar

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

#### Friday, April 11
6–8 p.m.
2014 Senior B.A. & B.F.A. Exhibition and M.F.A. Thesis Exhibition and Preview Reception
Paul Creative Arts Center
Museum of Art (6)
(Exhibition runs April 11–May 16, 2014)

#### Wednesday, April 16 and Thursday, April 17
Wednesday, 5–8 p.m.
Graduate Research Conference (GRC) Poster Presentations
Whittemore Center Arena (1)

Thursday, 9 a.m.–3 p.m.
Graduate Research Conference (GRC) Oral Presentations
Holloway Commons (2)

#### Tuesday, April 22
10 a.m.–2 p.m.
UNH Manchester Undergraduate Research Conference
Oral Presentations
UNHM Auditorium

#### Wednesday, April 23
9 a.m.–Noon
Thompson School Community Leadership Program
Memorial Union Building
Rooms 330/332 and 334/336 (3)

10:30 a.m.–Noon
UNH Office of Community Service and Learning and Seacoast Reads
Memorial Union Building
Rooms 330/332 and 334/336 (3)

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

Noon–2 p.m.
Paul College of Business and Economics University-wide Paul J. Holloway Prize Innovation-to-Market Competition
Charles & Miriam Nelson Poster Round
Peter T. Paul College, G-35 (11)

2–5 p.m.
Interdisciplinary Science and Engineering (ISE) Symposium
Whittemore Center Arena (8)

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

#### Thursday, April 24
8 a.m.–5 p.m.
UNH Manchester Undergraduate Research Conference Technology Day Engineering Technology Senior Projects
UNHM, Pandora Mill, second floor

2–4 p.m.
UNH Manchester Undergraduate Research Conference Technology Day Computing Technology Poster Presentations
UNHM, Pandora Mill, second floor

10 a.m.–1 p.m.
UNH Manchester Undergraduate Research Conference Cinema Arts Day
UNHM Auditorium

12:40–2 p.m.
The Naked Arts—Creativity Exposed! (Act II)
Paul Creative Arts Center
Museum of Art (6)

12:30–2 p.m.
History Department Undergraduate Research Conference
Oral Presentations
Memorial Union Building
Rooms 332, 338, and 340 (3)

5:30–7:30 p.m.
Thompson School Undergraduate Student Showcase
Stacey’s at Cole Hall (10)

#### Friday, April 25
9–9:30 a.m.
Parents Association Undergraduate Research Symposium Breakfast
Memorial Union Building (3)
Granite State Room

9:30 a.m.–1:30 p.m.
Parents Association Undergraduate Research Symposium
Poster and Oral Presentations
Memorial Union Building (3)

10 a.m.–5 p.m.
Paul College of Business and Economics Undergraduate Research Conference
Peter T. Paul College Building (11)

1–5 p.m.
Paul College of Business and Economics University-wide Paul J. Holloway Prize Innovation-to-Market Competition
Bud Albin Challenge Round

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

1:30–4 p.m.
College of Health and Human Services Grimes Award Competition
Pettee Hall, G-10 (9)

1:30–5 p.m.
Psychology Department George M. Haslerud Undergraduate Research Conference
Conant Hall, Room 101 (12)

2–6 p.m.
Honors English Undergraduate Research Conference
English Department (4)

4–8:30 p.m.
Philosophy Department Undergraduate Research Conference
Hunko Hall, G-17 (5)

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

#### Saturday, April 26
7:45 a.m.–2 p.m.
23rd Annual College of Life Sciences and Agriculture (COLSA) Undergraduate Research Conference
Huddleston Ballroom and Holloway Commons (1) and (2)

#### Friday, May 2
3–4 p.m.
Chemistry Department Poster Exhibition
Parsons Hall, Iddles Lobby (7)

#### Wednesday, May 7
1–5:30 p.m.
Paul College of Business and Economics University-wide Paul J. Holloway Prize Innovation-to-Market Championship Round
Holloway Commons
Squamscott Room (2)
BUILDING KEY

1. Huddleston Hall
2. Holloway Commons
3. Memorial Union Building (MUB)
4. Hamilton Smith Hall
5. Murkland Hall
6. Paul Creative Arts Center
7. Parsons Hall
8. Whittemore Center Arena
9. Pettee Hall
10. Cole Hall
11. Paul College
12. Conant Hall

UNH Manchester
400 Commercial Street
88 Commercial Street (Pandora Mill)
Manchester, N.H.

For directions to UNH Manchester go to www.unhmanh.edu/directions.html or call (603) 641-4321.
The information contained in this program is considered accurate at press time.
**Capstone Portfolios**

**MUB, Rooms 334/336**

Moderator and Adviser: Tim Barretto

Katherine Charron  
Community Leadership  
Cocheco Valley Humane Society  
Fundraiser

Michael Donahue  
Community Leadership  
Swing Big for Brain Tumor Research

Emeric Farr-Szep  
Community Leadership  
Girl Rising: A Global Action Campaign for Girls Education

**UNH Office of Community Service and Learning and Seacost Reads**

**Wednesday, April 23**

**9 a.m.–Noon**

**Memorial Union Building**

This display showcases the work of student service organizations and student groups—ranging from spring break trips to residence hall community partnerships—engaged in community service and service-learning projects throughout the year.

Taylor Devine  
Communication Sciences and Disorders  
Building Relationships with Books: Seacoast Reads Volunteer Tutoring Program  
Advisers: Pamela Bishop, Carrie Smart, Ruth Wharton-McDonald

**Nonprofit Research**

**MUB, Rooms 338/340**

Moderator and Adviser: Kate Hanson

Odun Adegbite  
Health Management and Policy  
Nonprofit Research: Operation Blessing

Victoria Bassi  
Family Studies  
Nonprofit Research: Fair Tide Investigation and Evaluation

Adriana Castrillon Reyes  
Family Studies  
Nonprofit Research: Special Olympics of New Hampshire

Ryan Flanagan  
Community Leadership  
Nonprofit Research: New Heights

Alyssa Fraser  
Family Studies  
Nonprofit Research: A Safe Place

Laura Kazmierczak  
Family Studies  
Nonprofit Research: Great Bay Services

Devin Kelsey  
Anthropology and Sociology  
Nonprofit Research: Child and Family Services of NH

Arielle Marquis  
Psychology  
Nonprofit Research: Somersworth Youth Safe Haven

Jillian Marquis  
Communication  
Nonprofit Research: Donorability of the American Cancer Society

Casey Mazar  
Sustainable Agriculture and Food Systems  
Nonprofit Research: Waysmeet Center

Vivian Pham  
Psychology and Family Studies  
Nonprofit Research: Goodwin Community Health

Abigail Rabinovitz  
Applied Animal Science and Community Leadership  
Nonprofit Research: NHSPCA

Kerry Ryan  
Community Leadership  
Nonprofit Research: Environmental League of Massachusetts

Leah Schwanke  
Culinary Arts and Nutrition  
Nonprofit Research: The Birchtree Center

Emma Vachon  
International Affairs and European Cultural Studies  
Nonprofit Research: Friends Forever

Cody Waites  
Family Studies  
Nonprofit Research: Friends in Action

Erica Wuorio  
Communication  
Nonprofit Research: UNH Fund

**The Naked Arts—Creativity Exposed**

**Act I**

**Wednesday, April 23**

**Noon–2 p.m.**

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

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

Jennifer Lamontagne  
Fine Arts  
What We Needed to Know  
Adviser: Julee Holcombe
Kimberlee Meserve  
Fine Arts  
*Memories: Near and Afar*  
Adviser: Julee Holcombe

Amber Petty  
Fine Arts  
*Portraits of Home*  
Adviser: Julee Holcombe

Keelie Winslow  
English  
*Spotted Horse: A Short Story*  
Adviser: Thomas Payne

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

Charles & Miriam Nelson  
Poster Competition

*WEDNESDAY 4/23*

**Wednesday, April 23**  
**Noon-2 p.m.**  
**Paul College, Room G35**

This poster competition gives all teams entered in the Holloway Prize Innovation-to-Market Competition an opportunity to showcase their research into entrepreneurship. Teams have three minutes to present their business idea, followed by three minutes of Q and A with the judges.

Steven Adams  
Information Systems Management and Management

Lisa Callahan  
Kevin Chase  
Management

Brett Cole  
Marketing

Richard Flocco  
Eric Inglese  
Finance and Management  
*Breezy Mirror*  
Adviser: William Hassey

---

Daniel Barlow  
Samuel Gruber  
Michael Murphy  
Management

Jaimee Harvey  
Finance and Management

Nathan Mainemer  
Marketing and Management

Tracey Nicholson  
Marketing  
*NightLife*  
Adviser: William Hassey

Kristen Bellomo  
Melissa Karpel  
Marketing and Management

Jaclyn Deasy  
Marisa Quintanar  
Management

Quinn Desiderio  
Accounting

Joshua Sokol  
Marketing and Entrepreneurial Studies  
*EZ-Park Business Proposition*  
Adviser: William Hassey

Brian Bissonette  
Economics and Management

Gregory Cuoco  
Jacob Lang  
Management

Cameron Perl  
Electrical Engineering  
*PAPAya Prevention*  
Adviser: Marc Sedam

Richard Boudrow  
Entrepreneurial Studies

Ryan Byrne  
Entrepreneurial Studies and Finance  
*HouseU*  
Adviser: Rob Patton

Robert Bowman  
Entrepreneurial Studies and Management

Christopher Buxton  
Scott Ricketts  
Marketing

Mark Hodges  
Finance and Management

Griffin Nuttall  
Management  
*Debed*  
Adviser: A. R. Venkatachalam

Emily Buswell  
Accounting and Entrepreneurial Studies

Peter Mancuso  
Finance and Entrepreneurial Studies

Matthew McAuliffe  
Marketing and Entrepreneurial Studies  
*MyStyle*  
Adviser: John Ela

Adam Carignan  
Allyson Packham  
Taylor Walter  
Environmental Engineering

Elizabeth McCrary  
Entrepreneurial Studies  
*Flow and Grow*  
Adviser: Nancy Kinner

Cara Carter  
Marketing and Management

Brianne Cox  
Marketing

William Foley  
Amanda Walker  
Finance and Management

Cody Marchand  
Jared Perkins  
Management  
*My Living Experience*  
Adviser: Caitlin DeSoye

Douglas Carter  
Matthew Sweeney  
Mechanical Engineering

Thomas DelSignore  
Galen Hand  
Marketing  
*The Bar-Back*  
Adviser: Peter Masucci

Joseph Corcoran  
Undeclared  
*Driven*  
Advisers: Juan Florin, Peter Masucci
Daniel Crowley  
Bridget Fay  
Cole Jaillet  
Marketing and Entrepreneurial Studies  
Jeffrey Moore  
Andrew Nelligan  
Mechanical Engineering  
Granite State Ventures: TiltOne  
Adviser: Jeffrey Sohl  

Toby Dewhurst (Graduate Student)  
ThoughtSoko: Empowering the Creative World  
Adviser: Fiona Wilson  

Matthew Doubleday  
Finance and Accounting  
Daniel Lambert  
Economics and Finance  
SunRaise  
Adviser: Ahmad Etebari  

Martin Gorman  
Entrepreneurial Studies and Marketing  
HitSpit  
Adviser: Bruce Pfeiffer  

Hayley Harmon  
Ecogastronomy and Economics  
The Central Market House  
Adviser: Daniel Winans  

Kristopher Hopkins  
Mechanical Engineering  
Cole Jaillet  
Marketing and Entrepreneurial Studies  

Curtis Lush  
Computer Engineering  
SkiSmart  
Adviser: Andrew Earle  

Kevin Joaquin  
Finance and Entrepreneurial Studies  
Benjamin Rodgers  
Entrepreneurial Studies and Management  
WorldSleep  
Adviser: Andrea Kokolis  

Corey Keenan  
Jonathan Vignaly  
Entrepreneurial Studies  
Global Brew  
Adviser: John Ela  

Christopher Kontos  
Entrepreneurial Studies  

James Landry  
Entrepreneurial Studies and Economics  

Fitness Fuel  
Adviser: John Ela  

Samuel St. Germain  
Entrepreneurial Studies and Management  

Nicholas Tovey  
William Watson  
Entrepreneurial Studies  
TuneSquad  
Adviser: John Ela  

Emily Stone  
Marketing and Management  

DiaBEATit: A Gaming App for Adolescents With Type 1 Diabetes  
Adviser: Andrew Earle  

Emma Vaillancourt (Graduate Student)  
Going Outfitters  
Adviser: Robert Gough  

Salar Abbas  
Daniel Christensen  
Mateen Eslamy  
Information Technology  

Research SAS Visual Analytics  
Adviser: Scott Valcourt  

Zain Abbas  
Physics  

Understanding Thermometry at Low Temperature  
Adviser: Karl Slifer  

Odin Achorn  
Chemistry  

Radically-Exchangeable Alkoxyamines as Heat-Responsive Crosslinkers for Polymeric Nanostructures and Nanocomposites  
Adviser: Erik Berda  

Travis Adams  
Civil Engineering  

Dynamic Testing Procedures for Performance Assessment of Nuclear Fuel Rods  
Adviser: Ricardo Medina  

Ian Ainslie  
Ewan Miller  
Civil Engineering  

Adam Hunsaker  
Civil Engineering  

Memorial Bridge Tidal Turbine  
Adviser: Erin Bell  

Samuel Allen  
Nicholas Sweeney-Cook  
Chemical Engineering  

Facile Synthesis of Metal Oxide Nanoparticle in Solution  
Adviser: Xiaowei Teng  

Tristan Amaral  
Earth Sciences  

How Does Snowpack Evolution Affect Climate?  
Advisers: Jack Dibb, Cameron Wake
Michael Anderson
Matthew Cote
Matthew Macey
Chelsea Noyes
Liam O’Brien
Brandon Smith
Civil Engineering
*Sibley Pond Bridge Replacement*
Adviser: Ricardo Medina

Samantha Anderson
Environmental Sciences
*Fine Scale Species Composition in a Region of Discontinuous Permafrost*
Advisers: Michael Palace, Ruth Varner

Grigoriy Androsov
John Connolly
Christopher Raymond
Civil Engineering
*Historic Building Renovation in Newmarket*
Adviser: Tat Fu

Zachary Angelini
Abygail Mangar
Katerina Messologitis
Environmental Engineering

Taygra Longstaff
International Affairs and Civil Engineering

Tegan O’Neill
Political Science
*The World Energy Project Team at the University of New Hampshire*
Adviser: James Malley

Zachary Angelini
Environmental Engineering
*Optimization of a Small Business’ Sustainability Using Life-cycle Analysis Software and Benefit Corporation Assessment Tools*
Adviser: Kevin Gardner

Georgianne Areizaga
Electrical Engineering

Haley Moore
Mechanical Engineering
*Small Scale Wind Turbine*
Advisers: Michael Carter, Martin Wosnik

Brittany Artale
Chemical Engineering
*Developing Genetic Tools for Geobacillus*
Adviser: Kang Wu

Adam Atkins
Wesley Bird
Sean Buxton
Andrew Felber
John Wight
Mechanical Engineering
*Diode Pumped Alkali Laser Prototype*
Advisers: F. William Hersman, Christopher White

Michael Auger
Douglas Carter
Amanda Makowiecki
Mechanical Engineering
*Separation Phenomena in Shear Wake Flows*
Adviser: Joseph Klewicki

Griffin Aurora
Daniel Barowski
Tyler King
Civil Engineering
*Tyler Couett*
International Affairs and Civil Engineering
*Design Concept for the Epping Public Library*
Adviser: Charles Goodspeed

Adam Baillargeon
Ryley Paquette
Michael Trovato
Environmental Engineering

Jeffrey Sires
Civil Engineering and Environmental Engineering
*Slow Sand Filter for San Pedro de Casta*
Adviser: Michael Collins

Dylan Ball
Sarah Marie Frankenberger
Chad Lawrence
Zachary Paitz
Chemical Engineering
*UNH Cowell Stadium Upgrade*
Adviser: Raymond Cook

Madelynn Ball
Per Lindgren
Chemical Engineering
*Phenol Deoxygenation Over Hydrotreating Catalysts*
Adviser: Palligarnai Vasudevan

Thomas Ball
Jessica Constant
Charles Riccardi
Dustin Sewall
Civil Engineering
*Six Flags Wooden Roller Coaster*
Adviser: Erin Bell

Jonathan Banker
Information Technology
*Help Desk CSR*
Adviser: Joanne Rollins

Christopher Barr
Tyler Fausnacht
Nicholas Geist
Sean Gribbin
Alex LeBoeuf
Matthew Sweeney
Mechanical Engineering

Eric Boudreau
Sean Leighton
Computer Science

Ryan Cahill
Computer Engineering
*UNH ROV: Underwater Remotely Operated Vehicle*
Advisers: M. Robinson Swift, May-Win Thein

Philip Barron II
Myles Duncanson
Kaitlin Frederick
Mechanical Engineering
*Magnetic Pulse Welding*
Adviser: Brad Kinsey

Eric Beaudoin
Genetics
*Characterization of the Colletotrichum Species Complex Across Fruit in the Northeastern United States*
Adviser: Kirk Broders

Rachel Beaudry
Devon Christen
Paige Dickie
Christopher Dowd
Justin Pennell
Kevin Tisdale
Civil Engineering
*UNH Steel Bridge Team*
Adviser: Charles Goodspeed
Thomas Beaulieu
Tucker Berube
Joseph Bleczinski
Ryan Bonin
Benjamin Brownell
Randall Carlson
Steven DeSantis
Matthew Dolan
Nicholas Elliott
Joshua Guion
Peter Konstailakas
Stephen Miller
Manasvi Putcha
Brad Thompson
Yigit Tokbey
Mechanical Engineering
Jeffrey Cahill
Electrical Engineering
University of New Hampshire Precision Racing
Adviser: Todd Gross
Sarah Benner
Information Technology
Smartify
Adviser: Sandra Rand
Jean-Francois Benoit
Earth Sciences
Testing the Age of the Western Branch of the East African Rift Using Magnetostratigraphy
Adviser: William Clyde
Brendan Bishop
Chemical Engineering
Superior Power Performance of Vanadium Oxide Layered Nanostructure
Adviser: Xiaowei Teng
Christopher Blais
Chemical Engineering
Fabrication and Characterization of HSA Microcapsules
Adviser: Nivedita Gupta
Michael Bogochow
Jeffrey Masucci
Cody Noel
Computer Science
Thomas Conway
Andrew D’Amore
William Lerner
Kristin Therrien
Mechanical Engineering
Autonomous Surface Vehicle
Adviser: May-Win Thein
Daniel Bolan
Joseph Jourdain
Computer Science
Jesse Davis
Erik Larson
Brett Ruggles
Stephen Swanick
Mechanical Engineering
Timothy Mitsopoulos
Computer Engineering
ET-NAVSWARM
Adviser: May-Win Thein
Chase Borden
Hau Doan
Joshua Feltner
Taylor Gamble
Daniel Holm
Cameron Keefe
Jeffrey Moore
Andrew Nelligan
Tucker Nugent
Mechanical Engineering
UNH Baja SAE
Adviser: Barbaros Celikkol
Calvin Boseke
Andrew Scire
Evan Vigue
Mechanical Engineering
Design of Automated Jigging Device
Adviser: Kenneth Baldwin
Joshua Bouthillier
Joseph DeSantis
Stephen Groark
Ryan Parker
David Schlatter
Civil Engineering
Residential Cargo Container Living
Adviser: Robert Henry
Andrew Boutin
David Harrigan
Justin Mansfield
Computer Science
Northeastern Collegiate Cyber-Defense Competition
Adviser: Kenneth Graf
Michael Boyd
Brendan Martin
Sean Patry
Timothy Patterson Jr
Bradley Poegel
Mechanical Engineering
Nicholas Frederico
Drew Stock
Computer Engineering
Jesse Mailhot
Computer Science
NASA MMS QuadSat Generation C
Adviser: May-Win Thein
John Brindley
Jesse Shull
Mechanical Engineering
Research & Development of WingTip Devices for Hydro-Kinetic Turbines and other Marine Applications
Adviser: Martin Wosnik
Lauren Brodie
Environmental Sciences
Landfills: Permanent Solution or Risky Business
Adviser: Michael Palace
Cody Burliss
Michael Wawrzyniak
Information Technology
Clinton York
Information Technology and Management
SDN: NetFPGA
Adviser: Scott Valcourt
Trung Cao
Julie Rose
Information Technology
Twitter Comfort Website
Adviser: Tat Fu
Blaine Cardali  
Brian Diezel  
William Edgerton  
Andrew Marlin  
Civil Engineering  
Hannah Leonard  
Environmental Engineering  
Remediation of the Elizabeth Mine Superfund Site  
Adviser: Jean Benoit

Adam Carignan  
Alyson Packhem  
Taylor Walter  
Environmental Engineering  
Elizabeth McCravy  
Entrepreneurial Studies  
Durham Urine Diversion and Recycle Feasibility Study  
Adviser: Nancy Kinner

Ian Carlisle  
Geology  
Arsenic Dynamics in New England  
Groundwater  
Adviser: Julia Bryce

Anthony Caruso  
Colin Fenton  
Colby Tidd  
Civil Engineering  
Cottages of Durham  
Advisers: Thomas Ballestero, Joe Persechino

David Chadwick  
Electrical Engineering and Management  
Wireless Electrocardiogram for Consumers  
Adviser: John LaCourse

Jacob Chaisson  
Michael Figueroa  
Christopher Jacques  
Sonja Pape  
Civil Engineering  
Sea Level Rise Adaptation Options for New Castle Causeway  
Advisers: Jo Daniel, Jennifer Jacobs

Eric Chamberlain  
Jackson Corson  
Daniel Moss  
Computer Science  
Course Scheduling Application  
Advisers: Radim Bartos, Michel Charpentier

Brittany Chambers  
Biomedical Science  
Building a Better Pentacene with Excellent Photooxidative Resistance and Thin Film Morphology  
Adviser: Glen Miller

Stephen Chambers  
Information Systems Management  
SPDY vs HTTP/1.1: An Empirical Evaluation of Network Protocol Performance  
Adviser: Radim Bartos

Daniel Chandler  
Jonathan George  
Nico Gobbi  
Stefan Kargakis  
Jared Nash  
Civil Engineering  
Hooksett Service Area  
Advisers: Paul Godfrey, Robert Henry

Zach Charewicz  
Zachary Countie  
Dimitry Harris  
Mechanical Engineering  
Effects of Scale on Model Wind Turbines  
Adviser: Martin Wosnik

Michael Checkoway  
Rishab Khanna  
Ryan Turner  
Information Technology  
Datacasting  
Adviser: Scott Valcourt

Chad Civello  
Physics  
Analyzing Heavy Photon Search Simulations to Determine the Potential for True Muonium Discovery  
Adviser: Maurik Holtrop

Ethan Cline  
Physics  
Characterization of a Silicon Microstrip Detector With an Infrared Laser  
Adviser: Maurik Holtrop

Michael Cobb (Special Guest from Elizabeth City State University)  
Chemistry  
The Watermark Project: Human Actions Impacting the Quality of Water  
Adviser: Linda Hayden (ECSU)

Joseph Collins  
Mechanical Engineering  
Exploring Auxetic Designs With 3-D Printing  
Adviser: Yaning Li

Scott Cooney  
Jordan Donovan  
David Wyman  
Information Technology  
Software Defined Networking (OpenDaylight)  
Adviser: Scott Valcourt

Samuel Cordeiro  
Cassandra DeNunzio  
Andrew Felicetti  
Robert Galli  
Cameron Perl  
Kevin Tierney  
Electrical Engineering  
The Goddard Project  
Adviser: W. Thomas Miller

Justin Cullity  
Chemical Engineering  
Resistance of Geobacillus to Heavy Metals  
Adviser: Kang Wu

Leland Curtis  
Zachary Duve  
Computer Science  
Anthony Edmonds  
Kyle Gagnon  
Justin Murphy  
Jonathan Shepard  
Mechanical Engineering  
UNH Lunabotics Team  
Adviser: May-Win Thein

Scott Cypher  
Computer Science  
Designing and Implementing an Android Application and Arduino Library for Simplified Bluetooth Communication  
Adviser: Radim Bartos

Lindsey Daniels  
Chemistry  
Formation of Amino Acid-derived Cyclopropanols  
Adviser: Charles Zercher
Daniel Darcy
Chemistry
Molecular Dynamic Study of Coarse-Grained Heteropolymer Folding
Advisers: Erik Berda, Howard Mayne

Jeffrey Davies
Kristopher Hopkins
Brian Regan
Mechanical Engineering
Rope-less Fishing in the Gulf of Maine
Adviser: Kenneth Baldwin

Abigail Davis
Megan Hamilton
Khoa Le
Ryan McMullen
Civil Engineering
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Adviser: Majid Ghayoomi

Joel DeStasio
Environmental Sciences
Methane and Carbon Dioxide Production Rates in Lake Sediments From Sub-Arctic Sweden
Adviser: Ruth Varner

Jessica DelGreco
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Estimating Anthropogenic Influences in Tropical Forests using Charcoal
Adviser: Michael Palace

Salvatore Devito
Scott Doe
Electrical Engineering
Developing a Tool for Converting MP3 Audio Files to Staff Music
Adviser: Richard Messner

Joseph DiDonna
Electrical Engineering
RC Airplane Instrument Landing System Glide Slope
Adviser: Kent Chamberlin

Patrick Dodd
Steven Dvorak
John Stowell
Spencer Zimmerman
Mechanical Engineering
Michael Kirby
Information Technology and Business
UNH Aero SAE
Advisers: Todd Gross, Glenn Shwaery

Azaline Dunlap-Smith
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Adviser: Arthur Greenberg

Adam Dyer
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Adviser: W. Rudolf Seitz

Meaghan Elrick
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Nicholas Frederico
Drew Stock
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Adviser: W. Thomas Miller

Jonathan Frey
Electrical Engineering
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Logan Gagne
Glenn Martin
Information Technology
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Adviser: R. Daniel Bergeron

Nihco Gallo
Julian Lovering
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Investigation of Avian Flight Mechanics
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Eric Germann
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Molly Goelzer
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Advisers: Nathan Schwadron, Charles Smith

Jason Graham
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Nicolas Grande
Daniel McGuire
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Adviser: Kenneth Graf

Megan Grass
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<td>Eric Guinto</td>
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<td>Rose Hadley</td>
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<td>Majid Ghayoomi</td>
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<td>Taylor Hodgdon</td>
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<td>Ryan Kaulbach</td>
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<td>Lebanon Regional Solid Waste Facility</td>
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<td>Designing a Thermally Conductive, Constant-Temperature Wall Plate To Be Used In a Small-Scale Boundary-Layer Wind Tunnel</td>
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<td>Alexandra Mackinnow</td>
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<td>Synthesis and Cationic Rearrangements of Polynaphthyls</td>
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<td>Kadina Mazic</td>
<td>Biochemistry, Molecular and Cellular Biology</td>
<td>The Use of First Principle Analytical Techniques in Order to Determine the Effect of pH on the Colloidal Properties of Monoclonal Antibodies</td>
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<td>Kathleen Miller</td>
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<td>Process to Impart Chemical Resistance to Anodized Aluminum</td>
<td>Dale Barkey</td>
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<td>Jeffrey Kling</td>
<td>Chemistry</td>
<td>Synthesis of Novel Cyclic and Bis-Bicyclic Polyamine Ligands for Biomedical and Catalysis Studies</td>
<td>Gary Weisman, Edward Wong</td>
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Rachel Provost  
Weston Rich  
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Douglas Osborne  
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Patrick Rydin  
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Charles Alfaro  
Business  
Public Response of Russian Invasion in Afghanistan  
Adviser: John Resch

Audrey Ameen  
Biological Sciences  
Testing for Total Coliforms and E. coli in Water  
Adviser: Patricia Halpin

Audrey Ameen  
Alex Beaulieu  
Samantha Gonzales  
Jennifer Ledoux  
Biological Sciences  
Invaders of Lake Massabesic: Exotic Species Infestation  
Adviser: Cheryl Wood

Stephen Appleby  
History  
The Role of Investors in Manufacturing in Manchester, New Hampshire 1804-1834  
Adviser: Robert Macieski

Nathaniel Biddle  
Courtney Jewett  
Joseph LaBarre (Graduate Student)  
Timothy Larochelle  
Alyssa Paquin  
Galen Sturup  
Psychology  
The Effects of Depth and Mask Coherence on Disappearance Frequency and Duration in Motion Induced Blindness  
Adviser: John Sparrow

Jessica Bissett  
Humanities  
Truth, Reconciliation, and Restorative Justice: An Inquiry  
Adviser: John Resch

Nicole Bouley  
Undeclared  
The Public Opinion on the Worn Commission Report  
Adviser: John Resch

Kelsey Breton  
Communication Arts  
Internship: Exploring CASA of NH  
Adviser: Patrice Mettauer

Derek Burkhardt  
Joshua Linnane  
Marc Stanieich  
Biological Sciences  
Goose Bumps  
Adviser: Patricia Halpin

Derek Burkhardt  
Ashley Kennedy  
Naeleh Marin  
Elizabeth McLaughlin  
Biological Sciences  
Lake Massabesic as a Water Supply  
Adviser: Stephen Pugh

Nicholas Burt  
Business  
Drug Use Within the Military During Vietnam  
Adviser: John Resch
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<th>Name</th>
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<th>Presentation</th>
<th>Adviser</th>
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<tr>
<td>Morgen Camponescki</td>
<td>Sign Language Interpretation</td>
<td>The Public Reaction to the Violence Against the Demonstrations in Selma, Alabama</td>
<td>John Resch</td>
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<td>Sara Clark</td>
<td>Sign Language Interpretation and Psychology</td>
<td>Exploration of the Deaf Soul Through Art</td>
<td>Jack Hoza</td>
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<td>Cassandra Corley</td>
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<td>Affirmative Action: Origins and Challenge</td>
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<td>Amber-Rose Couture</td>
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<td>Student Reactions to Brown v. Board</td>
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<td>Michael DeLuco</td>
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<td>The Effects of the Amoskeag Company on Workers Lives</td>
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<td>Kevin DeNaro</td>
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<td>Martin Luther King</td>
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<td>Julianna DelVecchio</td>
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<td>John Resch</td>
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<td>Ashley Donahue</td>
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<td>Internship at Clear Channel Radio, Rock 101</td>
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<td>Kyle Douglas</td>
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<td>Anes Dulas</td>
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<td>Brian Gailis</td>
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<td>Mihaela Sabin</td>
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<td>Raquel Gawron</td>
<td>History</td>
<td>Racial Impressions: A Look Into Race Relations in New Hampshire from 1820 to 1860</td>
<td>Robert Macieski</td>
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<td>Jesse Gralewski</td>
<td>Psychology</td>
<td>Defining Spirituality in Palliative and Hospice Care</td>
<td>Alison Paglia</td>
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<td>Courtney Holdsworth</td>
<td>Communication Arts</td>
<td>Understanding Human Resources Management</td>
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<td>Alexander Larochele</td>
<td>History</td>
<td>The Role of an LNA in Caring for Alzheimer’s Patients</td>
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<td>Therese Mehrmann</td>
<td>Psychological Sciences</td>
<td>Tibial Plateau Leveling Osteotomy in Dogs</td>
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<td>Phyllicia Wisti</td>
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<td>Courtney Jewett</td>
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<td>Jessy Lamontagne</td>
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<td>Public Response to Reagan’s Visit to Berlin</td>
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<td>Kristin LeComte</td>
<td>English</td>
<td>My Experience at New Hampshire Magazine</td>
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<td>Rachel Lewis</td>
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<td>WWPass Marketing and Finance Internship</td>
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<td>Jacob Linxweiler</td>
<td>History</td>
<td>Native American Identity in Pre Civil War New England</td>
<td>Robert Macieski</td>
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<td>Elizabeth Mason</td>
<td>Communication Arts</td>
<td>Internship in Digital and Social Media</td>
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<td>Stephanie McQuaid</td>
<td>Biological Sciences</td>
<td>A Day in the Life of an Optometrist</td>
<td>Stephen Pugh</td>
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<td>Lisa Miserandino</td>
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<td>Stephen Pugh</td>
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<td>Biological Sciences</td>
<td>Monitoring and Managing Autistic Behavior with Adults</td>
<td>Stephen Pugh</td>
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<td>Taylor Murray</td>
<td>English</td>
<td>The Formation of the Tuskeegee Airmen</td>
<td>John Resch</td>
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<tr>
<td>Samuel O’Brien</td>
<td>History</td>
<td>New Hampshire’s Agricultural Decline (1800–1860)</td>
<td>Robert Macieski</td>
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</table>
Katelyn Williams
Psychology
Evaluation of Spiritual Care in NH Hospice and Palliative Care
Adviser: Alison Paglia

Justin Wolbert
History
The Humanities and the Public School Development
Advisers: Robert Macieski

Haley Wright
Humanities
United Nations Human Rights Declaration: Origins and Assessment
Adviser: John Resch

UNH Manchester Undergraduate Research Conference Technology Day

Engineering Technology Senior Projects

Thursday, April 24
8 a.m.–5 p.m.
Pandora Mill
88 North Commercial, 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.

Jeffrey Deming
Alex Roy
Mechanical Engineering Technology
Velcro USA: Improvement of the Hot Air Ring Cleaner
Adviser: Faize Jamil

Yonatan GenaoBaez
Atul Shrestha
Electrical Engineering Technology
High Resolution ADC Performance
Adviser: David Forest

Richard Hilton
Casey Hoefer
Electrical Engineering Technology
Rooftop SnowScaletm Project 2KR Systems, LLC—UNH Manchester
Advisers: David Forest, Christopher LeBlanc

Joshua MacPherson
Electrical Engineering Technology
Exacom Mobile Application
Adviser: Michael Jonas

Andrew Mack
Mechanical Engineering Technology
Biomass Design and Energy Audit
Adviser: David Forest

Drew Mather
Electrical Engineering Technology
Exacom Radio Traffic Simulator
Adviser: Michael Jonas

Matthew McBride
Electrical Engineering Technology
BAE Systems (ES): Component Evaluation Card with FPGA
Advisers: David Forest, Christopher LeBlanc

Christopher Treadwell
Mechanical Engineering Technology
Energy Efficiency in Municipal Buildings
Adviser: Faize Jamil

Valentin Vacariu
Electrical Engineering Technology
Redesign and Expand the Calibration Test System in the Martel 71X Production Area
Adviser: David Forest

Samuel Workman
Electrical Engineering Technology
UNH Manchester Callrouter
Adviser: Michael Jonas
UNH Manchester Undergraduate Research Conference Technology Day

Computing Technology Poster Presentations

Thursday, April 24
2–4 p.m.
Pandora Mill
88 North Commercial, Manchester

Arwa Ahmad Hamdi
Valerie Therrien
Sinisa Vadic
Computer Information Systems
CIS Capstone: Systems Group
Adviser: Michael Jonas

Justin Alix
Justin Silva
Computer Information Systems
CIS Capstone: Tools Group
Adviser: Michael Jonas

Joshua Anderson
Brian Gailis
Ramon Whitman
Pauline Wilk
Computer Information Systems
CIS Capstone: Experiment Group
Adviser: Michael Jonas

Melissa Bruno
Colby Chenard
Computer Information Systems
NHVBSR Web App: Security
Adviser: Edward Nelson

Melissa Bruno
Computer Information Systems
Problem Destroying with Integration Engineering
Adviser: Karla Vogel

Colby Chenard
Colby Johnson
David Meehan
Computer Information Systems

Forrest Surprenant
Electrical Engineering Technology
CIS Capstone: Modeling Group
Adviser: Michael Jonas

Ed Daniels
Electrical Engineering Technology

Justin Silva
Computer Information Systems

David Sprague
Biological Sciences
Explore Manchester Water Works Treatment Plant
Adviser: John Blumberg

Mitchell DeZak
John Kelley
Jared Rohrdanz
Computer Information Systems
CIS Capstone: Data Group
Adviser: Michael Jonas

Mitchell DeZak
Nicholas Tello
Computer Information Systems
NHVBSR Web App: Volunteer Input
Adviser: Edward Nelson

Mohamed Fadlalla
Dakota Heyman
Samuel Sweet
Computer Information Systems
NHVBSR Web App: Boater Survey Input
Adviser: Edward Nelson

Stephen Griffin
Valerie Therrien
Computer Information Systems
NHVBSR Web App: Database Infrastructure
Adviser: Edward Nelson

Brittany Horne
Sign Language Interpretation
Fire Hydrant Tracker
Adviser: John Blumberg

Samuel Sweet
Computer Information Systems
Customer Billing Information Application
Adviser: John Blumberg

Pauline Wilk
Computer Information Systems
Increasing Participation of Women in Computing: An Analysis of Current Statistics and How to Improve Them
Adviser: Mihaela Sabin

Samuel Workman
Electrical Engineering Technology
Fish Finder: A Fish Catching Application
Adviser: John Blumberg

UNH Manchester Undergraduate Research Conference Cinema Arts Day

Thursday, April 24
10 a.m.–1 p.m.
University Center

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.

Amanda Amato
Undeclared
The Untold Story of Michael Fleming
Adviser: Anthony Tenczar

Derek Burkhardt
Joshua Linnane
Marc Staniech
Biological Sciences
Goose Bumps
Adviser: Patricia Halpin

Jennifer Cooper
Communication Arts
Off
Adviser: Anthony Tenczar
History Department Undergraduate Presentations

Thursday, April 24
12:30–2 p.m.
Memorial Union Building, Rooms 332, 338, and 340

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

MUB, 338

Close, Far, and Across Time

Moderator: Jan Golinski

Cory McKenzie
History, Philosophy, and Classics
Yuriwaka Daijin: The Debate over Japan’s Odysseus
Advisers: Gregory McMahon, Michiko Mori

Rose Phipps
History and Art History
Contract Labor: The Relationship between Apprenticeship and Freedmen’s Bureau Contracts
Adviser: Jessica Lepler

Katy Devine
History
‘The Honest Wizard’: An Examination of Early Mormonism in Relation to Early Modern Belief Systems
Adviser: Jan Golinski

Ashley Mosley
History
The Armenian Genocide: European and American Responses
Adviser: Sara Wolper

Colleen Rielly
History
Campus Activism at UNH in the 1960s
Adviser: Jason Sokol

MUB, 340

The Business of War and Well-being

Moderator: Cynthia Van Zandt

William Meyer
History and Economics
Building Boeing: The B-17, World War II, and the Rise of a Company
Advisers: Kurk Dorsey, Jessica Lepler

Stephanie Moore
History
Letters, War Bonds and The Army: Piecing Together a Timeline
Adviser: Kurk Dorsey

Jennifer Allen
Biomedical Science
Exploring the Patient-Physician Relationship in the United States: A Comparison of Contemporary Physicians and Patients and Their 19th Century Counterparts
Adviser: Marion Dorsey

Kerri Hunkele
History
The Business of War and Well-being

Moderator: Eliga Gould

Amanda Rice
History and Political Science
The Federalist Papers: Easing the Minds of Skeptics
Adviser: Eliga Gould

Stephanie Savage
History
American Exceptionalism in British Politics: Edmund Burke, A Friend of America
Adviser: Eliga Gould

Marissa Raymond
History
A Revolution Within The Revolution: Vermont and its Impact on America
Adviser: Eliga Gould

Christina Ellis
History
Prostitution, Literature, and Social Progress in Victorian Britain
Adviser: Nicoletta Gullace

Danielle Barrett
Theatre and History
Setting the Stage for War: A Study of Change Through Theater
Adviser: Kurk Dorsey
The Naked Arts—Creativity Exposed

Act II

Thursday, April 24
12:40–2 p.m.
Museum of Art,
Paul Creative Arts Center

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.

Kimberly D’Agnese
Theatre
[title of show]: The Little Musical that Could, but it Wasn’t Easy
Advisers: Raina Ames, Szu-Feng Chen

Nathan Faro
Music Theory
The ‘Millenial Symphony’: Composition as Cultural Reflection
Advisers: Michael Annicchiarico, Robert Haskins

Jennifer Lindsay
International Affairs and Art Studio
Contemporary Art with Chinese Characteristics: Relations Between Beijing Artists and the Chinese Government, post 1989
Adviser: Jennifer Moses

Daniel Shine
Theatre
It’s Just a Joke: The Cyclical Relationship of Comedy and Social Commentary
Adviser: David Kaye

Thompson School Undergraduate Student Showcase

Thursday, April 24
5:30–7:30 p.m.
Cole Hall (Stacey’s)

Thompson School of Applied Science students translate academic instruction into practical presentations at this year’s URC. Join selected students who will showcase their expertise in such diverse areas as food services management and forest and horticultural technology.

Alanna Broesler
Integrated Agricultural Management and Veterinary Technology
Small Growers Greenhouse Operation
Adviser: Andrew Conroy

Jacob Harris
Integrated Agricultural Management and Veterinary Technology
Harris Farm Future Growth and Improvement Plans
Adviser: Andrew Conroy

Nathaniel Kimball-Barr
Integrated Agricultural Management and Veterinary Technology
Beech Hill Farm: Exploring Options for the 9th Generation on the Family Farm
Adviser: Andrew Conroy

Parents Association Undergraduate Research Symposium

Welcome Breakfast with UNH Provost Lisa MacFarlane and Parents Association President Nithyanandam Mathiyazhagan

Friday, April 25
9–9:30 a.m.
Memorial Union Building,
Granite State Room

This informal gathering gives students, faculty and attendees an opportunity to visit with UNH Provost Lisa MacFarlane and Parents Association President Nithyanandam Mathiyazhagan, before experiencing the large university-wide event that follows—the Parents Association Undergraduate Research Symposium.

Parents Association Undergraduate Research Symposium

Oral Presentations, Session A

Friday, April 25
9:30–10:40 am
Memorial Union Building

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.
MUB, Room 338
**Health Related Research, Group 2**
Moderator: Shawn Green

Madeline Allen  
Kinesiology  
*Short-Term Adaptations to Resistance Training in Older Adults*  
Adviser: Summer Cook

Kailee Collins  
Occupational Therapy  
*Animal-Assisted Therapy Volunteerism: Motivations and Rewards*  
Adviser: Kerryellen Vroman

Amber Craft (McNair Scholar)  
Athletic Training  
*Comparison Of Fourier And Wavelet Transformations On a SEMG Frequency Spectra During Rapid Fatiguing Muscular Contractions*  
Adviser: Ronald Croce

Samuel Gagnon  
Kinesiology  
*The Relationship of Quadriceps Power and Physical Functioning in Older Adults*  
Adviser: Summer Cook

Katherine Fischer  
Kinesiology  
*Muscle Strength and Activation Influence Gait Speed in Older Adults*  
Adviser: Dain LaRoche

Jacob Moyer  
Kinesiology  
*The Effects of Resistance Training on Preferred Walking Speed in Older Adults*  
Adviser: Summer Cook

MUB, Room 340
**Health Related Research, Group 1**
Moderator: Melissa Rodgers

Hannah Barile  
Kinesiology  
*Muscle Size and Specific Force Along the Length of the Quadriceps in Older and Young Men and Women*  
Adviser: Summer Cook

Tonimarie Black  
Health Management and Policy  
*Place Matters: A Comparison Between Virginia and West Virginia Associated with Healthcare Access*  
Adviser: Robert McGrath

Ashley Meyer  
Kinesiology  
*Strength and Hypertrophic Changes Following 3 Months of Resistance Training in Older Adults*  
Adviser: Summer Cook

Emily Quinn  
Health Management and Policy  
*New Hampshire Medicaid Expansion and its Effects on the Mental Health Community*  
Adviser: James Lewis

Jesse Schwartz  
Kinesiology  
*The Effects of Blood Flow Restricted Resistance Training on Muscle Size and Strength in Older Adults*  
Adviser: Summer Cook

Tyler Whealan  
Athletic Training  
*Analysis of Neck Motion During Shoulder Pad Removal After a C-Spine Injury*  
Adviser: Erik Swartz

MUB, Strafford Room
**Health, Vitality and Equity: Opportunities for a Better Life**
Moderator: Laurie Whitman

Benjamin Bullock  
Sociology  
*Cats on Ice: Rubbing Out Gender Inequalities in UNH Ice Hockey*  
Adviser: Rebecca Glauber

Kaitlin Dresser  
Nutrition  
*Is Protein Supplementation in Male Weight Trainers, Ages 18–24, Associated With Increased Lean Body Mass, Upper Body Strength and Dietary Intake?*  
Adviser: Jesse Morrell

Tegan O’Neill  
Political Science  
*Mapping Sustainability in New Hampshire: Building an Interactive Mapping Tool for Issues, Organizations, and Actions Related to Sustainability in New Hampshire*  
Adviser: Colleen Flaherty

Kelsey Swalwell  
Nutrition  
*Nutrition for UNH Rowers*  
Adviser: Jesse Morrell

Kathryn Thomson  
Environmental Sciences  
*What Does an Oil-spill from the Montreal to Portland Pipeline Mean for Water Quality in New England’s Rivers?*  
Adviser: Cameron Wake

MUB, Room 233
**Honors Theses and Research Projects in Communication**
Moderator: Jennifer Borda

Katherine Bartow  
Communication  
*Media Advocacy and Body Image: How Social Media is Empowering a New Generation*  
Adviser: Joseph Terry

Linda Chardon  
Communication  
*Redefining Female Success and Empowerment in a Post-feminist Landscape: The Personal, The Political, and The Virtual?*  
Adviser: Jennifer Borda

Breanne Peloquin  
Communication  
*Building Character: The Construction of Ethos in ‘Tempo and Mode in the Macro-evolutionary Reconstruction of Darwinism’*  
Adviser: Michael Jackson

Katina Sousa  
Communication  
*Manson Family Coercion: A Study of Religious Rhetoric in Cult Structures and Social Groups*  
Adviser: Michael Jackson
MUB, Room 330

**International Affairs: Gender Norms, Empowerment, and Reproductive Rights**

Moderator: Catherine D’Auteuil

Jordan Doucette
International Affairs and Psychology
*The Catholic Religion and Its Effects on Gender Inequality in Spain*
Adviser: Molly Wallace

Allison Ginwala
International Affairs and English/Journalism
*Cultural Capital: Beauty Advertising in China*
Adviser: Molly Wallace

Adriana Mundy
International Affairs and Sociology
*Contraception Behaviors in Costa Rica: The Influence of Social Institutions on Family Planning Practices*
Adviser: Molly Wallace

Jaden Riendeau
International Affairs and Political Science
*Empowerment through Sports? The Impact of Athletic Participation on Women in Morocco*
Adviser: Molly Wallace

Sydney Skinner
International Affairs and Geography
*Giving Mothers Ownership of their Future: The Need to Legalize Abortion in Chile*
Adviser: Molly Wallace

MUB, Room 334

**International Affairs: Integration or Secession? —Causes and Effects**

Moderator: Molly Doyle

Jasmin Cesko
International Affairs and Political Science
*It’s Time to Move Beyond Dayton: Changing the Constitutional Framework in Bosnia*
Adviser: Molly Wallace

Jamie McDonough
International Affairs and Communication
*Independence in Catalonia, Spain: The Causes Which Impel Them to Separation*
Adviser: Molly Wallace

Conrad Nawrocki
International Affairs and Political Science
*Preventing Catastrophic Dissolution: The Factors and Circumstances That Cause Failure in Political and Economic Unions*
Adviser: Molly Wallace

Tuan Nguyen
International Affairs and Economics
*The Hungarian Economy after The European Integration: Winner or Loser?*
Adviser: Molly Wallace

Michael O’Hara
International Affairs and Sociology
*East and West German Perspectives on Rapid Reunification: An Evaluation of the Economic and Political Effects of German Reunification in the Two Former States*
Adviser: Molly Wallace

Kellie Shea
International Affairs and Russian
*Putin’s Democracy?*
Adviser: Molly Wallace

Avary Thorne
International Affairs and Russian
*Human Rights Protection in Russia Under Putin*
Adviser: Molly Wallace

MUB, Room 336

**International Affairs: Sustainable Development—The Role of Ecotourism, Art and Architecture, and Multinational Corporations**

Moderator: Greg Orifici

Meghan Curtis
International Affairs and Environmental Conservation Studies
*Banana Production in Costa Rica: United Fruit Company and Chiquita’s Impact on Costa Rica’s Development*
Adviser: Molly Wallace

Milana Glukharev-Fleszar
International Affairs and Economics
*Costa Rica: The Accidental Green Tourist*
Adviser: Molly Wallace

Taygra Longstaff
International Affairs and Civil Engineering
*The Role of Architecture in the Revitalization of Bilbao, Spain*
Adviser: Molly Wallace

Austin Manor
International Affairs and Political Science
*Ecotourism and Poverty Alleviation in Costa Rica: Economic Development or Cultural Degradation?*
Adviser: Molly Wallace

Jordan McGrath
International Affairs and Spanish
*Going Beyond the Either-Or of Giving or Taking: Assessing the Importance of Surfing and Surfbreak Protection in Spain*
Adviser: Molly Wallace
MUB, Room 237

**Language, Identity and Culture**

Moderator: Danielle Peterson

**Molly Foye**
Spanish and Anthropology
*Localizing Foreign Languages: A Focus on UNH’s Resources and the Latino Community*
Adviser: Lori Hopkins

**Mitchell Gates (McNair Scholar)**
Linguistics and Philosophy
*Gay Masculinities in Primetime Television*
Adviser: Kevin Healey

**Avery Normandin**
Biomedical Science
*Stampede: Albrecht Dürer’s Rhinoceros and its Influence in the Arts*
Adviser: Rebecca Karo

**Theresa Renker**
Spanish
*Quechua Language Use in Modern Peru: An Investigation of Cultural Authenticity and Identity Construction*
Adviser: Lori Hopkins

**Graham Smith**
Humanities
*Dogma and Heresy in Yevgeny Zamyatin’s Dystopian Novel ‘We’*
Adviser: Ronald LeBlanc

**Gwyneth Welch**
Neuroscience and Behavior
*I’m Going Home: The Resurgence of Sacred Harp Singing in New England*
Adviser: Rose Pruiksma

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MUB, Room 207

**Political Science: Contemporary International Security Challenges**

Moderator: Alden Reed

**Michael Barton**
Political Science
*Non-Nuclear-Weapon States Concerns With the Non-Proliferation Treaty*
Adviser: Lionel Ingram

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MUB, Room 321

**Spanish Linguistics and Literature**

Moderator: John Chaston

**Mary Foster**
Spanish and Linguistics
*Semantic and Syntactic Losses in the English Translation of Allende’s Zorro*
Adviser: John Chaston

**Brenna McLaughlin**
International Affairs and Spanish
*Mentiras mi Maestra me EnseÑó about Spanish Subjunctive: Not so Textbook Black and White*
Adviser: John Chaston

**John O’Mahony**
Spanish
*Variation In Spanish Mood In Evaluative Pseudo-Cleft and Impersonal Constructions*
Adviser: John Chaston

**Robert Sanzo**
Spanish
*Spanish Assertives in the Indicative: Ya Me Imagino That There’s Another Option*
Adviser: John Chaston

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MUB, Room 302

**The Impact of Cultural Expectations**

Moderator: Elizabeth Cilley

**Casey Benner**
Justice Studies and Psychology
*Sometimes the Internet is a Safe Place: Reporting Differences in Unwanted Sexual Experiences*
Adviser: Ellen Cohn
Parents Association Undergraduate Research Symposium

Poster Presentations Session A

Friday, April 25
9:30–10:40 a.m.
Memorial Union Building, Granite State Room

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.

Samantha Arsenault
Neuroscience and Behavior
Investigating Geometric Representations in Rodents
Adviser: Brett Gibson

Devon Ayer
Justice Studies and Family Studies

Chelsea Davignon
Psychology
Who’s Legit: Parents or Peers?
Adviser: Ellen Cohn

Denise Barstow
Recreation Management and Policy
Participation at the 2013 Folklife Festival
Adviser: Boyd Hegarty

Elise Beattie
Nursing
Nurses’ Perceptions of the Barriers to Advocacy Related to Pain Management
Adviser: Joan Hahn

Erica Brasley (McNair Scholar)
Cora Lehet
Lydia Manzo
Benjamin Wormwood (Graduate Student)
Neuroscience and Behavior
Change in Memory Coding Properties of PFC in Long Evans Rats Through Pharmacological Inactivation of Thalamic Input
Advisers: Brett Gibson, Robert Mair

Alexander Buell
Sarah DiIanni
Nicholas Duggan
Patricia Levesque
Alec Rader
Maureen Raubach
Alyssa Reilly
Tyler Weber
Neuroscience and Behavior
Andrew Kitt (Graduate Student)
Jenny Lang (Graduate Student)
Psychology
Eliza Wood
Neuroscience and Behavior and Philosophy
The Psychophysics of Local and Global Stereopsis
Adviser: William Stine

Alexander Buell
Sarah DiIanni
Nicholas Duggan
Patricia Levesque
Alec Rader
Maureen Raubach
Alyssa Reilly
Tyler Weber
Neuroscience and Behavior
Andrew Kitt (Graduate Student)
Jenny Lang (Graduate Student)
Psychology
Eliza Wood
Neuroscience and Behavior and Philosophy
The Effects of Varying Coherence of Glass Patterns on the Perception of Motion Induced Blindness
Adviser: William Stine
Alexander Buell  
Sarah DiIanni  
Alec Rader  
Tyler Weber  

**UNIVERSITY OF NEW HAMPSHIRE**  
**2014 UNDERGRADUATE RESEARCH CONFERENCE**  

**Friday 4/25**  

**Alexander Buell**  
**Sarah DiIanni**  
**Alec Rader**  
**Tyler Weber**  
**Neuroscience and Behavior**  

**Jenny Lang (Graduate Student)**  
**Psychology**  
**Differential Impact of Delta Pedestal on Increment and Decrement Contrast Processing**  
Adviser: William Stine  

**Chelsea Cahill**  
**Nursing**  
**How Nursing Students View Nursing: Changes in Perspectives from the First Year to Senior Year**  
Adviser: Raelene Shippee-Rice  

**Tina Cannon**  
**Psychology and Women’s Studies**  

**Jennifer Hogan**  
**Amy Winkler**  
**Psychology**  
**Unveiling New Hampshire Legislators’ Knowledge and Attitudes About Intimate Partner Violence and Relevant Policies**  
Adviser: Katie Edwards  

**Amber Carlson (Graduate Student)**  
**Psychology and Justice Studies**  

**Nicolas Grafton**  
**Joel Wyatt**  
**Psychology**  
**Bystander Behaviors: The Factors That Impact Intervention Among High School Students**  
Adviser: Kara Anne Rodenhizer  

**Dylan Chase**  
**Hannah Cole**  
**Benjamin Wormwood (Graduate Student)**  
**Neuroscience and Behavior**  
**Neurons in the Prefrontal Cortex Within the Rat Encode Place Information During a Memory Task**  
Advisers: Brett Gibson, Robert Mair  

**Jennifer Dickson**  
**Biomedical Science**  
**What are the Trends in Phenotypic Variation in Harmonia axyridis?**  
Adviser: Matthew Macmanes  

**Samantha Docos**  
**Biomedical Science**  
**Effect of Insulin-Like Growth Factor-1 (IGF-1) on the Expression of NFkB and cFLIP in Bovine Granulosa Cells**  
Adviser: David Townsend  

**Althea Dubravsky**  
**Psychology**  
**Influence of DRD4 on the Temporal Dynamics of Item and Source Memory**  
Adviser: Robert Ross  

**Candice Ellis**  
**Rikki Miller (Graduate Student)**  
**Heather Moreno**  
**Benjamin Wormwood (Graduate Student)**  
**Psychology**  
**Prefrontal Cortical Cells Code for Location and Movement in the Rat**  
Advisers: Brett Gibson, Robert Mair  

**Lisa Flaman**  
**Melissa Ryan**  
**Megan Thompson (Graduate Student)**  
**Genetics**  

**Kendall Milkey**  
**Biomedical Science**  

**Nicole Petersen**  
**Biochemistry, Molecular and Cellular Biology**  
**A Screen to Identify Sodium-Induced Root Skewing Mutants in Arabidopsis thaliana**  
Adviser: Estelle Hrabak  

**Lisa Flaman**  
**Megan Thompson (Graduate Student)**  
**Genetics**  

**Kendall Milkey**  
**Biomedical Science**  
**Identifying Mutation Sites in Protein Phosphatase 2A Causing Sodium-Dependent Root Skewing in Arabidopsis thaliana**  
Adviser: Estelle Hrabak  

**Miranda Francoeur**  
**Cristy Theriault**  
**Psychology**  
**Coding Properties of Prefrontal Cortical Neurons in Rodents During a Spatial Memory Task**  
Advisers: Brett Gibson, Robert Mair  

**Stephanie Gibbons**  
**Psychology and Behavior**  
**Global and Communication Issues in Dentistry**  
Adviser: Christine O’Keefe  

**Benjamin Grotton**  
**Biochemistry, Molecular and Cellular Biology**  
**Detection of Adhesion Molecule Expression in the Bovine Corpus Luteum**  
Adviser: David Townson  

**Emily Guild**  
**Occupational Therapy**  
**Exploration of Reported Social Engagement and Observed Quality of Social Interaction for Youth in Transition with an Autism Spectrum Disorder**  
Adviser: Lou Ann Griswold  

**Mary Holleran**  
**Occupational Therapy**  
**Middle School Girls Friendship Preferences: Attitudes Towards Girls Who Are Obese**  
Adviser: Kerryellen Vroman  

**Judith Hoskin**  
**Genetics and Nutrition**  
**Identification of Palmitoyltransferase Mutants in Arabidopsis thaliana**  
Adviser: Estelle Hrabak  

**Timothy Marquis**  
**Biomedical Science**  
**Distribution and Expression of Glycoprotein Hormone Subunits, GpA2, GTHB, and GpB5, in the Sea Lamprey, Petromyzon marinus**  
Adviser: Stacia Sower  

**Amy Meikleham**  
**Health Management and Policy**  
**Career Progression and Satisfaction in Hospital Administration**  
Adviser: Robert McGrath
Kendall Milkey
Biomedical Science
Megan Thompson (Graduate Student)
Genetics
Characterization of the srs-1 and srs-2 Root-Skewing Mutants of Arabidopsis thaliana
Adviser: Estelle Hrabak

Rikki Miller (Graduate Student)
Elizabeth Smedley
Neuroscience and Behavior
Emily Ryder
Biomedical Science
Memory Coding Properties of Central Thalamus in Rats.
Advisers: Brett Gibson, Robert Mair

Heather Muir
Psychology
The Hidden Differences Between Self-Esteem and Happy/Sad Autobiographical Memories
Adviser: Zorana Ivcevic

Katie Parent
Thomas Reese
Psychology
Who Can I Tell?: The Role of Confidants in Rule-Violating Behavior
Adviser: Ellen Cohn

Victoria Santospago
Music and Music Education
Moving Freely, A Flutist’s Exploration of Body Mapping
Adviser: Jenni Cook

Alexa Schimmel
Nursing
The Experience of Parental Presence During an Acute Neonatal Transport from a Referring Hospital to a Tertiary Care Center: A Qualitative Study
Adviser: Susan Fetzer

Lindsey Shapiro
Neuroscience and Behavior
The Influence of COMT Genetic Polymorphisms on the Temporal Dynamics of Memory Retrieval
Adviser: Robert Ross

Cynthia Siemens
Communication Sciences and Disorders
My Brazilian Sister: A Case Study
Adviser: Mary Jane Sullivan

Erica Vazza (Theo-Steelman Public Service Fellow 2013)
Social Work and Recreation Management and Policy
UNH 2013 Move-out Waste Audit
Advisers: Nate Trauntvein

Caroline Ward
Biomedical Science
Investigating the Interactions Between Cyanobacteria and Vibrio parahaemolyticus
Advisers: Vaughn Cooper, Cheryl Whistler

MUB, Granite State Room
Advanced Technical Writing
Adviser: Christine O’Keefe

Mary Chamard
English Literature
Ethics in Publishing

Russell Contino
Information Systems Management
Professional Writing in Information Technology

Kyla Jones
Nutrition
Discrediting the ‘Thin Ideal’

Nicholas Kane
Economics
Economics of Ethics

Devin McCarthy
Communication
Technical Writing in Sports Media

Robert Post
Communication
Technical Writing in Communication

Parents Association Undergraduate Research Symposium

Oral Presentations, Session B

Friday, April 25
10:50 a.m.–Noon
Memorial Union Building

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.

MUB, Room 233

Analyzing Public Opinion and Discussion on Politics and Popular Culture

Moderator and Adviser: Mark Hungerford

Daniel Crane
Communication
The Dynamics of Public Opinion on Network Neutrality

Kara Gingras
Communication
Public Opinion on NSA Surveillance and Privacy

Mondi Lam
Communication
Americans’ Views on the Fair Minimum Wage Act

Jamie McDonough
International Affairs and Communication
The ‘Truth’: Understanding the Media Audience of the Truth® Campaign
Rachel Strauss
Communication
Polysemy, Polyvalence, and Pink: Audience Responses to Music Videos

MUB, Room 321
Classical Myth and Ovid
Moderator and Adviser: R. Scott Smith
Amber Davis
Classics and Biomedical Science
Ovid’s Manipulation of Myth in Metamorphoses
Richard DiCillo
English and Classics
Caeneus and Cycnus: Ovid’s Ballroom Blitz
Tayler LaHaise
Classics
Old Age as a Disguise in Classical Mythology
Michael Mignanelli
Classics
Ovid Through the Inferno: A study of Ovidian Myth in Dante’s Inferno

MUB, Room 302
Communication and the Body
Moderator and Adviser: Mardi Kidwell
Amanda Flores
Communication and Sociology
Body Behavior as a Function of Gender Display in Marriage Proposals
Brooke Ashley Guertin
Communication
The Significance of Built Space and Body Behavior in Social Interaction

Devin McCarthy
Communication
Communication in Coaching: The Importance of Body Behavior in Sideline Interactions
Mary Wade
Communication and Psychology
The Importance of Gaze in Social Interaction

MUB, Room 237
Feminism in Action: Promoting Social Justice at UNH and Beyond
Moderator: Faina Bukner
Emily Dickman
Social Work, Women’s Studies, and Community Leadership
Adviser: Joelle Ruby Ryan
Maura Gallagher
Sociology and Women’s Studies
Adviser: Joelle Ruby Ryan
Sarah Jones
Women’s Studies
Adviser: Joelle Ruby Ryan
Eleanor Mackenzie
Social Work and Women’s Studies
Adviser: Joelle Ruby Ryan
Evelyn Weston
Art Studio
Adviser: Joelle Ruby Ryan
Amy Winkler
Psychology
Adviser: Joelle Ruby Ryan

MUB, Room 338
Gender, Body, and Religion
Moderator and Adviser: Svetlana Peshkova
Samantha Cotellessa
Anthropology and Women’s Studies
Gender and Politics in Islam

Rachel Draper
Anthropology and Women’s Studies
Education of Women in Egypt
Molly Foye
Spanish and Anthropology
Internalized Oppression Among Yemeni Women: How Economic Change Triggers the Discrimination of Domestic Workers
Aseebulla Niazi
International Affairs and International Business and Economics
Sharia Law and Divorce
Christian Steckler
Philosophy
Contemporary Violence and the Body

MUB, Room 330
International Affairs: Economic Challenges—Financial Crises, Healthcare Spending, and Trade
Moderator: Scott Pruett
Andrea Alie
International Affairs and Economics
Economic Regionalism in Spain: Why are There Inequalities?
Adviser: Molly Wallace
Henry Bowen
International Affairs and Physics
Adviser: Molly Wallace
Brianna Cole
International Affairs and Political Science
¿Viva Argentina? Causes and Consequences of the Economic Crisis in Argentina
Adviser: Molly Wallace
Mark Karetskiy
International Affairs and Economics
A Macroeconomic Analysis of Spain’s Economic and Political Woes
Adviser: Molly Wallace
Brenna McLaughlin
International Affairs and Spanish
Bandaging Up the Effects of Spain’s Cuts: Analyzing Healthcare Spending in Spain
Adviser: Molly Wallace

Cassie Stever
International Affairs and International Business and Economics
Modernization of China and Trade With the U.S.
Adviser: Molly Wallace

MUB, Room 332
International Affairs:
Managing Resources, Natural Disasters, and Environmental Impact
Moderator: Jennifer Purrenhage

Douglas Osborne
International Affairs and Civil Engineering
Environmental Policy, Infrastructure and Practices: A Comparison Between France and the United States
Adviser: Molly Wallace

Darcy Peyser
International Affairs and History
Collaboration in Times of Disaster: Government and NGO Networks
Adviser: Molly Wallace

Andrew Schafer
International Affairs and Political Science
Water Scarcity in the Jordan Valley
Adviser: Molly Wallace

Daniel Zotos
International Affairs and Political Science
The Politics of Fishing: Surveying the Political Economy of the Bluefin Tuna
Fishery in Modern-day Spain
Adviser: Molly Wallace

MUB, Room 334
International Affairs:
Media, Art, Philosophy, and Social Change
Moderator: Aykut Kilinc

Jesse Buell
International Affairs and Spanish
Culture and Gaming: How Different Cultures Approach Online Strategy Games
Adviser: Molly Wallace

Susan Doucet
International Affairs and English/Journalism
The State of the Media in France
Adviser: Molly Wallace

Anthony Hamoui
International Affairs and Communication
The Effects of New Media on Traditional Arab Society
Adviser: Molly Wallace

Jennifer Lindsay
International Affairs and Art Studio
Contemporary Art with Chinese Characteristics: Relations Between Beijing Artists and the Government Post-1989
Adviser: Molly Wallace

Emma Vachon
International Affairs and European Cultural Studies
The Meaning of May: An Exploration of How Intellectual and Philosophical Movements Influenced the 1968 Social Uprisings in France
Adviser: Molly Wallace

MUB, Room 336
International Affairs:
Minority/Immigrant Communities and National Identity: Discrimination and Resilience
Moderator: Jeanne Sokolowski

Amanda Condon
International Affairs and Political Science
Economic Implications of Immigration: How Immigrants Impact Unemployment in Spain
Adviser: Molly Wallace

Jessica Hansen
International Affairs and Political Science
Cultural Barriers: The Integration of North African Immigrants in France
Adviser: Molly Wallace

Luke Hansford
International Affairs and Spanish
Language in Catalonia: A Third Perspective
Adviser: Molly Wallace

Sarah Keane
International Affairs and French
The Extent and Effect of Radical Discrimination of North African Immigrants in France
Adviser: Molly Wallace

Lauren Saucier
International Affairs and English/Journalism
Jewish Identity in Post-WWII Germany
Adviser: Molly Wallace

Rachael Wheaton
International Affairs and Political Science
Understanding National Identity in Spain
Adviser: Molly Wallace
MUB, Rockingham Lounge

**Literary Narratives of Globalization: Tales of Shanghai, Bombay, and Other(ed) Spaces**

Moderator and Adviser: Sandya Shetty

Kaitlynne Bilodeau
English
*The Question of the Human in Capitalist Globalization*

Kelsey Brandon
English Literature
*Fast Fashion and Fakes: The Garment Industry and Personhood in Postcolonial Literature*

Jonathan Constable
English Literature
*Equal City: Examining Verticality and Horizontality in Tash Aw’s Five Star Billionaire and Vikram Chandra’s ‘Shakti’*

Caitlin Rose Duttry
English Literature and Women’s Studies
*Copycat People: Media Imagery and Counterfeit Identities in Tash Aw’s Five Star Billionaire*

Dana Roach
English
*New Urban Imaginaries: Human Sociality and Cyberspace in Five Star Billionaire*

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MUB, Room 207

**Political Science: Post-Conflict Dilemmas and Interventions in Syria**

Moderator: Nicholas Pasquale

Philip Boynton
Political Science
*Policy Recommendation: Responsibility to Protect (Syria)*
Adviser: Lionel Ingram

Mark Gagnon
Political Science
*Coercive Diplomacy in Syria*
Adviser: Lionel Ingram

Amanda Hundley
Political Science
*Analysis and Recommendation of U.S. Policy in Syria*
Adviser: Lionel Ingram

Hannah Waller
Political Science
*Transitional Justice in Post-Conflict Societies: A Case Study of Bosnia-Herzegovina*
Adviser: Mary Malone

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MUB, Room 340

**Political Science: The Pivot to Asia and US Foreign Policy**

Moderator: Michael Cole

Meagan Beckert
Political Science
*U.S. Response to the Current Ukrainian Crisis*
Adviser: Lionel Ingram

Tyler McAfee
Political Science
*Crisis Management in Taiwan*
Adviser: Lionel Ingram

Jonathan Merrill
Economics and Political Science
*The Trade Deficit With China*
Adviser: Lionel Ingram

Tegan O’Neill
Political Science
*The World Energy Project: A Practical Application of Sustainable Energy Development in Ghana*
Adviser: Stacy VanDeveer

Christine Turner
Political Science
*Cross-Straight Corruption: Taiwanese Attitudes Across Sectors*
Adviser: Lionel Ingram

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MUB, Strafford Room

**Race and Gender in Film**

Moderator and Adviser: Delia Konzett

Dylan Arky
English

Madalyn Northcutt
English

James Parolisi
English

Shema Rubdi
Communication
Parents Association Undergraduate Research Symposium

Poster Presentations, Session B

Friday, April 25
10:50 a.m.–Noon
Memorial Union Building, Granite State Room

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.

Christopher Barr
Matthew Sweeney
Tyler Fausnacht
Nicholas Geist
Sean Gribbin
Alex LeBoeuf

Mechanical Engineering
Eric Boudreau
Sean Leighton

Computer Science

Ryan Cahill

Computer Engineering
UNH ROV: Underwater Remotely Operated Vehicle
Advisers: M. Robinson Swift, May-Win Thein

Alecia Bassett
Anthropology and History
Environmental History and its Effects on Eastern United States Traditional Ecological Knowledge
Adviser: Meghan Howey

Evan Beals
Danielle Fournier
Kinesiology

Andrew Doyle
Kinesiology and English/Journalism

Elizabeth Lieblein
Kinesiology and Psychology
Career Preparation Patterns of Early to Mid-Career Professionals in NCAA Division-I Athletic Administration
Adviser: Heather Barber

Amanda Berger
Biomedical Science
Effects of Keratin Filaments on ERK Signaling during Fas-induced Death of Cervical Cancer (HeLa) Cells
Adviser: David Townson

Emma Brown
Linguistics
Wicked Intense: the Grammaticalization of Wicked
Adviser: Maya Ravindranath

Karen Brunetti
Saad Chowdhry
Psychology

Joshua Dolman
Psychology and Family Studies

Eleanor Mackenzie
Social Work and Women's Studies
‘She Had It Coming’: Gender, Age, and a History of Sexual/Physical Assault as Predictors for Rape Myth Endorsement
Advisers: Katie Edwards, Angela Neal

Alexander Buell
Sarah Dilanni
Nicholas Duggan
Patricia Levesque
Alec Rader
Maureen Raubach
Alyssa Reilly
Tyler Weber

Neuroscience and Behavior

Andrew Kitt (Graduate Student)
Jenny Lang (Graduate Student)
Psychology

Eliza Wood
Neuroscience and Behavior and Philosophy
Isolating S-Cone Responses in Koniocellular Layers
Adviser: William Stine

Amanda Buks
Taylor Messina
Jessica Palmer
Nutrition
Evaluating the Healthfulness of UNH's Vending Machines
Adviser: Jesse Morrell

Tina Cannon
Psychology and Women’s Studies

Kelsey Evans
Chloe Flanagan
Ellen Haynes
Ashley MacPherson

Psychology
Should You Stay or Should You Go?: Women's Rationale Behind Leaving or Staying in an Abusive Relationship
Advisers: Katie Edwards, Kara Anne Rodenhizer

Jade Chandronnait
Nursing
Adherence to Daycare Exclusion Policies in New Hampshire
Adviser: Pamela Dinapoli

Angela Cicia
Biochemistry, Molecular and Cellular Biology

Cayla Compton (McNair Scholar)
Wildlife and Conservation Biology
Fecal Steroid Analysis for Monitoring Reproductive Status in Captive Animals
Adviser: Paul Tsang

Joseph Collins
Mechanical Engineering
Exploring Auxetic Designs with 3-D Printing
Adviser: Yaning Li

Paige Driscoll
Anthropology and Art Studio
Voice Scavenger: Improving Public Health Through Public Art
Adviser: Semra Aytur

Cody FitzGerald
Mathematics and Genetics
Mutational Mechanisms of Evolution of Mucoid Types From Burkholderia Small Colony Variants
Adviser: Vaughn Cooper
Joyce Fontaine  
Neuroscience and Behavior  

Nathaniel Stafford (Graduate Student)  
Psychology  
Effects of Socially Induced Early Life Stress in Juvenile Rats on Stress Responsivity and Ultrasonic Vocalizations During Intermittent Swim Stress in Adulthood  
Adviser: Robert Drugan

Mackenzie Gavin  
Nutrition  
The Effect of Parent Education Level on Diet Quality  
Adviser: Jesse Morrell

Kayleigh Greaney  
Kelly Palmer  
Psychology  
Reactions to Intimate Partner Violence Research: A Mixed Methodological Study of Rural Young Adults  
Adviser: Katie Edwards

Matte Horton  
Nursing  
Lateral Violence in Direct Entry Accelerated Masters Nursing Graduates  
Adviser: Pamela Dinapoli

Adele Jones  
Psychology and Theatre and Dance  
Ultrasonic Vocalizations in Rats During Intermittent Swim Stress as an Indicator of Resilience to Social Anxiety  
Adviser: Robert Drugan

Sarah Kinsman  
Animal Science  
Nicolette Schwab  
Biomedical Science  
Factors Influencing Programmed Cell Death (apoptosis) of Human Ovarian Granulosa Tumor Cells  
Adviser: David Townson

Kasey Lesner  
Occupational Therapy  
Examining and Promoting the Role of Assistive Technology for People with Disabilities in the Workplace  
Adviser: Sajay Arthanat

Amy Lovely  
Earth Sciences: Teaching  
Utilizing CoCoRaHS Climate Data to Enhance Climate Literacy at the Middle School Level  
Adviser: Mary Stampone

Emily McDermott  
Zoology  
The Influence of Landscape and Habitat Factors on the Sex Ratio of the New England Cottontail  
Adviser: Adrienne Kovach

Stephanie Parisi  
Biomedical Science  
Examining the Tumorigenic Ability of Cytokeratin 8/18 Filaments in Cervical Cancer Cells In Vitro  
Advisers: Thomas Foxall, David Townson

Kyle Scarano  
Biomedical Science  
Local Communication in Sports Medicine  
Adviser: Michelle Fleetwood

Erin Spaulding  
Nursing  
Instilling Diet and Exercise Confidence: Influence of Nurse Body Size  
Adviser: Joyce Cappiello

Jeffrey Sullivan  
Statistics  
The Predictive Power of a Single Baseball Season  
Adviser: Philip Ramsey

Rebecca White  
Sociology and Geography  
Poverty, Race, and Place: The Spatial Distribution of Poverty and Wealth in Three American Cities  
Adviser: Kenneth Johnson

Molly Williams  
Neuroscience and Behavior  
Drug Reactivity  
Adviser: Robert Drugan

Stephanie Winn  
Nursing  
Quality of Postnatal Care for Mothers and Babies in Nepal  
Adviser: Gene Harkless

Shannon Zimmerman  
Psychology  
Don’t Tell My Parents: The Relation Between Being Caught and Emotions on Delinquency  
Adviser: Ellen Cohn

MUB, Granite State Room  
Advanced Technical Writing  
Adviser: Christine O’Keefe

John DeGennaro  
Anthropology  
Radio in the Age of the Internet  

Joel Kost  
English/Journalism  
Technical Writing in Journalism  

Matthew Lautenschlager  
Linguistics  
What Body of Knowledge Means to You  

Michael Pastore  
English and Psychology  
Technical Writing Issues in the Freelance Writing World  

Melanie Pryor  
Hospitality Management  
Technical Writing in Hospitality  

Kelsey Slade  
English  
Technology and the World of Journalism  

Erin Sobecki  
Geography  
Technical Writing in Geography  

Lindsey Zolot  
Communication  
Technical Writing and Journalism
Parents Association Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 25
12:15–1:25 p.m.
Memorial Union Building

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MUB, Room 321

Asian American Graphic Narratives

Moderator and Adviser: Monica Chiu

Ellyn Dugan
English Teaching
The Hidden Agenda: Race and Sexuality in the Graphic Narrative Skim

Colleen Graham
English
On Color and Racial Stereotyping in Chew and Shortcomings

Hannah Rivers
English/Journalism
The Anomalous Depiction of Text in Chew and How Groensteen’s “The Balloons in the Page” Substantiates its Contribution to Content and Meaning

MUB, Room 207

Critical Approaches to Literature

Moderator: TBD

Jonathan Constable
English Literature
A Bloody Racist: Interpreting Heart of Darkness and An Image of Africa
Adviser: Petar Ramadanovic

Ashley Doonan
English Literature
Trauma Memory in Heart of Darkness
Adviser: Petar Ramadanovic

Colton Huelle
English Literature
Interpretation and Experience: J. Hillis Miller’s Reading of Heart of Darkness
Adviser: Petar Ramadanovic

Marisa Milone
English Literature
Reader-Response Theory vs. Feminist Criticism
Adviser: Petar Ramadanovic

MUB, Room 302

Film Genre

Moderator and Adviser: Delia Konzett

Dylan Arky
English

Bridget Costello
English

Stephanie Royka
Genetics

Shema Rubdi
Communication

Taylor Walton
English

MUB, Room 330

Merging Theory and Practice: Knowledge Construction in the 21st Century

Moderator: Janet Cass

Joseph Collins
Mechanical Engineering
Exploring Auxetic Designs With 3-D Printing
Adviser: Yaning Li

Joel Ford (McNair Scholar)
Chemical Engineering
Fabrication of Biomass-Based Activated Carbons for Removal of Emerging Contaminants from Water
Adviser: Jillian Goldfarb

Adrienne Hill (McNair Scholar)
Civil Engineering
Experimental and Theoretical Evaluation of Internal Loads in Underground Retaining Structures
Adviser: Majid Ghayoomi

Avery Normandin
Biomedical Science
The Role of Broadly-Neutralizing Antibodies in HIV-1 Vaccinology
Adviser: Thomas Pistole
Maxwell Renke  
Computer Science  
The Role of Alternative Currencies in the Global Marketplace: Bitcoins and Other Alternative Currencies  
Adviser: Radim Bartos  

Ann Steeves (McNair Scholar)  
Ecogastronomy and Health Management and Policy  
The 4-H Essential Elements: Evaluation of Program Implementation and Evidence of Impact  
Adviser: Robert McGrath  

MUB, Room 332  
Political Science: American Politics and Perspectives in Transition  
Moderator: Christina Pretorius  

Ariel Berry  
Political Science  
Literature: A Means of Transcending a Misogynistic Society  
Adviser: Marla Brettschneider  

Ashley Marcoux  
Political Science  
Erasing the Line Between the Private and Public Sphere  
Adviser: Marla Brettschneider  

Alexxandre Schlieder  
Political Science  
The Breakdown of Bureaucracy in Response to Hurricane Katrina and Why it Matters  
Adviser: Alyynna Lyon  

Sophia White  
Political Science and English Literature  
Capital Punishment in the United States: A Dynamic Entity  
Adviser: Richard Aliano  

MUB, Room 334  
Political Science: Environmental Politics and Policies  
Moderator: Stacy VanDeever  

Jacob Belanger  
Political Science  
The United States Senate: Dynamics of Energy Policy Reform  
Adviser: Susan Siggelakis  

James Caviston  
Political Science  
Green Politics  
Adviser: Stacy VanDeever  

Sarah Eigenbrode  
Political Science  
Patterns of Industrialized Farming  
Adviser: Stacy VanDeever  

Rebecca Gobeil  
Sustainable Agriculture and Food Systems  
The Path of Tuna, The Path of Destruction  
Adviser: Stacy VanDeever  

Tegan O’Neill  
Political Science  
Not in my Backyard: Citizen Attitudes and Disaster Preparedness Policies at the Local Level  
Adviser: Stacy VanDeever  

MUB, Room 336  
SEEDS of Change  
Moderator: Kristi Dixon  

Danielle Blevens  
Psychology and Social Work  
Empowerment  
Adviser: Katie Edwards  

McKenzie Dow  
Psychology  
Laying the Foundation for Growth  
Adviser: Katie Edwards  

Jennifer Turner  
Psychology  
Exploring the Power of Positive Outcomes in Survivors  
Adviser: Katie Edwards  

MUB, Room 237  
UNH Feminist Leadership  
Moderator: Joelle Ruby Ryan  

Emily Dickman  
Social Work and Women’s Studies and Community Leadership  
Feminist Leadership at the Waysmeet Center  
Adviser: Faina Bukher  

Erica Tamposi  
Communication  
Feminist Leadership in the Women’s Studies Program  
Adviser: Faina Bukher  

Samantha Webb  
Family Studies and Women’s Studies  
A Feminist Vision  
Adviser: Faina Bukher  

Danielle Zamarchi  
Sustainable Agriculture and Food Systems  
Feminism is a Process  
Adviser: Faina Bukher  

MUB, Room 304  
Updating Homer  
Moderator and Adviser: Michael Ferber  

Benjamin Bertrand  
History  
The Legacy of Achilles  

Adrienne Bode  
English Teaching  
Helen as the First Feminist Character  

Jacklyn Trexler  
English  
The Sherlock Holmes of Ithaca
Peter T. Paul College of Business and Economics Undergraduate Research Conference

Poster Presentations

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

Paul College Building, Great Hall
10 a.m.–11:30 a.m.

Accounting and Finance Posters
Moderator: Wenjuan Xie

Lindsey Byrne
Accounting
Accounting For Financial Instruments: Difficulties With Fair Value Measurement and Reporting
Adviser: Le (Emily) Xu

John Cicci
Finance
The Solar Industry and its Potential for Feasible Investments
Adviser: Wenjuan Xie

Daniel Cray
Accounting and Finance
Wine as an Investment
Adviser: Ahmad Etebari

Daniel Gravina
Accounting and Finance
Proposed Audit Reporting Changes: Considerations of Stakeholders’ Perspectives
Adviser: Michael Ozlanski

John Kerrigan
Finance
Performance of Different Types of Real Estate: 1978-2012
Adviser: Ahmad Etebari

Abby Lamothe
Accounting
Farm Business Management: A Localized Analysis of Financial Tools Utilized in Agribusiness
Adviser: David Hasseldine

Binh Nguyen
Accounting and Finance
Leverage Buy-out Case Study
Adviser: David Hasseldine

Casey Wade
Accounting
Auditing the Auditors: Are Investors Listening?
Adviser: Michael Ozlanski

Paul College Building, G25
Noon–1:30 p.m.

Business Analytics and Spreadsheet Modeling
Moderator: Benjamin Porter

Cailee Alper
Ashley Wright
Finance and Information Systems Management

Katie Chen
Keenan Fosman
Accounting and Information Systems Management
Classroom Schedule Optimization
Adviser: Benjamin Porter

Jonathan Banker
Information Technology
Cody Fischer
Information Systems Management and Marketing

Kelly Horton
Samuel Pierce
Information Systems Management
UNH Housing Pricing Model
Adviser: Benjamin Porter

Ana Capuano
Information Systems Management
Logan Gagne
Information Technology
Sovanaka Liek
Information Systems Management and Finance
Student Schedule Optimization
Adviser: Benjamin Porter

Brian Cocozziello
Information Systems Management and Finance

Christopher Thornton
Entrepreneurial Studies and Information Systems Management
Gymnasium Schedule Optimization
Adviser: Benjamin Porter

William Dalrymple
Information Systems Management
Brandon Shea
Information Systems Management and Management

Duncan MacArthur
Information Systems Management and Finance
Virginia Waste Services Driver Optimization
Adviser: Benjamin Porter

Alexander Dunn
James Tasiopoulos
Information Systems Management and Finance

Nicholas Kaschak
Information Systems Management and Economics

Eric Muise
Information Systems Management and Management
Dining Hall Schedule Optimization
Adviser: Benjamin Porter
Paul College, Great Hall  
Noon–1:30 p.m.  

**Economics Capstone Research Projects**  

**Moderator:** Aziz Saglam  

**Travis Begin**  
Economics  
**Social Costs of Alcohol Consumption**  
Adviser: Aziz Saglam  

**Carolyn Bradley**  
Justice Studies and Economics  
**Do Hiatuses During TV Show Seasons Impact Ratings and Viewer Retention Rates?**  
Adviser: Aziz Saglam  

**Kelly Galvin**  
Economics  
**Does Money Buy Happiness?**  
Adviser: Aziz Saglam  

**Joshua Goodrich**  
Economics  
**Effects of Accession on Trade in the EU**  
Adviser: Aziz Saglam  

**Zachary Goumas**  
Economics  
**The Spillover Effects from New Hampshire Tax Credits**  
Adviser: Aziz Saglam  

**John Habzda**  
Economics  
**The Economic Impact of Electric Utility Deregulation in the U.S.**  
Adviser: Aziz Saglam  

**Dennis Horten**  
Economics  
**Is Community Supported Agriculture an Indicator of Economic Prosperity?**  
Adviser: Aziz Saglam  

**Stephanie Ingalls**  
Economics  
**Measuring the Effects of Taxation on Cigarette Consumption**  
Adviser: Aziz Saglam  

**Greg Jackson**  
Economics  
**Race and Gender: Differences in Peak Salary**  
Adviser: Aziz Saglam  

**Jack Landry**  
Economics and Management  
**The Impact of Successful Sports Organizations on Local Economies**  
Adviser: Aziz Saglam  

**Alex Loiseau**  
Economics  
**Minimum Wage and the Poverty Rate**  
Adviser: Aziz Saglam  

**Eric McCann**  
Economics  
**Do Americans Work Too Much? The Effects of a Shorter Work Week on Productivity**  
Adviser: Aziz Saglam  

**Jonathan Merrill**  
Economics and Political Science  
**What Drives the Long Term Euro/USD Exchange Rate?**  
Adviser: Aziz Saglam  

**Sishemo Mwesigwa**  
Economics  
**3G/4G Network & App Market**  
Adviser: Aziz Saglam  

**Viet Ha Nguyen**  
Economics  
**How U.S. Higher Education Affects the Labor Market and Economy**  
Adviser: Aziz Saglam  

**Sean Oddy**  
Economics  
**Evolution of Scoring in Hockey**  
Adviser: Aziz Saglam  

**Bradley Olmsted**  
Economics  
**Societal Effects of Government Military Expenditures in Developing Countries**  
Adviser: Aziz Saglam  

**Gino Orlando**  
Economics  
**The Economics of Cybercrime**  
Adviser: Aziz Saglam  

**Tyler Rousseau**  
Economics  
**Impact of Ski Lift Ticket Prices on Mountain Attendance**  
Adviser: Aziz Saglam  

**Michael Sanchez**  
Economics and Philosophy  
**How Has Microfinance Lending Affected Hiring By Small Businesses in the U.S.?**  
Adviser: Aziz Saglam  

**Michael Soltys**  
Economics  
**How to Buy Wins in the NBA**  
Adviser: Aziz Saglam  

**Tiffany Waters**  
Economics  
**What Factors Make a Box Office Hit?**  
Adviser: Aziz Saglam  

**Daniel Weidman**  
Economics  
**Do New Stadiums Help Teams Perform Better?**  
Adviser: Aziz Saglam  

**Samuel Williams**  
Economics  
**Matching Theory and Market for National Football League Coaches**  
Adviser: Aziz Saglam  

Paul College Building, Great Hall  
10 a.m.–11:30 a.m.  

**Economics of Sports**  

**Moderator:** James Wible  

**Brad Blais**  
Undeclared  
**How to Build a Team: Indiana Pacers vs. Miami Heat**  
Adviser: James Wible  

**John Corona**  
Economics  
**Seattle Seahawks Roster Evaluation**  
Adviser: James Wible  

**Scott Cote**  
Management  
**Sports Economics**  
Adviser: James Wible
Zachary Dhionis  
Information Systems Management  
*Economics in the PGA Tour*  
Adviser: James Wible

Aaron Dow  
Economics  
*Economic Evaluation of the Boston Bruins Roster and Allocations*  
Adviser: James Wible

Michelle Gearin  
Finance and Economics  
*Economic Evaluation of Celtic’s Home Game Ticket Pricing*  
Adviser: James Wible

Matthew Gioia  
Information Systems Management  
*The Economics of Sports Research Econ 698*  
Adviser: James Wible

James Landry  
Entrepreneurial Studies and Economics  
*Economic Impact of a New UNH Football Stadium*  
Adviser: James Wible

Colin MacArthur  
Information Systems Management  
*Detroit Red Wings Roster Valuation*  
Adviser: James Wible

Duncan MacArthur  
Information Systems Management  
*Toronto Maple Leafs Roster Valuation*  
Adviser: James Wible

Eric McCann  
Economics  
*The Economics of Success: A Roster Valuation of the New England Patriots*  
Adviser: James Wible

Catherine Putney  
Economics  
*Chicago Blackhawks: Salary Cap and Roster Valuation*  
Adviser: James Wible

Benjamin Randall  
Economics  
*Roster Evaluation of the Minnesota Wild*  
Adviser: James Wible

Philip Sophinos  
Mathematics, Interdisciplinary  
*2014 Milwaukee Brewers Roster Evaluation*  
Adviser: James Wible

Evan Taylor  
Mechanical Engineering  
*NCAA & Paying Athletes*  
Adviser: James Wible

Travis Worra  
Statistics and Economics  
*The Rise of the Beautiful Game in America*  
Adviser: James Wible

**Paul College, G25 10 a.m.–11:30 a.m.**

**Multidisciplinary Posters**

**Moderator: Pei-Jou Kuo**

Brian Bissonette  
Economics and Management

Gregory Cuoco  
Management

Cameron Perl  
Electrical Engineering  
*PAPaya Prevention*  
Adviser: Marc Sedam

Kellen Busby  
Information Systems Management

Matthew Newton  
Information Systems Management and Management

Emma Smith  
Accounting and Information Systems Management  
*Enterprise Level Data Mapping*  
Adviser: Kholekile Gwebu

Nicholas Cornell  
Economics

Emily Faller  
Marketing

Nathan Provencher  
Finance and Economics  
*Monetary Policy in Emerging Markets*  
Adviser: Evangelos Simos

Alyssa Dupont  
Hospitality Management  
*An Examination of Chain Restaurants Exterior Colors*  
Adviser: Pei-Jou Kuo

Marnee Dupont  
Hospitality Management  
*It's Not the Serve, But the Return*  
Advisers: Valentini Kalargyrou, Carl Lindblade

Allen Gersky III  
Daniel Lambert  
Economics and Finance  
*Impacts of the Financial Crisis on an Industrialized Country*  
Adviser: Evangelos Simos

Hayley Harmon  
Ecoastronomy and Economics  
*Network Transaction Costs: Comparative Review of Italian & US Pork Production*  
Adviser: Neil Niman

Kira Jacobsen  
Sarah Sullivan  
Information Systems Management and Finance

Lillian Weimer  
Information Systems Management and Accounting  
*Mobile Authentication*  
Adviser: Kholekile Gwebu

Eric McCann  
Economics

Sarah Wiggins  
Management  
*Sustainability and Business: A Review of Annie’s Homegrown, Inc.*  
Adviser: Fiona Wilson

Viet Ha Nguyen  
Economics  
*Cost-Effectiveness Analysis of Smoking Cessation*  
Adviser: Robert Woodward

Hannah Tripp  
International Business and Economics and Finance  
*The Effects of Social Media on Brand Image*  
Adviser: Meera Venkatachalam
Paul College, G45
Noon–1:30 p.m.

Ecogastronomy: Capstone Research and Projects

Moderator: Daniel Winans

Bryan Boucher
Ecogastronomy and Economics
Grove Grocery: A Business Model for a Small-Scale Specialty Foods Shop in Portsmouth, NH
Adviser: Daniel Winans

Sarah Brown
Ecogastronomy and Environmental Conservation Studies
An Exploration of Community Gardens: Bringing People Together and Food-Insecurity Out?
Adviser: Daniel Winans

Samantha Dinnan
Ecogastronomy and Anthropology
The Fats of Life: A History of Dietary Fats
Adviser: Daniel Winans

Zoe Farricker
Ecogastronomy and Nutrition
School-Based Outcomes of a Successful Farm-to-School Garden Program
Adviser: Daniel Winans

Acacia Kreidermacher
Ecogastronomy and Nutrition
Importance of Family Meals: UNH Students’ Perceptions of Family Meal Times
Adviser: Daniel Winans

Megan Letendre
Ecogastronomy and Sustainable Agriculture and Food Systems
Salanova Transplants vs. Direct Sown Lettuce: Days to Harvest, Cost, Labor and Yield Study
Advisers: Andrew Ogden, Daniel Winans

Meghan Lusty
Ecogastronomy and Tourism Planning and Development
The Last Hope for the Hive
Adviser: Daniel Winans

Emily McKeen
Ecogastronomy
A New Approach to Urban Farming: Shipping Container-to-Table
Adviser: Daniel Winans

Kendra Moffett
Ecogastronomy and Nutrition
Creating an Allergy Policy: St Paul’s School, Concord, NH
Adviser: Daniel Winans

Taylor Nelson
Ecogastronomy and Communication
Expanding Seacoast Markets: A Proposal to Bring a Winter Farmers Market to UNH
Adviser: Daniel Winans

Olivia Newhall-Thayer
Ecogastronomy, French, and Hospitality Management
Fast and Nutritious: Changing the Face of Fast Food
Adviser: Daniel Winans

Emily Nicholson
Sustainable Agriculture and Food Systems
Emma’s Home Grown: Business Proposal of a Raised Bed Installation and Maintenance Service for the Seacoast Area
Adviser: Daniel Winans

Amanda Parks
Ecogastronomy and Nutrition
Mobile Merroir: A New Approach to Rediscovering Local Seafood
Adviser: Daniel Winans

Courtney Ruffen
Ecogastronomy
Wine Labeling Uncorked
Adviser: Nelson Barber

Ann Steeves (McNair Scholar)
Ecogastronomy and Health Management and Policy
The Luquillo Farm Sanctuary: A Case Study of the Energy Exchange Program
Adviser: Daniel Winans

Emily Tassinari
Ecogastronomy and Biology
Adviser: Janet Sullivan

Paul College Building, G25,
Noon–1:30 p.m.

Marketing Posters

Moderator: Lin Guo

Meredith Cline
Marketing
Analyzing the Effects of Environmental Constraints on Local Business
Adviser: Lin Guo

Sarah Daigle
Marketing and Psychology
UNH Women in Business
Adviser: Melissa Bishop

Sarah Daigle
Marketing and Psychology
Self-Theory and its Impact on Brand Attachment
Adviser: Lin Guo

Ryan Hovey
Marketing
Past and Current Marketing Efforts in Russia
Adviser: William Machanic

Alexa LoMonaco
Marketing and Information Systems Management
Smart Phone Purchasing Habits Among the University of New Hampshire Students
Adviser: M. Billur Akdeniz

David Mesa
Finance and Economics
Assessing Hispanic Culture Relevance in the U.S. When Creating a Marketing Strategy
Adviser: Peter Masucci
Peter T. Paul College of Business and Economics
Undergraduate Research Conference

Oral Presentations

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

Paul College, Room 125
10–11:30 a.m.
Marketing Workshops, Session I

Moderator and Adviser:
Peter Masucci

Ashley Babineau
Richard Bernardi
Kevin Davis
Alyssa Johnson
Nicholas Nolin
Kerry O'Connor
Alex Pepicelli
Leah Preble
Benedetto Weigler
Marketing
Cara Carter
Marketing and Management

Development of a Marketing Campaign to Increase Awareness of the UNH Employee Health Clinic, and to Help Drive Greater Utilization by Faculty and Staff

David Biondo
Brett Cole
Nicole Eberhart
Jacquelyn Murtha
Robert Peiffer
Maxwell Penfield
Caitlin Pennycuick
James Spadae
Marketing
Daniel Crowley
Marketing and Entrepreneurial Studies
Research and Development of Marketing Programs to Assist in the Launch of an Online eCommerce Shopping Website for Tuscan Kitchen and Market

Taylor Cefalo
Kevin Cyr
Cameron Frank
Brett Geer
Tracey Nicholson
Julia O'Brien
Jordan Pritikin
Scott Ricketts
Nikollette Storro
Marketing
Drew Gaberseck
Marketing and Finance
Enterprise Rent-A-Car: Research and Development of a Marketing Campaign to Attract UNH Students to Apply for Full-Time Positions in the Company's Management Training Program

Christopher Clapp
Brienne Cox
Christopher Dunleavy
Cody Jaskot
Sean Leahy
Margaret Rounds
Taylor Sherman
Jacob Shillue
Marketing
Melissa Karpel
Emily Stone
Marketing and Management
Gabe's Café: Development and Implementation of a Marketing Campaign to Increase Awareness of, and Drive Business to This Café/Restaurant

Paul College, Room 115
Noon–1:30 p.m.
Marketing Workshops, Session II

Moderator and Adviser:
Peter Masucci

Nathan Angus
Adam Stokes
Marketing and Finance
Ross Batchelder
Danielle Bonner
Barret Guild
Mackenzie Joyce
Derek Shea
Marketing
Sarah Daigle
Marketing and Psychology
Michael Marinelli
Marketing and International Business and Economics
MyLockBox.net: Research Into the Market Opportunity for On-premises Personal Safes, and the Development of Marketing Programs to Promote and Increase Sales

Sara Barone
Ryan Hovey
Emily Jennison
Lindsey Mahoney
Carl Sutkus
Marketing
Michael Boeri
Marketing and Communication
Hillary Flanagan
Marketing and International Business and Economics
Cole Jaillet
Marketing and Entrepreneurial Studies
Brittani LeBel
Marketing and Management
Taylor Perras
Marketing and Hospitality Management
Chloe Swift
Marketing and English
Shop UNH: Research, Development and Implementation of a Marketing Plan for This Online University eCommerce Website
Kristen Bellomo  
Nathan Mainemer  
Marketing and Management  
Christina Cooper  
Ryan Hegarty  
Daniel Karambelas  
Erin McCormick  
John Milbank  
Marketing  
Alexa LoMonaco  
Marketing and Information Systems  
Management  
Joshua Sokol  
Marketing and Entrepreneurial Studies  
FroyoWorld: Research and Development of a Marketing Plan and Promotional Programs Aimed at Increasing Awareness of, and Traffic to This Frozen Yogurt Franchise Shop  
Meghan Bridges  
Tucker Cutter  
Marketing and Finance  
Kelly Dow  
Jessica Jamison  
Keri Longacre  
Tobey Miller  
Thomas Ryan  
Rebecca Turner  
Jonathan Wu  
Marketing  
Bridget Fay  
Marketing and Entrepreneurial Studies  
Museum of Art: Research and Development of a Marketing Plan and Promotional Program to Increase Attendance and Membership at the UNH Museum of Art

Paul College, Room 135  
12:45–2:15 p.m.

Paul College Atkins Investment Group  
Moderator and Adviser:  
Ahmad Etebari  
Charles Almeida  
James Miller  
Finance and Accounting  
Jay Camper  
Finance  
Industrials Team  
Janine Appleton  
Biomedical Science  
John Kerrigan  
Nicholas Sorkin  
Finance  
Healthcare Team  
Austin Bauer  
Eric Paul  
Finance  
Connor Slein  
Political Science  
Portfolio Strategy Team  
Douglas Cataldo  
Ryan Feeney  
Nicholas Ventresca  
Finance  
Financials Team  
John Cicci  
Finance  
Bryan Merrill  
Political Science  
Environmental, Social, and Governance Team  
Gaetan Ciot  
Peter Guy  
Victoria Hexeberg  
Finance  
Consumer Discretionary Team  
Daniel Cray  
Tyler Walsh  
Accounting and Finance  
Victoria Hexeberg  
William McCarran  
Finance  
Daniel Lambert  
Economics and Finance  
Executive Officer Team  
Anna Darling  
Information Systems Management  
Daniel Lambert  
Economics and Finance  
John Stowell  
Mechanical Engineering  
Energy Team  
Matthew Doubleday  
Finance and Accounting  
Matthew Maloney  
Finance  
Telecom Team  
Ryan Lavin  
Applied Mathematics and Statistics  
Patrick Sloyan  
Adam Thompson  
Finance  
Consumer Staples Team  
Jacob Lehoux  
Scott Morris  
James Taylor  
Finance  
Basic Materials Team  
Brian Lowell  
Accounting and Finance  
Alexander Ossinger  
John Schwartz  
Finance  
Utilities Team  
Jason Michonski  
Jeffrey Wyer  
Finance  
Brandon Ossinger  
Information Systems Management  
Technology Team  

Paul College, Room G45  
10–11:30 a.m.

Multidisciplinary Oral Presentations  
Moderator: Reagan Baughman  
Travis Begin  
Economics  
The Growth and Transformation of the Temporary Job Market  
Adviser: Reagan Baughman  
Derek Cummings  
Management and Marketing  
Julie Fierley  
Alexandra Malagodi  
Nicolette Nasiopoulos  
Marketing  
Minicase Study: Nikon’s COOLPIX  
Adviser: Ludwig Bstieler  
Bradley Olmsted  
Economics  
Quantitative Analysis of Disparities in US Unemployment Rates  
Adviser: Ju-Chin Huang
**The Naked Arts—Creativity Exposed**

**Act III**

**Friday, April 25**

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.

*Jennifer Lindsay*

International Affairs and Art Studio

*Richardson Smith*

Music Theory

*Alexa Wynschenk*

Theatre and English Teaching

*La Verdad de Las Mujeres: a Naked Arts Collaboration*

Advisers: Szu-Feng Chen, Rob Haskins, David Kaye, Jennifer Moses

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**College of Health and Human Services**

**Grimes Award Competition**

**Friday, April 25**

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.

*Melissa Copeland*

Psychology and Women’s Studies

*It Was My Fault: Rape Myths and Self-Blame From the Survivor’s Perspective*

Adviser: Victoria Banyard

*Meghan Craig*

Psychology

*Risk of Non-Suicidal Self-Injury Among Sexual Minority Young Adults: The Role of Minority Stress and Psychological and Behavioral Health*

Adviser: Katie Edwards

*Laura Gaines*

Psychology

*Student Attitudes Towards Alcohol Consumption*

Adviser: Rebecca Warner

*Ellen Haynes*

Psychology

*Family, Identity, and Autobiographical Memory*

Adviser: Carolyn Mebert

*Jennifer Hogan*

Psychology

*Parental Conversation Style and Children’s Scientific Memory*

Adviser: Michelle Leichtman

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**Psychology Department**

**George M. Haslerud Undergraduate Research Conference**

**Friday, April 25**

1:30–5 p.m.

*Conant 101*

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.

*Melissa Copeland*

Psychology and Women’s Studies

*It Was My Fault: Rape Myths and Self-Blame From the Survivor’s Perspective*

Adviser: Victoria Banyard

*Meghan Craig*

Psychology

*Risk of Non-Suicidal Self-Injury Among Sexual Minority Young Adults: The Role of Minority Stress and Psychological and Behavioral Health*

Adviser: Katie Edwards

*Laura Gaines*

Psychology

*Student Attitudes Towards Alcohol Consumption*

Adviser: Rebecca Warner

*Ellen Haynes*

Psychology

*Family, Identity, and Autobiographical Memory*

Adviser: Carolyn Mebert

*Jennifer Hogan*

Psychology

*Parental Conversation Style and Children’s Scientific Memory*

Adviser: Michelle Leichtman
Adele Jones  
Psychology and Theatre: Dance  
Nathaniel Stafford (Graduate Student)  
Psychology  
Ultrasonic Vocalizations in Rats during Intermittent Swim Stress as an Indicator of Resilience to Social Anxiety  
Adviser: Robert Drugan

Andrew Minigan  
Psychology  
The Reminiscence Bump in Priests’ Life Stories  
Adviser: David Pillemer

Heather Muir  
Psychology  
The Hidden Differences Between Self-Esteem and Happy/Sad Autobiographical Memories  
Adviser: Zorana Ivcevic

Amy Oldenquist  
Justice Studies and Psychology  
Power of Peers: The Effects of Peer Legitimacy and Peer Delinquency on Rule Violating Behavior  
Adviser: Ellen Cohn

Chelsea Parent  
Psychology  
Variations in Cognitive Orientation Among Adolescents  
Adviser: Juan Chavajay

Elizabeth Wible  
Psychology  
Sexual Violence and Relationship Abuse Among College Students: The Bystander Intervention Process  
Adviser: Victoria Banyard

Joel Wyatt  
Psychology  
Social Support and Coping Self-Efficacy as Moderators of the Relationship Between Intimate Partner Violence and Health Outcomes  
Adviser: Katie Edwards

Sarah Fenerty  
English  
The Unique One  
Adviser: Delia Konzett

Allison Ginwala  
International Affairs and English/Journalism  
Cultural Identity of Chinese and Chinese American Women and the Westernized Notion of ‘Ideal Beauty.’  
Adviser: Delia Konzett

Amanda Plante  
English  
S(i)ntax of the White Divine: Repurposing English and the Concept of Divinity in Phillis Wheatley’s Elegiac Style  
Adviser: Reginald Wilburn

Dana Roach  
English  
The Cold Surrender of Midnight’s Passing  
Adviser: Delia Konzett

Elizabeth Barker  
English Teaching and Political Science  
Materialism in the Democratic Community  
Adviser: Ellen Cohn

Tess Congo  
English  
Domestic Drama in Poetry  
Adviser: Delia Konzett

Amy Conte  
English  
Deterritorialization in Ma Rainey’s Black Bottom  
Adviser: Reginald Wilburn

Richard DiCillo  
English and Classics  
An Unbroken Series of Successful Gestures: Queer Theory in The Great Gatsby  
Adviser: Sarah Sherman

Caitlin Rose Duttry  
English Literature and Women’s Studies  
Between Black Bodies: Liberator Female Relationships in Alice Walker and Zora Neale Hurston’s Masterpiece Novels  
Adviser: Reginald Wilburn

Joshua Hamor  
Philosophy  
Timothy Williamson on the Relation Between Counterfactual Thinking and Metaphysically Modal Thinking  
Adviser: Paul McNamara

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**Honors English Undergraduate Research Conference**

**Friday, April 25**

**2–6 p.m.**

**Hamilton-Smith Hall, English Department**

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

**Elizabeth Barker**  
English Teaching and Political Science  
Materialism in the Democratic Community  
Adviser: Ellen Cohn

**Tess Congo**  
English  
Domestic Drama in Poetry  
Adviser: Delia Konzett

**Amy Conte**  
English  
Deterritorialization in Ma Rainey’s Black Bottom  
Adviser: Reginald Wilburn

**Richard DiCillo**  
English and Classics  
An Unbroken Series of Successful Gestures: Queer Theory in The Great Gatsby  
Adviser: Sarah Sherman

**Caitlin Rose Duttry**  
English Literature and Women’s Studies  
Between Black Bodies: Liberator Female Relationships in Alice Walker and Zora Neale Hurston’s Masterpiece Novels  
Adviser: Reginald Wilburn

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**Philosophy Department Undergraduate Research Conference**

**Friday, April 25**

**4–8:30 p.m.**

**Murkland Hall**

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

**Joshua Hamor**  
Philosophy  
Timothy Williamson on the Relation Between Counterfactual Thinking and Metaphysically Modal Thinking  
Adviser: Paul McNamara
Cory McKenzie
History, Philosophy, and Classics
Seeking Old Japan: Heidegger, Hegel, and the Philosophy of Folklore
Adviser: Timm Triplett

Kathryn O’Malley
Philosophy
Philosophizing with Children
Adviser: Timm Triplett

Christian Steckler
Philosophy
Contemporary Violence and the Body II
Adviser: Svetlana Peshkova

Timothy Vorachak (McNair Scholar)
Philosophy
Stereotypes and Counter-stereotypes
Adviser: Willem De Vries

Trevor Frost
Music Education
Arabian Journey
Adviser: Andrew Boysen

Katja Kleynesteuber
Music Education
Untitled Brass Quartet
Adviser: Ryan Vigil

Ian Nelson
Music Education
Marimba Duet
Adviser: Andrew Boysen

Frank Noah
Music
String Quartet for String Quartets—A String Quartet
Adviser: Michael Annicchiarico

Richardson Smith
Music Theory
Nantucket Flood/Porch Orange Glow
Adviser: Michael Annicchiarico

Erica Brasley (McNair Scholar)
Rikki Miller (Graduate Student)
Neuroscience and Behavior
Memory Coding Properties of Central Thalamic Neurons: Relationship to Prefrontal Neuronal Coding
Adviser: Robert Mair

Cody FitzGerald
Mathematics and Genetics
Mutational Mechanisms of Evolution of Mucoid Types From Burkholderia Small Colony Variants
Adviser: Vaughn Cooper

Katarina Kieleczawa
Environmental Sciences
Hummingbird (Trochilidae) Species Diversity and Habitat Transformation in Neotropical Cloud Forest
Adviser: Alan Master

Kendall Milkey
Biomedical Science
Megan Thompson (Graduate Student)
Genetics
Characterization of the srs-1 and srs-2 Root-Skewing Mutants of Arabidopsis thaliana
Adviser: Estelle Hrabak

Kadina Mazic
Biochemistry, Molecular and Cellular Biology
The Use of First Principle Analytical Techniques in Order to Determine the Effect of pH on the Colloidal Properties of Monoclonal Antibodies.
Advisers: Dana Filoti, Thomas Laue, Carrie May

Student Composers’ Concert
Friday, April 25
8 p.m.
Bratton Recital Hall,
Paul Creative Arts Center

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.

Nathan Faro
Music Theory
Wind Quintet #1 ‘Pioneer’
Adviser: Michael Annicchiarico

Nathan Faro
Music Theory
The Snowman (for Mezzo-Soprano and Piano)
Adviser: Michael Annicchiarico

Trevor Frost
Music Education
A Nightingale Serenade
Adviser: Andrew Boysen

23rd Annual COLSA Undergraduate Research Conference
Oral Presentations
Saturday, April 26
7:45 a.m.–2 p.m.
Huddleston Ballroom and Holloway Commons

Patricia Akrivoulis
Biomedical Science

Steven Troy
Biochemistry, Molecular and Cellular Biology
The Effects of Gold and Silica Nanoparticles on Horizontal Gene Transfer in Escherichia Coli
Adviser: Subhash Minocha
23rd Annual COLSA Undergraduate Research Conference

Poster Presentations

**Saturday, April 26**
7:45 a.m.–2 p.m.
Huddleston Ballroom and Holloway Commons

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.

**Behailu Aklilu** *(Graduate Student)*
Genetics

- **Allison Thomas**
  Biochemistry, Molecular and Cellular Biology
  
  *RPA1A and RPA1C Regulate Progression of Meiosis in Arabidopsis thaliana.*
  Adviser: Kevin Culligan

- **Lisa Edwards** *(Graduate Student)*
  Genetics
  
  *RPA1B and RPA1D Genes are Required for Normal DNA Replication and Efficient Progression of Meiosis in Arabidopsis thaliana.*
  Adviser: Kevin Culligan

**Mary Awad**
Biochemistry, Molecular and Cellular Biology

**Karyn Cahill**
Expression and Characterization of Recombinant PDE6C GAF Domain
Adviser: Rick Cote

**Amanda Berger**
Biomedical Science

Effects of keratin filaments on ERK signaling during Fas-induced death of cervical cancer (HeLa) cells
Adviser: David Townson

**Megan Blais**
Biomedical Science

Evaluating the Plasma Free Amino Acid Dose-Response Method to Determine the Content of Metabolizable Methionine in a Rumen-Protected Methionine Supplement
Adviser: Andre Brito

**Jennifer Allen**
Biomedical Science

The Psychological Effects of Chronic Illness in Young Adults
Adviser: Judy Stevens

**Noor Alsalihi**
Lindsay Michaud
Biomedical Science

**Sheri Martin**
Arika Zielfelder
Psychology

*Number Discrimination in the Clark’s Nutcracker (Nucifraga Columbiana).*
Adviser: Brett Gibson

**Samantha Anderson**
Environmental Sciences

*Species Composition at the Sub-Meter Level in Discontinuous Permafrost in Sub-Arctic Sweden.*
Advisers: Michael Palace, Ruth Varner

**Amanda Buks**
Taylor Messina
Jessica Palmer
Nutrition

*Evaluating the Healthfulness of UNH’s Vending Machines.*
Adviser: Jesse Morrell

**Phil Burke**
Evan DaSilva *(Graduate Student)*
Genetics

*The Global Symbiosis Regulator, GacA, Regulates the Nitrogen Assimilation Regulator GlnD and Iron Uptake in Vibrio fischeri.*
Adviser: Cheryl Whistler

**Alexandra Catalano**
Kelly O’Connor
Biomedical Science

**Andre De Barros Duarte Pereira** *(Graduate Student)*
Animal Science

*The Effects of Supplementing a Pasture-based Diet with Ground Flaxseed in Organically-managed Jersey Cows.*
Adviser: Andre Brito

**Alexandra Catalano**
Kelly O’Connor
Biomedical Science

**Andre De Barros Duarte Pereira** *(Graduate Student)*
Animal Science

**Christopher Dorich** *(Graduate Student)*
Earth Sciences

*A Comparison Between the Sulfur Hexafluoride Tracer Technique and the Portable Automated Head Chamber System for Measurement of Enteric Methane Emissions From Mid-Lactation Holstein Cows.*
Adviser: Andre Brito

**Gabrielle Chesney**
Nutrition

*Drug Metabolizing Enzymes in Rat Liver and Their Role in Vitamin D Inactivation.*
Adviser: Gale Carey
Angela Cicia (Graduate Student)  
Biochemistry, Molecular and Cellular Biology

Cayla Compton (McNair Scholar)  
Wildlife and Conservation Biology  
Fecal Steroid Analysis for Monitoring Reproductive Status in Captive Animals  
Adviser: Paul Tsang

Elizabeth Clark  
Equine Studies  
Milk Production of Dairy Cows with Addition of Granulated Cane Sugar  
Adviser: Peter Erickson

Benjamin Claxton  
Biochemistry, Molecular and Cellular Biology  
What Subset of a Clinical Population of Acute Myelogenous Leukemia (AML) Patients Exhibit Cytoplasmic Sequestration of p53 and is Mortalin Involved?  
Adviser: Charles Walker

Michael DeGirolamo  
Biochemistry, Molecular and Cellular Biology  
The Human Platelet Glycome: Structural Analysis Reveals Glycoconjugates Impacting Platelet Storage and Transfusion.  
Advisers: Andy Hanneman, Vernon Reinhold

Joel DeStasio  
Environmental Sciences  
Methane and Carbon Dioxide Production Rates in Lake Sediments From Sub-Arctic Sweden  
Adviser: Ruth Varner

Nicholas Devanney  
Biochemistry, Molecular and Cellular Biology  
Does Withanone Reverse Cytoplasmic Sequestration of p53 and Promote Apoptosis in Acute Myelogenous Leukemia?  
Adviser: Charles Walker

Jennifer Dickson  
Biomedical Science  
What are the Trends in Phenotypic Variation in Harmonia axyridis?  
Adviser: Matthew Macmanes

Marcus Dillon (Graduate Student)  
Genetics

Chelsea Jones  
Biology  
The Distribution of Fitness Effects Varies for Different Replication Errors in Vibrio fischeri  
Adviser: Vaughn Cooper

Marcus Dillon (Graduate Student)  
Genetics

Brian Van Dam  
Biomedical Science  
The Pleiotropic Effects of Beneficial Mutations in Adapted Escherichia coli Populations  
Adviser: Vaughn Cooper

Kelsey Dobe  
Biology  
Migration as a Lifestyle: Effects of Diel Vertical Migration on the Zooplankton Community of Russell Pond  
Advisers: Alan Baker, Jonathan Dufresne, James Haney

Samantha Docos  
Biomedical Science  
Effect of Insulin-Like Growth Factor-1 (IGF-1) on the Expression of NFκB and cFLIP in Bovine Granulosa Cells  
Adviser: David Townson

Gabrielle Dowell  
Biomedical Science  
Ecology, Not Hypermutation, Drives Unpredictable Fluctuations in Experimental Pseudomonas Biofilms  
Adviser: Vaughn Cooper

Kaitlin Dresser  
Nutrition  
Is Protein Supplementation in Male Weight Trainers, Ages 18–24, Associated With Increased Lean Body Mass, Upper Body Strength and Dietary Intake?  
Adviser: Jesse Morrell

Natalie Feldsine  
Marine, Estuarine and Freshwater Biology  
Survey of the Rare Flora of the Tidal Reaches of the Squamscott River and Lamprey River, New Hampshire  
Adviser: Gregg Moore

Claire Fisher  
Neuroscience and Behavior  
MAO-A and the EEG Recognition Memory Signal in Left Parietal Cortex  
Adviser: Robert Ross

Lisa Flaman  
Melissa Ryan  
Megan Thompson (Graduate Student)  
Genetics

Kendall Milkey  
Biomedical Science

Nicole Petersen  
Biochemistry, Molecular and Cellular Biology  
A Screen to Identify Sodium-Induced Root Skewing Mutants in Arabidopsis thaliana  
Adviser: Estelle Hrabak

Andrew Ford  
Environmental Sciences  
Isotopic Analysis of Arctic Ground Squirrel Tissues and Potential Food Sources  
Adviser: Erik Hobbie

Olivia Foy  
Genetics  
Evaluating DNA Extraction From Archaeological Atlantic Cod Bone  
Adviser: Adrienne Kovach

Heather Frechette  
Wildlife and Conservation Biology  
Plastics in Society  
Adviser: Alexander Freid

Amanda Gagnon  
Neuroscience and Behavior  
Effects of Chronic Reboxetine Administration on Intermittent Swim Stress-Induced Ultrasonic Vocalizations and Subsequent Performance on the Forced Swim Test  
Adviser: Robert Drugan
Mackenzie Gavin  
Nutrition  
The Effect of Parent Education Level on Diet Quality  
Adviser: Jesse Morrell

Evan Girard  
Environmental and Resource Economics  
Marginal Effects of Land Tenure on Smallholder Farms in Rural Kenya  
Adviser: John Halstead

Peter Goode  
Wildlife and Conservation Biology  
Do Exotic Shrubs Reduce Caterpillar Abundance in Common Yellowthroat (Geothlypis trichas) Breeding Territories?  
Adviser: Matthew Tarr

Peter Goode  
Wildlife and Conservation Biology  
Do Anadromous Blueback Herring (Alosa aestivalis) and Alewife (Alosa pseudoharengus) Hybridize in a Tank Spawning Environment?  
Advisers: David Berlnsky, Adrienne Kovach, Jennifer Walsh

Madeleine Gould  
Nutrition  
Quality Of Olive Oils Available Locally: Chemical, Sensory And Market Investigations  
Adviser: Joanne Curran-Celentano

Benjamin Grotton  
Biochemistry, Molecular and Cellular Biology  
Detection of Adhesion Molecule Expression in the Bovine Corpus Luteum  
Adviser: David Townsend

Christine Hebert  
Biomedical Science  
Exploring the Importance of Single Nucleotide Polymorphisms of HSPA9 Gene in DNA of Sarcoma Patients  
Adviser: Charles Walker

Judith Hoskin  
Genetics and Nutrition  
Identification of Palmitoyltransferase Mutants in Arabidopsis thaliana  
Adviser: Estelle Hrabak

Brian Hurley  
Biology  
Katie Lantz (Graduate Student)  
Human α-Galactosidase-A production in Transgenic Arabidopsis thaliana  
Adviser: Subhash Minocha

Sheldon Hurst IV (Graduate Student)  
Kristen Pitkanen  
Genetics  
Exploring Novel Genetic Tools for Geodermatophilaceae  
Adviser: Louis Tisa

Saba Ilyas  
Avery Normandin  
Biomedical Science  
Feng Xu (Graduate Student)  
Genetics  
The Presence of Hemolysin Genes, but Not Necessarily Hemolytic Activity, Correlates With Virulence Potential in Clinical Isolates of the Emerging Environmental Pathogen Vibrio parahaemolyticus  
Adviser: Cheryl Whistler

Emily Johnson  
Wildlife and Conservation Biology  
Does a Reduction in Caterpillar Abundance Caused by the Exotic Shrub Frangula alnus Reduce Plasma Carotenoids in Nestling Common Yellowthroats (Geothlypis trichas)?  
Adviser: Matthew Tarr

Sarah Kinsman  
Animal Science  
Nicolette Schwab  
Biomedical Science  
Factors Influencing Programmed Cell Death (apoptosis) of Human Ovarian Granulosa Tumor Cells  
Adviser: David Townsend

David Kortjohn  
Environmental Sciences  
Soil Food Web Community Response to Maize Treated With Pesticide Seed Treatments  
Advisers: Lesley Atwood, Richard Smith

James Lydecker  
Plant Biology  
Assessment of Conservation Requirements and Concerns for Rare New Hampshire Grass Taxa With Emphasis on the Genus Glyceria (Poaceae)  
Adviser: Janet Sullivan

Conor Madison  
Environmental Sciences  
Drought Sensitivity of Slash Pine and Longleaf Pine Deduced by Tree Ring Analysis  
Adviser: Heidi Asbjornsen

Conor Madison  
Environmental Sciences  
Effects of Road Construction on Nearby Trees  
Adviser: Barrett Rock

Timothy Marquis  
Biomedical Science  
Distribution and Expression of Glycoprotein Hormone Subunits, GpA2, GTHΒ, and GpB5, in the Sea Lamprey, Petromyzon marinus  
Adviser: Stacia Sower

Kadina Mazic  
Biochemistry, Molecular and Cellular Biology  
The Use of First Principle Analytical Techniques in Order to Determine the Effect of pH on the Colloidal Properties of Monoclonal Antibodies.  
Advisers: Dana Filoti, Thomas Laue, Carrie May

Emily McDermott  
Zoology  
The Influence of Landscape and Habitat Factors on the Sex Ratio of the New England Cottontail  
Adviser: Adrienne Kovach

Gabrielle Mele  
Nutrition  
Metabolic Syndrome and Whole Grain Intake in UNH Men and Women  
Adviser: Joanne Curran-Celentano
David Morejon  
Biomedical Science  
Fitness Associated With Adaptation to a Novel Environment  
Adviser: Vaughn Cooper

Matthew Morris  
Sustainable Agriculture and Food Systems  
Do Pesticide Seed Treatments Exacerbate Weed Problems?  
Advisers: Richard Smith

Alexander Nardone  
Biology  
Treatment with Mortalin-targeted Agents Will Promote Nuclear Translocation of p53 and Apoptosis of KG-1 Acute Myelogenous Leukemia Cancer Cells  
Adviser: Charles Walker

Katherine Norwood  
Biochemistry, Molecular and Cellular Biology  
Investigations Into ALDEFLUOR as a Novel Method for Identifying Leukemia in Soft-Shell Clams  
Adviser: Charles Walker

Chijioke Okereke  
Nutrition  
Diabetic Conditions and Atherogenic Cellular Events In Vitro  
Adviser: Thomas Foxall

Stephanie Parisi (McNair Scholar)  
Biomedical Science  
Examining the Tumorgenic Ability of Cytokeratin 8/18 Filaments in Cervical Cancer Cells In Vitro  
Advisers: Thomas Foxall, David Townson

Audrey Petteruti  
Biomedical Science  
Do Flame Retardants Promote Vitamin D Deficiency?  
Adviser: Gale Carey

Allison Pike  
Biomedical Science  
Evaluating Colostrum Quality with Niacin Supplementation in the Diet of Dairy Cattle  
Adviser: Peter Erickson

Nicholas Pizzi  
Zoology  
The Effects of Phosphodiesterase (PDE) Inhibitors on Chemotaxis Along a Salt Gradient in C. elegans  
Advisers: Rick Cote, Kevin Schuster

Katherine Rafuse  
Marine, Estuarine and Freshwater Biology  
The Effects of Diet on the Growth and Survival of Juvenile Channeled Whelks (Busycotypus canaliculatus)  
Adviser: Elizabeth Fairchild

Daren Robinson  
Biochemistry, Molecular and Cellular Biology  
Role of the Molecular Motor Dynein in Translocation of p53 Protein to the Nucleus in the IMR-32 Neuroblastoma Cell Line  
Adviser: Charles Walker

Rachel Ross  
Biomedical Science  
The Effect of Riders With Disabilities on Equine Mean Heart Rate in the Therapeutic Setting  
Adviser: Elizabeth Boulton

Victoria Sicard  
Biomedical Science  
Modeling Virulence of V.parahaemolyticus in Arabidopsis thaliana.  
Adviser: Cheryl Whistler

Lee Sutcliffe  
Environmental Conservation Studies  
Insights From Project FeederWatch: Changes in the Abundance and Occurrence of Birds in New Hampshire Over the Past 24 Years  
Adviser: Rebecca Rowe

Katherine Swan  
Environmental Sciences  
Investigation of Nitrogen Loading in the Great Bay Estuary: Is Moore Fields Contributing to the Nitrogen Loading in the Oyster River?  
Adviser: William McDowell

Stephanie Sykes  
Marine, Estuarine and Freshwater Biology  
Evaluating Attractiveness of Bait in the American Lobster (Homarus americanus)  
Adviser: Winsor Watson

Kathryn Thomson  
Environmental Sciences  
What Does an Oil-spill from the Montreal to Portland Pipeline Mean for Water Quality in New England’s Rivers?  
Adviser: Cameron Wake

Sarah Tierney  
Environmental Conservation Studies  
Kingswood Lakes Management Plan: Brookfield, NH  
Advisers: Alan Baker, James Haney

Brienna Tomlinson  
Biomedical Science  
Prevalence of Intestinal Parasites in Dogs Transported to NHSPCA  
Advisers: Michelle Fleetwood, Sarah Proctor

Sundersh Tumber-Davila (McNair Scholar)  
Environmental Conservation Studies  
Quantifying Carbon Allocation to Mycorrhizal Fungi by Temperate Forest Tree Species Across a Nitrogen Availability Gradient  
Adviser: Andrew Ouimette

Caroline Ward  
Biomedical Science  
Investigating the Interactions Between Cyanobacteria and Vibrio parahaemolyticus  
Advisers: Vaughn Cooper, Cheryl Whistler

Samantha Werner  
Environmental Sciences  
Increase in Sedge Biomass Across a Permafrost Thaw Gradient Correlates to Changes in the Magnitude and Isotopic Composition of Methane Emissions  
Adviser: Ruth Varner

Molly Williams  
Neuroscience and Behavior  
Drug Reactivity  
Adviser: Robert Drugan
Danielle Zamarchi
Sustainable Agriculture and Food Systems
Where’s the Beef?: A Study on the Availability, Production, and Consumption of Locally Produced Beef in Rockingham and Strafford Counties of New Hampshire, and York County of Maine
Advisers: Benjamin Brown, Joanne Curran-Celentano

Chemistry Department Poster Exhibition

Friday, May 2
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.

Odin Achorn
Chemistry
Radically-Exchangeable Alkoxyamines as Heat-Responsive Crosslinkers for Polymeric Nanostructures and Nanocomposites
Adviser: Erik Berda

Lindsey Daniels
Chemistry
Formation of Amino Acid-derived Cyclopropanols
Adviser: Charles Zercher

Daniel Darcy
Chemistry
Molecular Dynamic Study of Coarse-Grained Heteropolymer Folding
Advisers: Erik Berda, Howard Mayne

Adam Dyer
Chemistry
Synthesis of a Novel Self-Assembling, Hyperbranched, Dendrimer Polymer via RAFT Polymerization Capable of Temperature Controlled Fe(II) Complexation
Adviser: W. Rudolf Seitz

Meaghan Elrick
Chemistry
Refractive Indices of Atmospheric Aerosols
Adviser: Margaret Greenslade

Edward Everett
Chemistry
Self-Healing Polymers
Adviser: Richard Johnson

Tyler Goff
Chemistry
Coal Processing Chemical Contaminates West Virginia Water Supply
Adviser: Richard Johnson

Eric Guinto
Chemistry
Investigation of Hydrogen Bonding in Metal Centers
Adviser: Samuel Pazicni

Rose Hadley
Chemistry and Neuroscience and Behavior
Evaluation of the Effect of Divalent Cations on Phosphodiesterase Activity
Adviser: Roy Planalp

Charles Hill
Chemistry and Biology
B-Proline Formation via Tandem Homologation-Mannich Reactions
Adviser: Charles Zercher

Alexis Kasparian
Chemistry
Exploration Into the Synthesis and Analysis of a Novel Sensor for Biological Metal Ions
Adviser: Roy Planalp

Brian Kispert
Chemistry
Synthesis of Novel Cyclic and Bis-Bicyclic Polyamine Ligands for Biomedical and Catalysis Studies
Advisers: Gary Weisman, Edward Wong

Adam Knedeisen
Chemistry
Imaginary Refractive Indexes of Common Secondary Organic Aerosol Components
Adviser: Margaret Greenslade

Alexandra Mackinnon
Chemistry
Synthesis and Cationic Rearrangements of Polynaphthyls
Adviser: Richard Johnson

Tyler Mendenhall
Chemistry
Medical Spectroscopy
Adviser: Roy Planalp

Justin O’Brien
Chemistry
Progress Toward a Polymer-Bound Diiron Cluster to Model [FeFe]-Hydrogenase
Adviser: Samuel Pazicni

Sebastian Pantovich
Chemistry
Photocatalytic Reduction of Carbon Dioxide Using Semiconductor Nanoparticles
Adviser: Gonghu Li

Hannah Paroline
Chemistry
Progress Towards the Synthesis of 4,5-Benzoxepin: Investigation of Mechanism for Formation of Ring-Opened Metabolites of Cytochrome P450
Adviser: Arthur Greenberg

Kirstin Rickarby
Chemistry
New Chemistry of Arenium Ions: Synthesis & Rearrangements
Adviser: Richard Johnson
Peter T. Paul College of Business and Economics
Paul J. Holloway Innovation-to-Market Prize Competition

Championship Round

Wednesday, May 7
12:30 p.m.–6 p.m.
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.
Acknowledgments

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 2014 happen.

Special thanks to:

UNH Parents Association
Office of the Vice President for Student and Academic Services
Office of the Senior Vice Provost for Engagement and Academic Outreach
All Faculty Mentors
Center for International Education
College of Engineering and Physical Sciences (CEPS) Advisory Board
College of Engineering and Physical Sciences Alumni Association
College of Engineering and Physical Sciences (CEPS) Dean’s Office
College of Life Sciences and Agriculture
Department of Chemical Engineering
Department of Civil Engineering
Hamel Center for Undergraduate Research
Institute for the Study of Earth, Oceans, and Space
Memorial Union Building Administrative Staff
New Hampshire NASA Experimental Program to Stimulate Competitive Research (EPSCoR)
New Hampshire Space Grant Consortium
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The University Honors Program
The University Writing Programs
UNH Advancement
UNH Dining Services
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UNH InterOperability Laboratory
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UNH Transportation Services
UNH Video Services
URC Program Assistants Rebecca Howard ’14, Kate Kunin ’16 and part-time employee Lisa Ciccotelli, M.Ed.
Web Solutions

Thanks to the 2014 URC Planning Committee (and all the many individuals who served on numerous subcommittees)

Eleanor Abrams, Executive Director of Engagement and Faculty Development and Professor, Department of Education
Martha Barker, Art Director, Editorial & Creative Services
Carole Berry, Co-chair, ISE Symposium, Administrative Manager II, CEPS Dean’s Office
Jennifer Borda, Associate Professor, Communication
Janet Cass, Co-chair, Parents Association Undergraduate Research Symposium, Director, Parents Association
Kathy Cataneo, Director, Research Development, Office of the Senior Vice Provost for Research
Kent Chamberlin, Co-chair, ISE Symposium, Professor, Electrical and Computer Engineering
Summer Cook, Assistant Professor, Kinesiology
Lynne Cooper, Chair, URC Planning Committee, Engagement and Academic Outreach
Jay Derick, Graduate Assistant/Coordinator, Graduate Research Conference
Molly Doyle, Administrative Director, Hamel Center for Undergraduate Research
Rob Haskins, Chair, Naked Arts, Associate Professor, Music Department
John Hasseldine, Chair, Paul College URC, Associate Professor, Accounting
Tara Hicks Johnson, Co-chair, ISE Symposium, Outreach Specialist, CCOM
Laura Hill, Administrative Coordinator, Paul College URC, Educational Program Coordinator, Paul College
Stacy Hokinson, Administrative Coordinator, Paul College URC, Administrative Assistant III, Paul College
Jake Kenyon, Graduate Assistant, Co-coordinator, Graduate Research Conference
Ginger Lever, Director of Community Relations and Events, UNH Manchester
Robert McGann, Director, UNH Admissions
Michael Merenda, Chair, PAUL Holloway Competition, Professor and Chairperson, Management
Subhash Minocha, Chair, COLSA URC, Professor, Biological Sciences
Cari Moorhead, Chair, Graduate Research Conference, Associate Dean, Graduate School

Dan Reagan, Associate Dean for Academic Affairs, UNH Manchester, Chair, UNH Manchester URC
Jim Ryan, Co-chair, ISE Symposium, Professor, Space Science Center
Pam Smith, Director, Donor Relations, UNH Advancement
Molly Tetreault, Director, Connors Writing Center, Adjunct Faculty, English Department
Sandhya Shetty, Associate Professor, English Department
Julie Williams, Senior Vice Provost, Engagement and Academic Outreach

2014 URC Event Chairs/Co-chairs:

Mike Annicchiario, Student Composers’ Concert
Tim Barreto and Kate Hanson, Thompson School, Community Leadership Program
Carole Berry, Kent Chamberlin, Tara Hicks Johnson, and Jim Ryan, Interdisciplinary Science & Engineering Symposium
Jen Borda and Janet Cass, Parents Association Undergraduate Research Symposium
Jay Derick, Jake Kenyon and Cari Moorhead, Graduate Research Conference
Val Dusek and Robert Scharf, Philosophy Department Undergraduate Research Conference
Marianne Fortescue, UNH Office of Community Service & Learning
Rob Haskins, Naked Arts—Creativity Exposed!
John Hasseldine, Laura Hill and Stacy Hokinson, Paul College Undergraduate Research Conference
Delia Konzett, Honors English Undergraduate Research Conference
Jessica Lepler, History Department Undergraduate Research Conference
Ginger Lever and Dan Reagan, UNHM Undergraduate Research Conference—Oral, Poster, Cinema Day, Technology Day
Mike Merenda and Cynthia Nizzari-McClain, Paul College Holloway Prize University-wide Innovation-to-Market Poster Session and Championship Round Competition
Subhash Minocha, 23rd Annual COLSA URC
Susan Moore and David Pillemer, Psychology Department George M. Haslerud URC
Cindi Rohwer, Chemistry Department Poster Exhibition
Carrie Smart and Ruth Wharton-McDonald, Seacoast Reads Exhibition
Neil Vroman, CHHS Grimes Award Competition
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