“For me, the URC is about learning how to think on your feet, maintain confidence in what you know, and transmit your knowledge effectively to others.”

“I found it a challenging and positive experience to be pushed beyond my normal comfort zone.”

“I felt very empowered and proud of my accomplishments.”
Welcome to our eleventh annual springtime celebration of research and discovery at the University of New Hampshire. The UNH Undergraduate Research Conference (URC) highlights the outstanding research, scholarship, and creative activities of our students and their faculty mentors. We take pride in—and learn from—their accomplishments.

What began as a University-wide effort in the spring of 2000 has blossomed into an annual tradition that puts UNH students in the spotlight. Our conference is now one of the largest and most diverse in the nation. More than 900 students will present their findings at over twenty events across both the Durham and Manchester campuses, and represent academic achievements in every college and school.

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

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

Sincerely,

Mark W. Huddleston, President

John D. Aber, Provost
**URC 2010 Contents**

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*All events are free and open to the public.*

*Accessibility accommodation requests may be directed to Lynne Cooper at (603) 862-1997*
URC 2010 Calendar

All events are free and open to the public.

Monday and Tuesday, April 12–13

Monday, 5–7 p.m.
Graduate Research Conference (GRC)
Huddleston Ballroom

Tuesday, 10 a.m.–4 p.m.
Graduate Research Conference (GRC)
MUB 2

Friday, April 16

6–8 p.m.
2010 Senior B.A. & B.F.A. Exhibition and M.F.A. Thesis Exhibition and Preview Reception
Museum of Art, Paul Creative Arts Center
(Exhibition runs April 17–May 21, 2010) 1

Tuesday, April 20

9 a.m.–3 p.m.
UNH Manchester Undergraduate Research Conference
Oral Presentations
UNHM Auditorium

Wednesday, April 21

9 a.m.–6 p.m.
Whittemore School of Business and Economics Undergraduate Research Conference
MUB 2

10:30 a.m.–Noon
Seacoast Reads Exhibition
MUB, Rooms 330/332 2

10:30 a.m.–Noon
Thompson School Community Leadership Program
MUB, Rooms 330/332 2

10:30 a.m.–Noon
UNH Office of Community Service Student Partnerships
MUB, Rooms 330/332 2

Noon–2 p.m.
The Naked Arts—Creativity Exposed! (Act I)
Museum of Art, Paul Creative Arts Center 1

2–5 p.m.
Interdisciplinary Science and Engineering (ISE) Symposium
Kingsbury Hall 3 and Morse Hall 4

4–6 p.m.
UNH Manchester Undergraduate Research Conference
Poster Presentations
UNHM Auditorium

Thursday, April 22

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

12:30–2 p.m.
The Naked Arts—Creativity Exposed! (Act II)
Museum of Art, Paul Creative Arts Center 1

12:40–2 p.m.
History Department Undergraduate Presentations
MUB, Rooms 336/338 2

Friday, April 23

8:30 a.m.–3 p.m.
UNH Manchester Undergraduate Research Conference
Engineering Technology Senior Project Presentations
UNHM Auditorium

9–9:30 a.m.
Parents Association Breakfast with Provost John Aber and UNH Parents Association Council President-elect Peter Hayden
MUB, Granite State Room 2

9:30 a.m.–3 p.m.
Parents Association Undergraduate Research Symposium
MUB, Granite State Room, assigned rooms

12:15–1 p.m.
The Naked Arts—Creativity Exposed! (Act III)
MUB, Strafford Room 2

1–4 p.m.
College of Health and Human Services Grimes Award Competition
Pettee Hall, Room G10 6

1–4 p.m.
Psychology Department George M. Haslerud Undergraduate Research Conference
Murdland Hall, Room 115 10

1–5 p.m.
Honors English Undergraduate Research Conference
Hamilton Smith Hall, English Department 5

4–8:30 p.m.
Philosophy Department Undergraduate Research Conference
Murdland Hall, Room G17 10

8:00 p.m.
Student Composers’ Concert
Bratton Recital Hall, Paul Creative Arts Center 1

Saturday, April 24

7:45 a.m.–2 p.m.
19th Annual College of Life Sciences and Agriculture (COLSA) URC
The New England Center 7

Friday, May 7

3–4:30 p.m.
Chemistry Department Poster Exhibition
Parsons Hall, Iddles Wing 9

Wednesday, May 12

1–6 p.m.
Whittemore School of Business and Economics Paul J. Holloway Prize Championship Round
Holloway Commons 8
Campus Map

BUILDING KEY
1. Paul Creative Arts Center
2. Memorial Union Building (MUB)
3. Kingsbury Hall
4. Morse Hall
5. Hamilton Smith Hall
6. Pettee Hall
7. New England Center
8. Holloway Commons
9. Parsons Hall
10. Murkland Hall

UNH Manchester
400 Commercial Street
Manchester, N.H.
For directions to UNH Manchester go to
www.unhm.unh.edu/directions.html
or call (603) 641-4321.
**Graduate Research Conference (GRC)**

**Oral and Poster Presentations**

April 12 and 13  
Monday, 5–7 p.m.  
Huddleston Ballroom  
Tuesday, 10 a.m.–4 p.m.  
Memorial Union Building

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

**2010 Senior B.A. & B.F.A. Exhibition and M.F.A. Thesis Exhibition Preview Reception**

**Friday, April 16**  
6–8 p.m.  
Museum of Art, Paul Creative Arts Center

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

**Bachelor of Fine Art degree candidates:**  
Cara Cabral, painting  
Grace Cunniff, painting  
Finnian Donovan, woodworking  
Maggie Green, painting  
Julie Hamel, photography  
Michael Mackail, painting  
Alyssa Ribitzki, painting

**Bachelor of Art degree candidates from the UNH Art and Art History Department, whose work will also be on view:**  
Megan Breen, photography  
E.A. Cole, painting  
Andrew Fox, drawing  
Karrah Kwasnik, photography  
Chelsea Ricciardi, photography  
Jennifer Smith, drawing  
Samantha Withers, printmaking

**UNH Manchester Undergraduate Research Conference**

**Oral Presentations**

Tuesday, April 20  
9 a.m.–3 p.m.  
UNHM Auditorium

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

**Joshua Albair** (UNH McNair Scholar)  
Linguistics and Computer Information Systems  
*What is the State of Evaluative Affixes in Contemporary English?*  
Adviser: Rochelle Lieber

**Nicole Amichetti**  
Psychology  
*The Representation of the Case of H.M. in Introductory Psychology Textbooks*  
Adviser: Kenneth Bell

**Christine Beehler**  
Communication Arts  
*Volunteers: What Attracts and What Retains Them?*  
Adviser: Barbara Jago

**Michael Cochran-Boucher**  
Biological Sciences  
*Obesity and Pregnancy: 800 Chart Review, Based on the Presence or Absence of Four Specific Morbidity Descriptions*  
Adviser: Patricia Halpin

**Natalie Glisson**  
Humanities and English  
Adviser: Terry Savage

**Marc Langlois**  
Communication Arts  
*One Act Play*  
Adviser: Dana Myskowski
Selena Lucent
Politics and Society and History
Stopping the Killing: The International Criminal Court and Juridical Determination of the Responsibility to Protect
Adviser: Michael Contarino

Emilia Raymond
Communication Arts
Us versus Them: An Exploration of the Conflict Between Homeschooling and Public Education
Adviser: Virginia Lever

John Reale
Business
The Double Oral Auction: Markets and Power
Adviser: Thomas Birch

Richard Tyson
History
Manchester’s Ten-hour Day Movement
Adviser: Robert Macieski

Whittemore School of Business and Economics Undergraduate Research Conference

Wednesday, April 21
9 a.m.–6 p.m.
Memorial Union Building

The Whittemore School of Business and Economics welcomes its undergraduate students to participate in an exciting research opportunity. Through original research and valuable guidance from mentors, students are able to gain deeper academic knowledge as well as professional experience. The WSBE program knows that its students strive for success, so join us in expanding our minds at this rewarding event. The URC includes a presentation of posters, oral presentations, and feedback from University and business leaders.

Selena Lucent ’10
UNH Manchester, Politics and Society

Selena Lucent’s research looks at human rights on an international scale. She recently co-authored a paper with Professor Michael Contarino on an emerging global norm called the “Responsibility to Protect.”

The concept is philosophically similar to The Rome Statute, which was the basis for creating the International Criminal Court.

Lucent and Contarino make the case that, with minor adjustments, the court could determine when a responsibility-to-protect violation is taking place. Lucent hopes such rulings would facilitate a more effective and less politicized response to international human rights violations. She intends to pursue a doctorate in political philosophy.

MUB, Room 338/340 (9–11 a.m.)
Economics Oral Presentations
Moderator: Aziz Saglam
Siddharth Prabhakar
International and Development Economics and Financial and Managerial Economics
Are There Benefits to Commercializing Microfinance? A Case Study Between SKS Microfinance and PRADAN
Adviser: Michael Swack

Betsy Weingart
Economics
The Economic Cost and Benefit of Universities Going Green
Adviser: Aziz Saglam

Benjamin Woodhouse
Economics
The Effect Income Has on Demand for Imports
Adviser: Aziz Saglam
MUB, Rooms 338/340
(11 a.m.–1 p.m.)

Multidisciplinary Oral Presentations
Moderator: Charles Martin

Joseph Annese
Michelle Berman
Greggory Bowen
Nicholas Capano
Alan Chenard
Jocelyn Collins
Emily Coppin
Danielle DeCourcey
Johanna Deris
Eric Desjardins
Ashley Flewelling
Chelsey Fraser
Erin Gallagher
Nicole Kenney
Ashley Long
Christine Macoul
Bryan McManus
Stuart Mumley
Whitney Pillsbury
Jonna Pothier
Elisha Randall
Kelsey Ruediger
Danielle Russo
Joseph Shortzer
Stacy Simione
Hannah Slavin
Benjamin Stephenson
Deanna Strickland
Danielle Taylor
Amanda Trivella
Rachel Wudarczyk
Marketing
Measuring and Analyzing Social Networking Usage and Grades Among College Students
Adviser: Charles Martin

Charles Bono
Tracy Cable
Matthew Casey
John DeWispelaere
Travis Elfrindh
Kora Forlizzi
Sarah Fournier
Grant Gibree
Katherine Glennon
Laura Greichen
Sabrina Hashmi
Patrick Higgins
Megan Honey
Kevin Lewis
Kevin MacKenzie
Kathryn Meikle
Caitlin Moloney
Tara Monroe
Katlyn Monteiro
Timothy Mueller
Alexandra Neuman
Lauren Quinn
Elizabeth Renfer
Peter Scanlon
Caitlin Shea
Matt Thompson
Vanessa Wensnak
Robert Wilson
Matthew Woods
Marketing
Measuring and Analyzing Social Networking Usage and Sleep Among College Students
Adviser: Charles Martin

Megan Brunelle
Management
Saturday Afternoon Football:
A Student-Centered Marketing Program
Adviser: Audrey Ashton-Savage

Kasey Child
Entrepreneurial Venture Creation
Creative Destruction: Using Business to Reduce Taxpayer Burden
Adviser: Thomas Towle

Tracy Howell
Accounting
The Future of Auditing: Liability of the Auditor
Adviser: Jacob Rose

Molly North
Finance
Chief Executive Officer Education: Does it Make a Difference?
Adviser: Brian Bolton

Samantha Pye
Marketing
The DePuy Spine Medical Education Journey: Enhancing the Medical and Professional Education of Surgeons
Adviser: William Machanic

MUB, Room 334/336 (9–11 a.m.)

Multidisciplinary Poster Presentations
Moderator: Audrey Ashton-Savage

Jean Adams
Amanda Brody
Sabrina Hashmi
Bridget Robinson
Kelsey Ruediger
Devan Weed
Marketing
Sarah Morse
Marketing and Management
ChildVoice International: Consumer Buyer Behavior Project
Adviser: Melissa Bishop

Greggory Bowen
Eric Desjardins
Ashley Luszey
Caitlin Moloney
Deanna Strickland
Marketing
A Brighter Future for Mechanics: The Clip Light
Adviser: Ludwig Bstieler

Kathryn Early
Christine Meyer
Jenna Rogoff
Hospitality Management
Wine Distribution Throughout New Hampshire
Adviser: Udo Schlentrich
Students are organized into teams and work for an entire semester on a marketing problem given them by an outside company or organization. These real-world situations require extensive field research and data analysis, and research findings are then used to design and implement marketing programs to solve the client problem.

Moderator: Peter Masucci

Development of a Marketing Campaign for the General Motor's College Discount Program—Team 1

Erin Badger
Charles Bono
Brenna Tenore
Jenna Vadala
Marketing
Adviser: Peter Masucci

Development of a Marketing Campaign for the General Motor's College Discount Program—Team 2

Timothy Brannelly
Casey Cardinal
Allyson Gibbs
Stacey Preston
Peter Stanieich
Marketing
Adviser: Peter Masucci

Development of a Marketing Campaign for the General Motor's College Discount Program—Team 3

Kathleen Burns
Lindsey Giovinelli
Fern Strasser
Courtney Sweeney
Anthony Terlizzi
Marketing
Adviser: Peter Masucci

Development of a Marketing Campaign for the General Motor's College Discount Program—Team 4

Michaela DeRoche
Jonathan Hinds
Zachary Lash
Jonna Pothier
Kathryn Schmidt
Marketing
Adviser: Peter Masucci

Development of a Marketing Campaign for the General Motor's College Discount Program—Team 5

Kora Forlizzi
Gregory Halama
Tara Monroe
Matthew Woods
Marketing
Adviser: Peter Masucci

Marketing Sustainable Transportation Alternatives on the UNH Durham Campus—Amtrak Team

Jenna Cardarelli
Danielle DeCourcy
Eric Desjardins
Emily Girard
Brendon Sprinkle
Amanda Trivella
Marketing
Adviser: Peter Masucci

Marketing Sustainable Transportation Alternatives on the UNH Durham Campus—C&J Bus Lines Team

Johanna Deris
Nicole Kenney
Kevin MacKenzie
Lauren Quinn
Joseph Shartzer
Vanessa Wesnak
Marketing
Adviser: Peter Masucci
Marketing Sustainable Transportation Alternatives on the UNH Durham Campus—Wildcat Transit Team
Ariane Harter
Ryan Mill
Alexandra Neuman
Cara Sandberg
Kayla Vigneault
Steven Zimmerman
Marketing
Adviser: Peter Masucci

Marketing Sustainable Transportation Alternatives on the UNH Durham Campus—Zipcar Team
Grant Gibree
Kristin Kendall
Corey Marceau
Bryan McManus
Danielle Neuffer
Danielle Taylor
Marketing
Adviser: Peter Masucci

Marketing the Gundalow Company Throughout the Piscataqua Maritime Region
Anthony Azarian
Bryan Bartlett
Christopher Croteau
Jessica Dusenberry
Nicholas Filias
Lauren Gordon
Mark Lanciani
Kellen Millard
Paige Pendleton
Whitney Pillsbury
Ashley Seely
Robert Wilson
Marketing
Adviser: Peter Masucci

Marketing WSBE Summer School Courses
Aliza Aylward
Domenic Botticelli
Tracy Cable
Nicholas Capano
Matthew Casey
Spencer Cecchini
Ashley Flewelling
Stuart Mumley
Elisha Randall
Kelsey Ruediger
Marketing
Adviser: Peter Masucci

Marketing the Launch of the Stay Work Play NH Website
Joseph Annese
Carling Belden
Michelle Berman
Alan Chenard
Emily Coppin
Garrett Cypher
Justine Goulart
Patrick Higgins
Ashley Long
Patrick Poulin
Rachel Wudarczyk
Marketing
Adviser: Peter Masucci

Town of Kittery, Maine—Marketing of Shopper Tram System at the Kittery Outlet Malls
Allison Bickford
Greggory Bowen
Travis Elfreth
Chelsey Fraser
Caitlin Moloney
Jaclyn Moran
Samantha Pye
Christina Rolli
Marketing
Adviser: Peter Masucci

Town of Kittery, Maine—Marketing of a Water Taxi Service Between the Kittery Outlet Malls, Pepperrell Cove, and Portsmouth, New Hampshire
Jocelyn Collins
Victoria Gellatly
Megan Honey
Daniel Lundquist
Stephanie Mitchell
Katlyn Monteiro
Timothy Mueller
Elizabeth Renfer
Caitlin Shea
Marketing
Adviser: Peter Masucci

Town of Kittery, Maine—Marketing of Pepperrell Cove to Recreational Boaters
Ashley Luszey
Christine Macoul
Kathryn Meikle
Georgia Ricci
Danielle Russo
Peter Scanlon
Nina Shaw
Deanna Strickland
Marketing
Adviser: Peter Masucci

MUB, Rooms 338/340 (1–3 p.m.)

Atkins Investment Group

Students research and analyze current economic developments, industry sectors and specific company stock performance to manage a portfolio known as the Wildcat Investment Fund. The fund uses real dollars to buy and sell investments.

Moderators: Stephen Ciccone and Ahmad Etebari

Alexander Cugini
Kristina Fish
Kirsten Fournier
Jeffrey Lowell
Taylor MacKay
Jessica Morse
Jennifer Tripp
Accounting
MUB, Rooms 330/332 (3–5 p.m.)

**Paul J. Holloway Prize**
**University-wide Innovation-to-Market Poster Presentations**

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.

**Moderator:** Michael Merenda

**Jay Agarwal**  
Chemistry  
*Versa*  
Adviser: Thomas Towle

**Timothy Allison** *graduate student*  
Business Administration  
*Luna Organics*  
Adviser: Juan Florin

**David Arrigg**  
Marketing

**Andrew Welenc**  
Management and Information Systems  
*Kalo Klocks*  
Adviser: Goksel Yalcinkaya

**Iulia Barbu** *graduate student*  
Civil Engineering

**Keith Teeter** *graduate student*  
Business Administration  
*Living Waters Inc.*  
Adviser: Juan Florin

**Mark Bedard**  
Management and Entrepreneurial Venture Creation  
*Hocopoco*  
Adviser: M. Billur Akdeniz

**Michelle Berman**  
Marketing and Entrepreneurial Venture Creation

**Matthew Casey**  
Entrepreneurial Venture Creation

**Joe Cheslock** *UNH McNair Scholar*  
Entrepreneurial Venture Creation

**Andrew Pieroni**  
Civil Engineering  
*Carbo-Cat*  
Adviser: Jeffrey Sohl

**Tatyana Bespalova** *special student status*  
Business Administration  
*Star Ip TV*  
Adviser: Jing Wang

**James Browne** *graduate student*  
Civil Engineering  
*MagHammer*  
Adviser: Charles Goodspeed

**Ming Cao** *graduate student*  
Materials Science

**John Driscoll** *graduate student*  
Economics

**Matthew Smith** *graduate student*  
Business Administration  
*Starching*  
Adviser: Juan Florin

**Samantha Eaton**  
Entrepreneurial Venture Creation

**Alexander Waitner**  
Entrepreneurial Venture Creation

**Marcel Kozlowski**  
Civil Engineering

**Kent Walker**  
Civil Engineering  
*Earthly Solutions*  
Advisers: Kevin Gardner and Jeffrey Sohl
Seacoast Reads Exhibition

Wednesday, April 21
10:30 a.m.–Noon
Memorial Union Building,
Rooms 330/332

The Seacoast Reads exhibition displays the work of UNH student volunteers who tutor young children in elementary schools and after-school programs in literacy. Since 1998 over 1,000 UNH students have worked through Seacoast Reads to tutor a like number of children. Sponsored by the Graduate Program in Reading and housed in the Department of Education, Seacoast Reads draws students from across the University and represents one of the largest service and outreach organizations on campus.

Remembering Grant Cioffi

Grant Cioffi, who passed away in March 2010, was one of the co-founders of Seacoast Reads. His dedication to improving the literacy lives of children extended far beyond his own community, as evidenced by his work with schools and teachers across the state as well as the work he did for many years as part of Boston’s Learning Disabilities Program at Children’s Hospital.

Grant’s vast knowledge of how literacy is developed in children and adolescents was widely known, but those who knew Grant personally were equally struck by his gentle nature, his humility, and his compassion for others. As an associate professor of education at UNH, Grant touched the lives of everyone he taught. It is with great sadness that we say farewell to an enormously inspirational teacher, mentor, and friend.
Thompson School
Community Leadership Program

Capstone and Research Projects

Wednesday, April 21
10:30 a.m.–Noon
Memorial Union Building, Rooms 330/332

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

Danielle Huntress
Community Leadership
Clothing for Children
Adviser: Timothy Barretto

Richard Kennedy
Community Leadership
For Haiti Support Effort
Adviser: Timothy Barretto

Corey McGuigan
Community Leadership
Dodge for Wishes
Adviser: Timothy Barretto

Kristen Mosher
Community Leadership
Pay It Forward
Adviser: Timothy Barretto

Catherine Plante
Community Leadership
Cornucopia Community Garden
Adviser: Timothy Barretto

Charles L. Smith
Community Leadership
Howling Monkey Coffee Farms Cooperative
Adviser: Timothy Barretto

Haiti Relief
Ashley Flewelling
Marketing
Ashley Nelson
Communication
Save the Children
Adviser: Kate Hanson

Ashley Greene
Courtney King
Applied Business Management
Yele Haiti
Adviser: Kate Hanson

Blair Heinrich
Community Leadership
World Concern
Adviser: Kate Hanson

Christine Jacques
Community Leadership
Mercy Corps
Adviser: Kate Hanson

Ernst Ketel
Community Leadership
Partners In Health
Adviser: Kate Hanson

Aaron Klauber
Community Leadership
Doctors Without Borders/Médecins Sans Frontières
Adviser: Kate Hanson

Tegan LaBarre
Community Leadership
Meds and Food for Kids
Adviser: Kate Hanson

Andrew Levey
Community Leadership
American Red Cross
Adviser: Kate Hanson

Laura Lonabaugh
Animal Sciences: Equine Sciences
Oxfam
Adviser: Kate Hanson

UNH Office of Community Service Partnerships

Wednesday, April 21
10:30 a.m.–Noon
Memorial Union Building, Rooms 330/332

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.

Information on participants will be available at the event.
The Naked Arts—Creativity Exposed!

Act I

Wednesday, April 21
Noon–2 p.m.
Museum of Art,
Paul Creative Arts Center

This event exposes the inner creative process of artists working in various concentrations. Student presenters will describe the work they undertake to bring an artistic creation from initial inspiration to the gallery.

Cara Cabral
Fine Arts
*Untitled*
Adviser: Jennifer Moses

Grace Cunniff
Fine Arts
*A Series of Self Portraits*
Adviser: Michael McConnell

Julie Hamel
Art Studio (photography)
*Untitled*
Adviser: Benjamin Cariens

Michael Mackail
Fine Arts (painting)
*Searching, in Paint*
Adviser: Benjamin Cariens

Interdisciplinary Science & Engineering Symposium (ISE)

Poster Presentations

Wednesday, April 21
2–5 p.m.
Kingsbury Hall and Morse Hall

The ISE symposium welcomes and encourages scientific presentations from undergraduate students in all colleges and departments. The event features undergraduate research that contributes to or benefits from an interdisciplinary science and engineering perspective. Students have an opportunity to interact with peers and gain professional experience presenting research. Attendees learn more about research and educational opportunities in science and engineering at UNH. The program will include a poster session, refreshments, and an awards ceremony.

Joshua Allen
Todd Ferrell
Andrew Goodale
David Iani
Jonathan Kasper
Nicholas LaRue
Ryan Malynn
Joseph Muller
Daniel Place
Frank Radlof
Thomas Raffelt
Shawn Savela
Eric Szumiesz
Bradley Turner
Craig Weeden
Mechanical Engineering
Society of Automotive Engineers—Mini Baja
Adviser: Robert Jerard

Jacqueline Amante
Environmental Conservation
Allison Konkowski
Zoology
Katie Kozacka
Riley Nolan
General Biology
Adrien Miller
Wildlife Ecology
*Are Cyanobacteria Toxins Present in Fish Tissue During Winter?*
Adviser: James Haney

William Andreycak
Electrical Engineering
Mirza Asceric
Michael Bentwood
Charles Bonnier
Joel DeMello
Anthony Giuffrida
Eric Heffron
Daniel Kunyz
Andrew Morin
Mechanical Engineering
*UNH ROV Senior Project*
Advisers: Diane Foster and Francis Hludik

Eric-Thomas Arroyo
Pavel Kuznetsov
Ervin Weed
Electrical Engineering
Wireless Activity Monitor
Advisers: Francis Hludik and John LaCourse

Ashley Auger
Amelia DeGrace
Sean Doherty
David Gaylord
Stephen Mayer
Civil Engineering
*University Resource Management Application*
Adviser: Nancy Kinner

Michael Bache
Peter Bannon
Katharine King
Dean Lees
James Rubio
Mechanical Engineering
*Floating Offshore Wind Energy (FLOWE)*
Advisers: Barbaros Celikkol and M. Robinson Swift
Nick Bencivenga ’10

Chemistry

Nick Bencivenga’s research may help boost efforts to make it easier and faster to detect even the tiniest traces of toxins in water supplies.

His URC project will explore a new method for testing water for dissolved metals, such as copper and lead, which are linked to cancer and other diseases.

The winner of several grants from the Hamel Center for Undergraduate Research, Bencivenga also mentors other undergraduates in chemistry. He participated in the 2009 URC as well, and earned an undergraduate research internship last summer with Merck & Co., a global, research-driven pharmaceutical developer.

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Samantha Biron
Chemistry
Fractionation and Quantitative Analysis of Specific Isolated Mushroom Components for Stable Isotopic Tracing Methods
Adviser: Erik Hobbie

Andrew Bisson
Nathan Demers
Daniel Makowicki
Katrina Maloney
Nicholas Reed
Civil Engineering
New ROTC Building
Adviser: Rebekah Briggs

Andrew Bobolas
Geography
Evaluation of WAVEWATCH III Wave Height Forecasts in the Gulf of Maine
Adviser: Mary Stampone

Kari Bolton
Adam Kaplan
Matthew VanZile
Jordan Zapakin
Mechanical Engineering
Tabletop Hydroforming Machine
Adviser: Ioannis Korkolis

Eric Boswell
Imani Lugalla
Mechanical Engineering
UNH Data Center Efficiency Modeling
Adviser: Todd Gross

Theodore Brackett
Christopher Driscoll
Kayla Hampe
Heather Jones
John Kowalski
Jason Peddle
Brian Saari
Clecia Terrio
Civil Engineering
Senior Project: I-93 Exit 5 Bridge Replacement
Advisers: Rebekah Briggs and Kevin Gardner

---

John Ball
Matthew Harding
Gabrielle Lapointe
Patrick Sullivan
Mechanical Engineering
Residential Wind Turbine—Powering the Future
Adviser: Christopher White

Ashley Basnight (guest from Elizabeth City State University)
Mathematics
Hurricane Impact on Trees
Adviser: Barrett Rock

Brett Bauer II
Chemistry
XPS Analysis of Renaissance-Era Ceramics and Identification of Paint Pigments
Adviser: Arthur Greenberg

Andrea Bedell
Dana Filoti (graduate student)
Physics
Texture Evolution of Ag (111) in Phase Segregated Ag-SiO$_2$ Magnetron Sputtered Composite Thin Films
Adviser: James Harper

Sarah Bajor
Mario Giroux
Laura Hood
Raeanna Hughes
Andrew Klein
Jonathan MacBride
Christopher Montigny
Nicole Nazzaro
Alexander Pape
Jason Peddle
Colin Reed
Zachary Schmidt
Gideon Spitzer-Williams
Alexander Stitt
Thomas Zakarian
Zachary Zavalianos
Civil Engineering

Jeremy Belanger
Environmental Engineering
UNH ASCE Concrete Canoe Competition
Adviser: Ricardo Medina

Nicholas Bencivenga
Chemistry
Synthesis of Novel Polymerizable Ligands Providing -1 to 0 and +1 to +2 Charge Transitions in a Poly-NIPA Polymer System
Adviser: Roy Planalp
May-Win Thein
Associate Professor, Mechanical Engineering

For May-Win Thein, the best thing about working with students who design, build, and race the Formula SAE car isn’t that it can drive up to 120 mph, but watching the team work together throughout the year to finish the car in time for the grand unveiling at the URC.

“‘This is their chance to show the results of all their blood, sweat, and tears,’” says Thein, an URC faculty mentor. “For some of them, this project represents the culmination of four years of hard work. And to watch it all come together is so rewarding.”

Thein says she learns a good deal from her URC students, who challenge her as they stretch their academic muscles to build a better racecar. During last year’s URC, the team received a 2009 ISE Award of Excellence for Mechanical Engineering.
<table>
<thead>
<tr>
<th>Name</th>
<th>Advisor/Advisers</th>
<th>Department</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielle Haddad</td>
<td>Scott Ollinger</td>
<td>Environmental Science: Ecosystems</td>
<td>Modeling Atmospheric Deposition Across the Northeastern U.S. and Its Potential Effects on Forest Albedo</td>
</tr>
<tr>
<td>Cedric Hall (guest from Elizabeth City State University)</td>
<td></td>
<td>Computer Science</td>
<td>Survey and Analysis of Post-LGM Environment</td>
</tr>
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<td>Kayla Hampe</td>
<td>Benjamin Branch and Malcolm LeCompte (ECSU)</td>
<td>Civil Engineering</td>
<td>Environmental Impacts on Bridge Performance</td>
</tr>
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<td>Michele Heller</td>
<td></td>
<td>Marine and Freshwater Biology</td>
<td>Manual Classification of Atlantic Juvenile</td>
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<td>Kaitlyn Dugan</td>
<td>Francis Hludik and May-Win Thein</td>
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<td>Student Mathematical Understanding as a Product of the Learning Environment</td>
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<td>Michael Dunstan</td>
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Kyle Janco
Civil Engineering
Bunker Pond Dam
Adviser: Kevin Gardner

Michael Jefferson, Jr. (guest from Elizabeth City State University)
Computer Science
Automatic Ice Thickness Estimation from Polar Subsurface Radar Imagery
Adviser: Arvin Agah (ECSU)

Henry Jones
Wildlife Ecology
Assessing the Impact of Moose Browsing on Regenerating Commercial Tree Species in Northern New Hampshire
Adviser: Peter Pekins

Adam Jordan
Joseph Wilson
Mechanical Engineering
Experimental Investigation of a Stress Based Failure Criterion to Advance Sheet Metal Forming
Adviser: Brad Kinsey

Colin Joyce
Physics
Excitation of Low-Frequency Waves in the Solar Wind by Newborn Interstellar Pickup Ions H+ and He+ as Seen by Voyager at 4.5 AU
Adviser: Charles Smith

Kyle Kalukiewicz
Physics and Mathematics
Calabi-Yau Manifold Construction For Axionic String-Inflation
Adviser: Per Berglund

Sean Kenney
Brian Sicard
Mark Thomas
Electrical Engineering
High Speed Stepped Electronic Load for Dynamic Testing of DC/DC Converters
Advisers: John Canfield and Kuan Zhou

Tyler King
Environmental Science: Hydrology
Isotopic Analysis of Snowpack Meltwater
Advisor: Matt Davis

Megan Kramer
Aaron Williams
Mechanical Engineering
Wave Energy Conversion Project
Adviser: Christopher White

Ryan Lashin
Peter Lorenz
Electrical Engineering
Audible Tone Reproduction Via High-Voltage Arc Gap
Adviser: Nicholas Kirsch

Lauren Lazarus
Physics and Classics
System Dynamics of Coupled Nonlinear Oscillators
Adviser: Dawn Meredith

Michael Leighton
Computer Science
Object Image Classification: Comparison of Classifiers
Adviser: Wheeler Ruml

Xiameng Liu
Chemical Engineering
Drop Formation in Co-Flowing Fluids
Adviser: Nivedita Gupta

Jennifer Luoma
James Melfi
Allison Yost
Mechanical Engineering
Visualization of an Oil/Water Interface in a Hele-Shaw Cell
Advisers: Greg Chini and Christopher White

Robert Mamone
Brett O'Connor
Electrical Engineering
Wireless Speaker System
Adviser: Richard Messner

Mark Mankus
Electrical Engineering

Jason Medas
Mechanical Engineering
Experimental Investigation of a Stress Based Failure Criterion to Advance Sheet Metal Forming
Adviser: Brad Kinsey

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Electrical Engineering
Wireless Speaker System
Adviser: Richard Messner

Mark Mankus
Electrical Engineering

Jason Medas
Joseph Pye
Kenneth Roy
Logan Trombley
Mechanical Engineering
Fire-Fighting Robot—Ignivinco
Advisers: Barry Fussell and Kuan Zhou

Kamal Mohamed
Aaron Stewart
Computer Engineering

Kyle Maroney
Maximillian Reuning
Amy Schwarzenberg
Austin Wolfson
Electrical Engineering
UNH Combat Robot
Adviser: Francis Hludik

Steven Mays
Computer Engineering
Wi-Fi Controlled Unmanned Vehicle
Adviser: Francis Hludik

Brian McConnell
Dakota Smith
Chemical Engineering
Growth of High-Lipid Microalgae in Saltwater
Adviser: Ihab Farag

Jason Medas
Mechanical Engineering
Dynamic Analysis of TableSatI for NASA's Magnetospheric MultiScale (MMS) Mission
Adviser: May-Win Thein

Kyle Merkert
Electrical Engineering
Microprocessor Controlled Battery Backup System
Adviser: Wayne Smith

Richard Messeder
Physics
Satellite Potentials and Charged Particle Behavior in Tenuous Plasmas
Adviser: Roy Torbert

Ryan Mitchell
Patrick Moon
Justin Pelletier
Eric Picard
Sean Tarbox
Civil Engineering
UNH Steel Bridge Senior Design Project
Adviser: Rebekah Briggs

Patrick Moon
Civil Engineering
Fractures and Mechanical Properties of Bone
Adviser: Raymond Cook
Kaitlyn Steele ’10
Environmental Science

Kaitlyn Steele studied water and sediment samples in the region to measure the amounts of methane (a greenhouse gas) they carry and release. Her URC research will detail the flux of methane concentrations in local rivers, the Great Bay estuary, and the Gulf of Maine. Such work may help scientists target strategies to reduce methane emissions.

Steele plans to expand her research at NASA’s Goddard Space Flight Center in Greenbelt, Maryland, over the summer. She hopes to pursue graduate studies at UNH in the fall, studying geochemical systems.
### UNH Manchester Undergraduate Research Conference

#### Poster Presentations

**Wednesday, April 21**

**4–6 p.m.**

**UNHM Auditorium**

The UNH Manchester Poster Presentations showcase students’ independent research and internship projects, service learning activities, and civic engagement projects in the learning lab of the City of Manchester.

<table>
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<tr>
<th>Presenter</th>
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<th>Adviser(s)</th>
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<td>Samantha Allwood</td>
<td>English</td>
<td>Bob Dylan</td>
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<tr>
<td>Amanda Anderson</td>
<td>Communication Arts</td>
<td>Amy Keating</td>
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<tr>
<td>Ashlee Lange</td>
<td>Communication Arts and Community Leadership</td>
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<tr>
<td>Anna Carrigan</td>
<td>Community Leadership and Applied Animal Science</td>
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<tr>
<td>Elizabeth Brideau</td>
<td>General Studies</td>
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<tr>
<td>Paula VanDeWerken</td>
<td>Undeclared</td>
<td>Jacquelyn Wescott</td>
</tr>
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<td>Kourtney Auger</td>
<td>Psychology</td>
<td>Evaluation of the PALs program</td>
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<tr>
<td>Rebecca Swanwick</td>
<td>Chemistry</td>
<td>Macromolecular Architecture Development in Seeded Emulsion Polymerization—A Mechanistic Study</td>
</tr>
<tr>
<td>Thomas Swass</td>
<td>Hydrology</td>
<td>The Effects of a Green Roof on Runoff, Storage, and Water Chemistry</td>
</tr>
<tr>
<td>James Tinsley</td>
<td>Physics</td>
<td>Studies of the Turbulent Spectrum of Interplanetary Plasma Fluctuations</td>
</tr>
<tr>
<td>Kent Walker</td>
<td>Civil Engineering</td>
<td>Stormwater Management: The Relationship Between Storm Characteristics and Pollutant Removal</td>
</tr>
<tr>
<td>Thaddaeus Webster</td>
<td>Chemical Engineering</td>
<td>Temperature Stressing of High Lipid Algae to Produce Biodiesel</td>
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<td>James Woidt</td>
<td>Civil Engineering</td>
<td>Queueing and Economic Analysis of Uphill Ski Traffic at New Hampshire Ski Resorts</td>
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<tr>
<td>Joshua Wood</td>
<td>Physics</td>
<td>Neutron and Gamma Ray Imaging with the Gamma-Ray Experimental Telescope Assembly (GRETA)</td>
</tr>
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<td>Bianca Young (guest from Mount Holyoke College)</td>
<td>Environmental Science: Ecosystems</td>
<td>The Role of Sphagnum Mosses in Methane Cycling of a Northern Peatland Fen</td>
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<td>Erika Bagley</td>
<td>English</td>
<td>Bob Dylan &amp; His Place in the Folk Revival</td>
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<td>Kimberly Barthelmes</td>
<td>History</td>
<td>A Beautiful Place to Rest</td>
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<td>Reacting and Remembering: Life After the Holocaust</td>
</tr>
<tr>
<td>Danielle Beaulieu</td>
<td>Biological Sciences</td>
<td>The Affects of Timber Harvesting on the Massabesic Watershed</td>
</tr>
<tr>
<td>Jillian Boniface</td>
<td>History</td>
<td>The Correlation Between the Sanitary Issues That Were Prevalent in Manchester and the Diseases That Affected the Population During the Years 1830–1855</td>
</tr>
<tr>
<td>Shannon Boudreau</td>
<td>Sarah Jo Merriman</td>
<td>Planet Aid</td>
</tr>
<tr>
<td>Michael Cochran-Boucher</td>
<td>Biological Sciences</td>
<td>Obesity and Pregnancy: Associated Morbidities</td>
</tr>
<tr>
<td>Melinda Cormier</td>
<td>Business</td>
<td>The Use of Social Networking and Increased Internet Communications Creates Stronger Brand Awareness than Traditional Media Alone for Non-Profit Organizations</td>
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<td>Psychology</td>
<td>Evaluation of the PALs program</td>
</tr>
<tr>
<td>Erik Croto</td>
<td>History and Education</td>
<td>Manchester, New Hampshire’s First Mills</td>
</tr>
</tbody>
</table>
John-Paul Padfield  
History  
The Foundations and Building of  
St. Marie’s Church  
Adviser: Robert Macieski  

Courtney Palladino  
History  
Music, Music, Music  
Adviser: Robert Macieski  

Justin Tulgren  
Computer Information Systems and  
Business  
Ektron VMware Restructure  
Adviser: Karla Vogel  

Colleen VanOnselen  
Psychology  
Decisions Program: Working with Inmates in Hillsborough County  
Adviser: Alison Paglia  

Caroline Wicks  
History  
The Morality of Women in Antebellum Manchester  
Adviser: Robert Macieski  

UNH Manchester Undergraduate Research Conference  

Cinema Arts Day  

Thursday, April 22  
11 a.m.–1 p.m.  
University Center, Manchester  

The UNH Manchester 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.

Jacqueline Geisheimer  
Communication Arts and English  
Tarenella: Cinderella X Kill Bill  
Adviser: Keith Shields  

David Klein  
Communication Arts  
The Storm  
Adviser: Anthony Tenczar  

David Klein  
Communication Arts  
The Iron Maiden  
Adviser: Anthony Tenczar  

David Klein  
Communication Arts  
A Walk In The Snow  
Adviser: Anthony Tenczar  

David Klein  
Communication Arts  
Pillow Poetry  
Adviser: Anthony Tenczar  

Kevin Mason  
Communication Arts and Politics and Society  
A is for Atom  
Adviser: Anthony Tenczar  

Raymond Murphy  
Communication Arts  
Beneath The Sinews  
Adviser: Anthony Tenczar  

Ian Reddick  
Communication Arts  
Warmth from the Millyard  
Adviser: Thomas Birch  

Ian Reddick  
Communication Arts  
New Brews: The Reintroduction to Craft Brewing in New England  
Adviser: Anthony Tenczar  

Chrissy Dobbins  
History  
History of Education in the 19th Century Manchester, New Hampshire, 1847–1857  
Adviser: Robert Macieski  

Nicole Elesi  
English  
The Possibility of Computers  
Understanding Human Language  
Adviser: Terry Savage  

Laura Fidler  
History and Psychology  
Crime in Early Manchester, New Hampshire  
Adviser: Robert Macieski  

Scott Frizzell  
English  
Peter, Paul & Mary  
Adviser: Fred Metting  

Jacqueline Geisheimer  
Communication Arts and English  
Ramblin’ Jack Elliott: The Forgotten Link  
Adviser: Fred Metting  

Karen Handley  
Biological Sciences and Computer Information Systems  
Water Filter Microbiology  
Adviser: Lorraine Doucet  

Nathan Jensen  
History  
Origins of the Manchester Locomotive Works  
Adviser: Robert Macieski  

Bryan Lavoie  
History  
Early Manchester Politics  
Adviser: Robert Macieski  

Robert Montgomery  
History  
Birth of a City: Manchester, New Hampshire, 1840–1850  
Adviser: Robert Macieski  

Tarenella: Cinderella X Kill Bill  
Adviser: Keith Shields
### The Naked Arts—Creativity Exposed!

**Act II**

**Thursday, April 22**
12:30–2 p.m.
*Museum of Art, Paul Creative Arts Center*

This event exposes the inner creative process of artists working in various disciplines. Student presenters will describe the work they undertake to bring an artistic creation from initial inspiration to the stage or gallery.

- **George Adams**
  - Music
  - *Speech Music: Experiments in Musicalizing Language*
  - Adviser: Rob Haskins

- **Victoria Carot Joseph Nelson Andrew Saladino**
  - Theatre
  - *Research and the Creative Process: Creating the World of Parade*
  - Adviser: David Richman

- **Emma Duffy-Comparone**
  - Political Science and English
  - *The Evolution of a Fictional Narrative: A Reading from “Marvels Sands” and Discussion*
  - Adviser: Thomas Payne

- **Joshua Torbick**
  - Art Studio
  - *Architectural Materials for Outdoor Furniture*
  - Adviser: Benjamin Cariens

### History Department Undergraduate Presentations

**Thursday, April 22**
12:40–2 p.m.
*Memorial Union Building, Rooms 338/340*

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

- **Michael Branley**
  - History and Political Science
  - *An Analysis of the Drafting and Motivations Behind the Second American Constitution*
  - Adviser: J. William Harris

- **Thibaut Delloue**
  - History
  - *Manchester’s Franco-Americans During the Great War*
  - Adviser: Lucy Salyer

- **Katie Fryer**
  - History
  - *American Soldier’s Experiences In World War I and Propaganda at Home*
  - Adviser: Janet Polasky

- **Jesse Gagnon**
  - History and Spanish
  - *Dress and Identity in Colonial Latin America*
  - Adviser: Julia Rodriguez

- **Reagan Grady**
  - Communication
  - *American Revolution*
  - Adviser: Janet Polasky

- **Mary Nolin**
  - History
  - *The Civil Rights Movement: A Cultural Revolution*
  - Adviser: Janet Polasky

- **Camila Pawlowski**
  - History
  - *The Spanish Civil War 1936–1939*
  - Adviser: Janet Polasky

### UNH Manchester Undergraduate Research Conference

**Engineering Technology Senior Project Presentations**

**Friday, April 23**
8:30 a.m.–3 p.m.
*University Center, Manchester*

The UNH Manchester 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.

- **Cory Chamberlain**
  - Mechanical Engineering
  - *Dust Test Chambers*
  - Adviser: Ralph Draper

- **Joseph Del Trecco**
  - Mechanical Engineering
  - *Thermal Interface Resistances*
  - Adviser: Ralph Draper

- **Nicholas Druke**
  - Electrical Engineering
  - *Technical Evaluation of the Open CL Framework*
  - Adviser: David Forest

- **Lee Dutton**
  - Mechanical Engineering
  - *F22 Module*
  - Adviser: Ralph Draper

- **Peter Herrick**
  - Mechanical Engineering
  - *Hook and Loop Peel Performance Time Correlation*
  - Adviser: Ralph Draper

- **Emin Mukanovic**
  - Electrical Engineering
  - *Build and Evaluate DSP2 for Narrow Band Filter 0.1 MHz Spur Search Program for QA Tests on DSP2*
  - Adviser: David Forest
Parents Association Undergraduate Research Symposium

Welcome Breakfast with UNH Provost John Aber and Parents Association Council President-elect Peter Hayden

Friday, April 23
9–9:30 a.m.
Memorial Union Building, Granite State Room

This informal gathering gives students and attendees an opportunity to visit with UNH Provost John Aber and Parents Association Council President-elect Peter Hayden. Both speakers will provide a preview of the large University-wide event that follows—the Parents Association Undergraduate Research Symposium.

Parents Association Undergraduate Research Symposium

The Parents Association Undergraduate Research Symposium showcases students from all disciplines. Students present their faculty-mentored projects in either of two interactive poster sessions, or in one of the three oral presentation sessions. University-wide participants come from a variety of disciplines.
High-quality undergraduate research is the hallmark of a University of New Hampshire education. With funds provided by the Parents Association, the University has been able to increase its support to students during the UNH Undergraduate Research Conference (URC). Funding student innovation: it’s one of the many ways the Parents Association enhances the University’s academic mission.

UNH Parents working on behalf of students.
Elizabeth Weber  
Psychology  
The Effects of Digit Ratio and Polychronicity on Task Switching  
Adviser: Andrew Leber

Matthew Wilkinson  
Psychology  
Planning Behavior in the Pigeon: Efficiency on Single and Round Trip Tasks  
Adviser: Brett Gibson

Megan Yee  
Psychology  
Do Ultrasonic Vocalizations During Swim Stress Predict Resistance to Behavioral Depression in Rats?  
Advisers: Robert Drugan

**Social Work: Extraordinary Experiences!**  
9:30 a.m.–Noon

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

Moderators: L. Rene Bergeron and Gretchen Bean

Dana Albert  
Social Work  
*Creative Expression: Finding Our Voices*  
Adviser: L. Rene Bergeron

Sarah Andersen  
Social Work  
*College Food Pantries: When Dining Halls Are Not Affordable*  
Adviser: L. Rene Bergeron

Samantha Benton (UNH McNair Scholar)  
Social Work  
*Children That Need Us The Most: The Achiever Selection Process of “Friends of the Children—Boston”*  
Adviser: L. Rene Bergeron

Nicole Bourgoin  
Social Work  
*An Afternoon in the Life of a “New Outlook” Teen*  
Adviser: L. Rene Bergeron

Alissa Brady  
Social Work  
*Hand Drumming: Promoting Community and Healing*  
Adviser: Gretchen Bean

Samantha Brown  
Social Work and Justice Studies  
Positive Youth Development and Residential Placements: Embracing the Opportunities for At-Risk Youth  
Adviser: Gretchen Bean

Elizabeth Brownell  
Social Work and Spanish  
*Bilingual Teaching in the Classroom*  
Adviser: Gretchen Bean

James Childs  
Social Work  
*Somersworth Youth Connection: The Spirit Up Somersworth Campaign*  
Adviser: Gretchen Bean

Jessica Curry  
Social Work  
*Bullies Be Gone*  
Adviser: L. Rene Bergeron

Ashley Graffam  
Social Work  
*Empowering Personal Growth Through Community Resources*  
Adviser: L. Rene Bergeron

Rebecca Hamerstrom  
Social Work  
*Independent Living: The Benefits of the Homemaker Program*  
Adviser: L. Rene Bergeron

Whitley Harden  
Social Work  
*Dover Teen Center: A Positive After School Experience*  
Adviser: Gretchen Bean

Heather Hartshorne  
Social Work  
*The Truth About Mental Illness: Facts and Fiction*  
Adviser: L. Rene Bergeron

Christopher Hoerner  
Social Work  
*What’s Diversion? New Heights Community Diversion Model*  
Adviser: Gretchen Bean

Euna Kim  
Social Work  
*Discharge Planning: What are the Needs of Released Inmates?*  
Adviser: Gretchen Bean

Kelly Martell  
Social Work  
*Attitudes Toward Mental Illness: A College Student Perspective*  
Adviser: Robert Jolley

Jenny Oien  
Social Work  
*The Road to Protecting Our Children*  
Adviser: L. Rene Bergeron

Erika Palleo  
Social Work  
*I’m Homeless. Now What?*  
Adviser: L. Rene Bergeron

Alexandra Perch-Ahern  
Social Work  
*Diversion: A Second CHANCE for Adolescents*  
Adviser: Gretchen Bean

Alexandra Quig  
Social Work  
*Rebuilding After A Violent Crime: Victim’s Compensation*  
Adviser: L. Rene Bergeron

Michael Ralph  
Social Work  
*Changing Childhood Risk Factors to Emerging Adult Strengths*  
Adviser: L. Rene Bergeron
Kelsey Rees  
Social Work  
*I Can Take Care of Myself: Self Defense as a Way to Raise Teenage Girls’ Self-Esteem*  
Adviser: Gretchen Bean

Leah Rice  
Social Work  
*The Road to Change: An Overview of the Change Process*  
Adviser: L. Rene Bergeron

Rebecca Rutledge  
Social Work  
*Who Decides? The Future of Consumer Directed Services*  
Adviser: L. Rene Bergeron

Jonathan Scholl  
Social Work  
*Kids These Days: Emerging Issues in Substance Use*  
Adviser: Gretchen Bean

Sarah Scott  
Social Work  
*The Feminist Health Center of Portsmouth Through the Years*  
Adviser: Gretchen Bean

Victoria H. Smith  
Social Work  
*The Feminist Health Center of Portsmouth Through the Years*  
Adviser: Gretchen Bean

Parents Association Undergraduate Research Symposium

Oral Presentations, Session A

Friday, April 23  
9:30–10:40 a.m.  
Memorial Union Building

MUB, Room 321

**Honors Program: U.S. and Asia (China and Korea)**

Moderator: Chris Wasileski

Timothy Brock  
Undeclared  
*The Korean War: An Armistice with No Peace*  
Adviser: Lawrence Reardon

Christina Dokopoulos  
Anthropology and Political Science  
*President Truman and the Decision on Korea*  
Adviser: Lawrence Reardon

MUB, Room 237

**Feminism in Action: Community-based Internships and Inquiry in Women’s Studies**

Moderator: Carina Self

Sara Bibeau  
Psychology and Women’s Studies  
YWCA Crisis Center, Manchester, New Hampshire  
Adviser: Carina Self

Rachel Canova  
Family Studies and Women’s Studies  
NARAL Pro-Choice NH, Concord, New Hampshire  
Adviser: Carina Self

Ting Chin  
Sociology  
Planned Parenthood of Northern New England, Concord, New Hampshire  
Adviser: Carina Self

Caitlin LeMay  
Psychology  
Strafford County Department of Corrections, Dover, New Hampshire  
Adviser: Carina Self

Emily Lovell  
Political Science  
New Hampshire Women’s Lobby and New Hampshire Women’s Alliance  
Adviser: Carina Self

Anne Mathe  
Sociology and Women’s Studies  
Health Services, UNH, Durham, New Hampshire  
Adviser: Carina Self

MUB, Room 332

**International Affairs—Democracy and Political Involvement**

Moderator: Benjamin Cole

Melanie Condon  
International Affairs and Political Science  
*Chile: A Model for Stable Democracy in Latin America*  
Adviser: Lawrence Reardon

Sarah Finney  
International Affairs and Spanish  
*The Collapse of the Chilean Democratic Tradition*  
Adviser: Lawrence Reardon
Lisa Gutermuth
International Affairs and Business Administration
Activism vs. Apathy: The Evolution of Political Involvement
Adviser: Benjamin Cole

Meghan Kayser
International Affairs and Political Science
The European Union and the Democratic Deficit
Adviser: Benjamin Cole

Kristin Keohan
International Affairs and Spanish and Mathematics
Development and Neoliberalism in Nicaragua
Adviser: Benjamin Cole

MUB, Room 336
International Affairs—Global Social Problems and Solutions
Moderator: Theodore Howard
Jordan Caley
International Affairs and Spanish
Narcos versus the Nation: Drug-related Violence in Mexico
Adviser: Lawrence Reardon
Rachel Kelly-Martin
International Affairs and Kinesiology
Comparing Education: Ghana and Paraguay
Adviser: Benjamin Cole
Sarah Strosahl
International Affairs and Music Education
On the Border: Domestic Abuse in Mexico
Adviser: Lawrence Reardon
Danielle Vasan
International Affairs and Communication
Spain and the Bologna Plan: A Modern Day Controversy
Adviser: Lawrence Reardon
Courtney Wright
International Affairs and Political Science
Organized Crime in the Italian Mezzogiorno
Adviser: Lawrence Reardon

MUB, Room 333
International Affairs—Nationalism, Discrimination, and Xenophobia
Moderator: Jeannie Sowers
Rudy Benik
International Affairs and Russian
Extreme Xenophobia in Post-Soviet Russia
Adviser: Lawrence Reardon
Bethany Brace
International Affairs and Spanish
English Supremacy: Why Spain Enacted Dual Language Education
Adviser: Benjamin Cole

Bridget Farmer
International Affairs and Political Science
French Xenophobia Towards Muslims
Adviser: Benjamin Cole
Madlena Pesheva
International Affairs and Recreation Management and Policy
Violation of Roma Human Rights in Eastern Europe
Adviser: Lawrence Reardon
Kayla Timmons
International Affairs and Communication and Linguistics
Italian Discrimination Against the Muslim Population
Adviser: Benjamin Cole

MUB, Room 338
International Affairs—The Cost and Benefits of Economic Development
Moderator: Lionel Ingram
Xiomara Alban
International Affairs and Spanish
Trouble in Paradise: Ecotourism in Costa Rica
Adviser: Lawrence Reardon
Sarah Lemelin
International Affairs and Communication
Reality Tourism and Improving Low-Income Housing
Adviser: Benjamin Cole
Andrew Pratt
Political Science
Trade Liberalization as India’s Choice in the Global Economy
Adviser: Lionel Ingram
Rebecca Smith
International Affairs and Business Administration
Environmental Policy and NGOs in China
Adviser: Benjamin Cole
Tyler King ’10
Hydrology

Tyler King is researching how snowpack contributes to regional aquifers. Using stable isotope analysis, his URC project shows how it’s possible to trace snowmelt as it infiltrates and recharges groundwater. After graduation, King intends to pursue a graduate degree in water resource management and to dedicate himself to the field of equitable public water supply systems.

Meagan Wengrove
International Affairs and Civil Engineering
Upstream to Downstream: Water Quality in Mayagüez, Puerto Rico
Adviser: Lawrence Reardon

MUB, Room 304

Media Images
Moderator: Joshua Meyrowitz

Daniel Dostoler
Communication
Not So Black and White: An Analysis of the Grammar Variables Presented in Sports Illustrated
Adviser: Joshua Meyrowitz

Emily O’Neill
Communication
American Beauty: Ordinary Plot with Extraordinary Grammar Variables
Adviser: Joshua Meyrowitz

Jocelyn Ouellette
Communication
Italian-American Stereotypes in Television: Gangsters, Mothers, Sex Symbols, and Fessos
Adviser: Joshua Meyrowitz

Kimberly Rogers
Communication
All the Fun of College, None of the Education, and Other Lies Told by Hollywood
Adviser: Joshua Meyrowitz

MUB, Room 233

Multidisciplinary Session 1
Moderator: Christopher Kies

Elizabeth Beaudoin
Art History and Art Studio
Falling Behind, But Perfecting a Style: Finding a Place in History for Artist William Bouguereau
Adviser: Rebecca Karo

Katie David
Classics and History
Protecting the Fundamentals of European Culture During World War II
Adviser: Nicoletta Gullace

Kirstin Striker
English
Translating the Poetry of Hans Lodeizen from Dutch to English
Adviser: Martin McKinsey

Eric Wind
Political Science
Thomas Jefferson in Neoclassical Architecture, Using Architectural History to Evaluate the Statesman
Adviser: Rebecca Schwartz

MUB, Room 302

Multidisciplinary Session 2
Moderator: Molly Doyle

Sophie Ellis
Wildlife Ecology
Grazing Techniques in the Doro Nawas Conservancy in Namibia, Africa
Adviser: Peter Pekins

Krysten Finefrock
Health Management and Policy
Role of a Community’s Ecology in Effectively Communicating Environmental Health Risks to Diverse Refugee Populations
Adviser: Rosemary Caron

Danah Hashem
Hom Sharma
Chemical Engineering
Nanofiltration Membrane Stabilization of Bio-oil
Adviser: Ihab Farag

Thaddeus Webster
Chemical Engineering
Temperature Stressing of High-Lipid Algae to Produce Biodiesel
Adviser: Ihab Farag
Parents Association
Undergraduate Research Symposium

Posters Presentations, Session B

Friday, April 23
10:50 a.m.—Noon
Memorial Union Building, Granite State Room

Jordan Anderson
Jon Bonneau
Joshua Torr
Kinesiology
An Assessment of Stress and Burnout Among High School Athletic Directors
Adviser: Heather Barber

Kevin Anderson
Psychology
The Role of Norepinephrine in Reward Learning: Evidence from a Lesion Study of the Orbitofrontal Cortex
Adviser: Jill McGaughy

Ashley Auger
Amelia DeGrace
Sean Doherty
Civil Engineering
University Resource Management Application
Adviser: Nancy Kinner

Elizabeth Beaudoin
Art History and Art Studio
Sarah Wyman Whitman—A New England Artist
Adviser: Mara Witzling
Lindsay Bergmann  
Nursing  
A Qualitative Study of TASO’s  
Home-Based HIV Counseling and Testing Program in Rural Uganda  
Advisers: Gene Harkless and Carol Williams-Barnard

Emma Carroll  
Stephanie Lanza  
Sociology  
Male and Female College Students’ Motivations to Attend the Gym or Not  
Adviser: Catherine Moran

Lindsay Chase  
Animal Sciences: Pre-veterinary Medicine  
Effect of Kelp on Growth of Dairy Calves  
Advisers: Andre Brito and Nancy Whitehouse

Kimberly Deane  
Classics  
New Evidence on Ancient Olympic Athletes  
Adviser: Stephen Brunet

Ashli Franck  
Nutritional Sciences  
Farm to Food Bank  
Adviser: Joanne Burke

Heather Froehlich  
English and Linguistics  
Native and Adopted Prefixes in English Morphology: A Comprehensive Study of Locative Prefixes in English Word Formation  
Adviser: Rochelle Lieber

Cassandra Guerra  
Zoology  
Social Intelligence in Asian Elephants  
Elephas maximusI: Object Choice Tasks  
Adviser: Michelle Scott

Autumn Henley  
Occupational Therapy  
The Use of the Behavioral Assessment for Dysexecutive Syndrome in Adolescents and Young Adults with Prodromal Signs of Psychosis  
Adviser: Kerryellen Vroman

David Houle  
Psychology and International Affairs  
Personality Image Archive: Personality in the Face  
Adviser: John Mayer

Kathleen Keating  
Molecular, Cellular and Developmental Biology  
Lin Shao (graduate student)  
Plant Biology  
Regulation of Polyamine Gene Expression in Arabidopsis thaliana  
Adviser: Subhash Minocha

Kie Kuwabara (graduate student)  
Psychology  
Tanya Rouleau  
Major: Psychology and Sociology  
Children’s Use of Autobiographical Memories During Social Problem-solving  
Adviser: David Pillemer

Andre Littlefield  
Biochemistry  
Understanding Adipocyte-Mediated Angiogenesis  
Adviser: Deena Small

Tsion Mamo (UNH McNair Scholar)  
Psychology  
Providing Negative Feedback to Highly Insecure Individuals  
Adviser: Edward Lemay

Rebecca Misra  
Psychology  
Digging Deeper Into the Medial Temporal Lobe: Does Aging Impact Cortical Layers Differently?  
Adviser: Jill McGaughy

Kaitlyn Mortimer  
Communication Sciences and Disorders  
Technology and Nonverbal Communication: The Relationship Between Text-based Communication and Tone of Voice Perception  
Adviser: Penelope Webster

Christina Patenaude  
Health Management and Policy  
Role of HIV Education in the Perceptions of the Disease Among College Students  
Adviser: Semra Aytur

Alicia Perry  
Nursing  
Relationship Among Perfectionism and Daily Hassles on Headache in Undergraduate Nursing Students  
Adviser: Joanne Samuels

Allison Reilly  
Nursing  
Cultural Reform in Acute Care: Learning from Australia’s “Improving the Culture of Hospitals” Project  
Adviser: Gene Harkless

Paige Smith  
Occupational Therapy  
The Things Kids Do: Exploring Relations Among Occupations, Weight, Stress, and Health  
Adviser: Barbara White

Hailey Sullivan  
Occupational Therapy  
“You don’t come home from war. You come home with war:” The American Veteran Re-Integration Experience Post Deployment to Iraq or Afghanistan  
Adviser: Kerryellen Vroman

Aarron Winter (UNH McNair Scholar)  
Psychology  
Personality in the Face  
Adviser: John Mayer

Evelyn Yuen  
Nutritional Sciences  
Physical Activity and Bone Health of College Students  
Adviser: Jesse Morrell
Parents Association
Undergraduate Research Symposium

Oral Presentations, Session B
Friday, April 23
10:50 a.m.–Noon
Memorial Union Building

MUB, Room 302
Honors in Communication
Session 1
Moderator: Danielle Pilet-Shore

Alex Armenakis
Communication and Political Science
Generation Virtual Connect
Adviser: Danielle Pilet-Shore

Heather Atwater
Communication
The Development of the Department Store and How it Has Affected American Consumerism
Adviser: Danielle Pilet-Shore

Gillian Barbato
Communication
Rhetorical Science: The Organic Craze
Adviser: Danielle Pilet-Shore

Kimberly Rogers
Communication
First Impressions in Business Settings
Adviser: Danielle Pilet-Shore

MUB, Room 338
International Affairs—Global Financial, Economic and Employment Problems
Moderator: Robert Mohr

Colleen Connors
International Affairs and Spanish
Costa Rica and the Impact of Nicaraguan Immigration
Adviser: Lawrence Reardon

Eva Jacobson
International Affairs and Political Science
The Positive Impact of Immigration on Spanish Society
Adviser: Lawrence Reardon

Eric Murphy
International Affairs and German
Unemployment in Europe's Largest Economy: Germany
Adviser: Lawrence Reardon

MUB, Room 330
International Affairs—Power and Stability
Moderator: Stacey VanDeveer

Amanda Flitter
International Affairs and English/Journalism
The Argentine Question: Why Didn't Argentina Become a Superpower?
Adviser: Benjamin Cole

Dimitri Kalinin
International Affairs and Russian
Developing Weltanschauung of Russian Diplomats
Adviser: Lawrence Reardon

Sophia Weeks
International Affairs and Political Science
Defining Democracy: Is Cuba a Contender?
Adviser: Lawrence Reardon

Jessica Wilson
International Affairs and Spanish
Comparative Analysis of Political Stability in Central America
Advisers: Benjamin Cole and Janet Gold

Justin Schubert
International Affairs and Business Administration and German
Big Bank, Small Country: Switzerland, the Financial Crisis, and EU Membership
Adviser: Benjamin Cole

Brittany Weaver
International Affairs and Political Science
Italy in Debt
Adviser: Lawrence Reardon
MUB, Room 332

**International Affairs—Struggling with Ethnicity and Regionalism**

Moderator: Jeff Sherman

- Elizabeth Carson
  International Affairs and Hospitality Management
  *Taiwan's Struggle with National and Ethnic Identity*  
  Adviser: Lawrence Reardon

- Spencer Kenyon
  International Affairs and English
  *Ethnic and Cultural Identity: The Root of Western European Nationalism and Armed Resistance*  
  Adviser: Lawrence Reardon

- John Lennon
  International Affairs and Spanish
  *Strong Regionalism in Spain*  
  Adviser: Lawrence Reardon

- Wegene Wells-Bogue
  International Affairs and Political Science
  *The State of Ethnic Federalism in Ethiopia*  
  Adviser: Lawrence Reardon

- Jenna Zullo
  International Affairs and Psychology
  *The Decline of Nationalism in France*  
  Adviser: Lawrence Reardon

MUB, Room 334

**International Affairs—Two Taboo Topics—Religion and Politics**

Moderator: Michele Dillon

- Elizabeth Aleo
  International Affairs and Psychology
  *From Tradition to Transition: Spain's Relationship with the Catholic Church*  
  Adviser: Lawrence Reardon

- Samantha Bowen
  International Affairs and Communication
  *Islam and the French State*  
  Adviser: Lawrence Reardon

- Kaitlin O'Brien
  International Affairs and English
  *The Rise of Islamic Fundamentalism in Morocco*  
  Adviser: Benjamin Cole

- Jonathan Yankum
  International Affairs and Spanish
  *Religious Tolerance in Spain*  
  Adviser: Benjamin Cole

MUB, Room 237

**Multidisciplinary Session 4**

Moderator: Catherine Moran

- Jennifer Baker
  Psychology

- Morgan Desilio
  Psychology and Justice Studies

- Sara Douglas
  Psychology

- Laura Jarvis
  Psychology

- Alissa Fulford
  Psychology and Justice Studies

- Benjamin Stewart
  Psychology and Justice Studies

- Meaghan McCusker
  Health Management and Policy and Women's Studies

- Alissa Fulford
  Psychology and Justice Studies

- Colleen Hunt
  Sociology and Justice Studies

- Amanda Tenedios
  Sociology and Justice Studies

- Meaghan McCusker
  Health Management and Policy and Women's Studies

- Illicit Use of Adderall on College Campuses
  Adviser: Catherine Moran

- Meaghan McCusker
  Health Management and Policy and Women's Studies

- The Correlation of Alcohol, Other Drugs, and Sexual Abuse: A Look at New Hampshire College Students
  Adviser: Robert McGrath

- Courtney Stevens
  (Winner of the 2010 Discovery Program Award for Outstanding Research on Health)

- Elizabeth Aleo
  International Affairs and Psychology

- From Tradition to Transition: Spain's Relationship with the Catholic Church
  Adviser: Lawrence Reardon

MUB, Room 336

**International Affairs—The Role of the Entrepreneur Around the World**

Moderator: Lionel Ingram

- Patrick Cambiaso-Helfer
  International Affairs and Business Administration
  *A History of Angel Groups and Their Impact on European Public Policy*  
  Adviser: Lawrence Reardon

- Wegene Wells-Bogue
  International Affairs and Political Science
  *The State of Ethnic Federalism in Ethiopia*  
  Adviser: Lawrence Reardon

- Jenna Zullo
  International Affairs and Psychology
  *The Decline of Nationalism in France*  
  Adviser: Lawrence Reardon

MUB, Room 321

**Multidisciplinary Session 5**

Moderator: Sharyn Potter

- Allison Collropy
  Linguistics

- The Future of Multilingualism in the United States
  Adviser: Mary Clark
Since September 2009, Chris Keeley has interned at the University Office of Sustainability, collecting data for the Sustainability Tracking, Assessment, and Rating System (STARS). The program measures campus sustainability at UNH in three overarching categories: education and research, operations, and planning, administration and engagement.

His URC project will show the results of his research, and demonstrate why UNH is considered a national leader in the area of sustainability.
Soon after he arrived to teach at UNH last year, Cord Whitaker saw how the URC could help bring literature alive for his students—and for audiences who attend their URC performance: Dramatic Innovations: Students Present Drama Based on Pre-1800 English Literary Classics.

This year, nearly 40 students are writing, directing, and performing four one-act plays for the April 23 event. They create the plays by combining themes from three major texts of the period. As they research the project, the students also discover how the authors drew on earlier works to inspire their own.

It’s not always easy performing in front of a live audience, but the process draws students into their research in more powerful ways, Whitaker says.

“Literature is a living, breathing thing, and students who don’t regularly perform get to inhabit that organism for a few moments during the URC,” Whitaker says. “It’s not only literature for which performance is important. Students in all disciplines learn the value of presenting their work with style, clarity, and class. As a teacher, it is my goal for students to realize that knowledge means very little unless it is shared, and shared well.”
Parents Association
Undergraduate Research Symposium

Oral Presentations, Session C

Friday, April 23
1:40–2:50 p.m.
Memorial Union Building

MUB, Room 237

Case Studies in the Rhetoric of Local Public Problems
Moderator: Michael Jackson

Lynette Boutin
Jessica Cockerham
Jessica LaCroix
Aaron West
Communication
Neglect as Strategy? The Problem of Graduate Student Housing at UNH
Adviser: Lawrence Prelli

Sabrina Clark
Hope Fortier
Camille Quarles
Kelley Stenberg
Communication
A Problem Without Remedy? Under-aged Drinking at UNH
Adviser: Lawrence Prelli

Dane Miller
John Shea
Simon Woods
Communication
Making the Best of a Bad Situation: Managing Conflict Over Business Disruptions in Portsmouth, New Hampshire
Adviser: Lawrence Prelli

MUB, Room 233

Chinese Economic and Military Expansion
Moderator: Sean Coughlin
Jeffrey Anderson
Geology
Income Inequality in China
Adviser: Lawrence Reardon

Jeffrey Brunelle
History and Political Science
People's Republic at Sea: The Growth of the Chinese Navy
Adviser: Lawrence Reardon

John Lennon
International Affairs and Spanish
China's Reasoning for Joining the Korean War
Adviser: Lawrence Reardon

Bryan Noonan
Justice Studies and Political Science
Causes of Economic Inequality in Communist China
Adviser: Lawrence Reardon

MUB, Room 336

Chinese Economic and Military Expansion
Moderator: Sean Coughlin
Jeffrey Anderson
Geology
Income Inequality in China
Adviser: Lawrence Reardon

Jeffrey Brunelle
History and Political Science
People's Republic at Sea: The Growth of the Chinese Navy
Adviser: Lawrence Reardon

John Lennon
International Affairs and Spanish
China's Reasoning for Joining the Korean War
Adviser: Lawrence Reardon

Bryan Noonan
Justice Studies and Political Science
Causes of Economic Inequality in Communist China
Adviser: Lawrence Reardon

MUB, Theatre I

Dramatic Innovations: Students Present Drama Based on English Literary Classics
Moderator: Cord Whitaker

Gianna Spadaro
Anthropology and International Affairs
Rebecca Cummings
Mickey Fisher
Cally Forsyth
Craig Hooker
Robert Jenkins
Catherine Kolnaski
Ju Lin
Amanda Pelchat
Funmi Oyekunle
Michaela Powers
Kyle VanEtten
Jessica Wong
English
Chloe Abu-Jaber
English and Justice Studies
Andrew Gilbert
Luke Bella-Spooner
Lauren Howland
Eliza Mackintosh
Max Tedford
Makisha Timothy  
English/Journalism

Connor Barry  
English/Journalism and Justice Studies

Emma Floyd  
English/Journalism and Sociology

Renee Poisson  
Romulo Valdez  
English Literature

Laci Bailey  
Jordan Ciaraldi  
Emmy Dube  
Risa Hoffman  
Michele Millers  
Eleni Papanikolau  
Jade Wilcox  
Gail Winsor  
English Teaching  
Tracey Hoagland  
English Teaching and Business Administration

Charles Arena  
General Biology

Rebecca Bennett  
Benjamin Boisvert  
Destiny Camire  
Nathan Mann  
Christopher Milmore  
Undeclared

Adviser: Cord Whitaker

MUB, Room 334

Feminist Political Theory

Moderator: Jing Huang

Tegiyi Birey  
Political Science and Women's Studies  
A Feminist Examination of French Immigration Laws  
Adviser: Marla Brettschneider

Tiffany Black  
Anthropology  
Ellen Gruenbaum's Feminist Political Theory: Defining a Non-Culturally Imperial Feminist Activism  
Adviser: Marla Brettschneider

Hilary Greene  
Women's Studies  
Abortion and Autonomy  
Adviser: Marla Brettschneider

David Jacobsen  
Political Science and Women's Studies  
Imperial Whore  
Adviser: Marla Brettschneider

Allison Rich  
Political Science and Sociology  
The Effect of Middle Class Values on Gender Expression and Sexual Orientation  
Adviser: Marla Brettschneider

Sarah McLeod-Warrick  
Political Science  
Zionist Extreme Ideologies: The West Bank Barrier and Regional Security  
Adviser: Alyynna Lyon

Chelsea Moyer  
International Affairs and Political Science  
The International Criminal Court and the United States  
Adviser: Alyynna Lyon

Francesca Prince  
Political Science  
Failed States: Causes, Effects, and Solutions  
Adviser: Alyynna Lyon

MUB, Room 302

Honors in Communication Session 2

Moderator: Danielle Pillet-Shore

Brianne Baity  
Communication  
Eating Cake: Does Social Media Provide Advertisers a Means to Eat Their Cake and Have It too?  
Adviser: Danielle Pillet-Shore

Alissa Mendes  
Communication  
Individual Deception Refigured in Relational Terms: A Critique of Traditional Views of Deception in the Social Science Field  
Adviser: John Lannamann

Kaitlyn Ramsay  
Communication  
Deconstructing the Dream: The Impact of Home Ownership Rhetorics in Relation to Race and Class  
Adviser: Danielle Pillet-Shore

Rachel Schlacter  
Communication  
Implications of Social Media as a Form of Interpersonal Communication  
Adviser: Danielle Pillet-Shore

MUB, Room 321

Ethnic and Political Violence in China

Moderator: Sarah Gormady

Shannon Bailey  
Political Science  
The Rise of Social Unrest in China  
Adviser: Lawrence Reardon

Thomas Lamb  
Political Science  
Zhou Enlai and Chinese Political Purges  
Adviser: Lawrence Reardon

Chelsea Moyer  
International Affairs and Political Science  
Root Causes of Ethnic Violence: Uighur Muslims in Xinjiang Province  
Adviser: Lawrence Reardon

MUB, Room 340

Global Governance and Political Threats to Security

Moderator: Emily Cole

Mary Elizabeth Clancy  
Political Science  
AIDS in the Developing World  
Adviser: Alyynna Lyon

Jacqueline Lewis  
Political Science  
Prospects for Peace: Student Perceptions of Transitional Justice in Post-Genocide Rwanda  
Adviser: Lawrence Reardon

Makisha Timothy  
English/Journalism

Connor Barry  
English/Journalism and Justice Studies

Emma Floyd  
English/Journalism and Sociology

Renee Poisson  
Romulo Valdez  
English Literature

Laci Bailey  
Jordan Ciaraldi  
Emmy Dube  
Risa Hoffman  
Michele Millers  
Eleni Papanikolau  
Jade Wilcox  
Gail Winsor  
English Teaching  
Tracey Hoagland  
English Teaching and Business Administration

Charles Arena  
General Biology

Rebecca Bennett  
Benjamin Boisvert  
Destiny Camire  
Nathan Mann  
Christopher Milmore  
Undeclared

Adviser: Cord Whitaker
Erin Thesing ’10
Anthropology

With the support of a Summer Undergraduate Research Fellowship, Erin Thesing conducted fieldwork with adolescent refugees in a New Hampshire high school in a small, ethnically homogeneous city. Using proven research methods, she studied how adolescent refugees negotiate their identities in the new culture.

Her URC project will also show how the refugees help create adaptive strategies within the school culture. Thesing’s research fills an important gap in the anthropological literature on refugee and immigrant education and social adjustment, the majority of which focuses on students in urban, multicultural schools and cities.

After graduation, she will teach at an elementary school in Philadelphia with Teach for America.
Corey Johnson ’11
Business Administration

Corey Johnson developed a tool in 2009 that helps small towns keep track of the energy they use and the related greenhouse gas emissions. With support from a Summer Undergraduate Research Fellowship, Johnson worked with eight communities last summer to gather utility data and create energy inventories—a key step in helping them to reduce energy bills and carbon pollution.

Johnson’s research was completed in collaboration with Carbon Solutions New England and Clean Air-Cool Planet.
MUB, Room 304

**Sustainability Session II**

Moderators: Sara Cleaves and Jason Whitney

Sibley Blum
Environmental Conservation Studies
Electronic Equipment Wiping and Disposal for the Sustainability Internship Program
Adviser: Jason Whitney

John Doyle
Environmental Conservation Studies
Sustainability Internship Program: Forest Service
Adviser: Jason Whitney

Sarah Jacobson
Nutritional Sciences and Ecogastronomy

Michelle Laffoon
Marketing

Hillary Thomas
Environmental Conservation Studies
Sustainable Food: Seacoast Eat Local Internship
Adviser: Sara-Zoe Patterson

Corey Johnson
Business Administration
Taking STOCC: Reducing Municipal Greenhouse Gas Emissions and Saving Taxpayer Dollars
Adviser: Cameron Wake

Ashley Obara
English and Business Administration
Sustainability Internship Program: Growing the Green Card
Adviser: Jason Whitney

MUB, Room 207

**The Politics of Sex and Change in America**

Moderator: Susan Siggelakis

Kaitlyn Dowling
Political Science
Yes We Can: The Rhetoric of Adaptive Leadership in Barack Obama’s Campaign to Change America
Adviser: Susan Siggelakis

Emma Duffy-Comparone
Political Science and English
Sex and the City: Puncturing Femininity in a Post-Feminist Climate
Adviser: Susan Siggelakis

Thomas Parisi
Political Science
Persuading and Entertaining the Nation: American Propaganda Films of World War II
Advisers: Delia Konzett and Susan Siggelakis

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**The Naked Arts—Creativity Exposed!**

**Act III**

**College of Health and Human Services Grimes Award Competition**

Friday, April 23
1–4 p.m.
Pettee Hall G-10

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

Information on participants will be available at this event.

**Honors English Undergraduate Research Conference**

Friday, April 23
1–5 p.m.
Hamilton Smith, Rooms 128/129

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.

Kristin Brodeur
English
How the University Press of New England is Adjusting to the Changing Publishing World
Adviser: Sarah Sherman

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**Melody Chapin**

Music
Discoveries of Brazilian Art Song
Adviser: Jenni Cook

**Allison Hadwen**

Theatre
Using Theatre to Depict What the Ugandan People have Endured
Adviser: David Richman

**Garrett Quinn**

English
Inspiration and the Process of Creating a Short Story: The Blue-Throated Macaw
Adviser: Thomas Payne

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**The Naked Arts—Creativity Exposed!**
Anne Dignard  
English Teaching  
Interdisciplinary Studies: Integrating English and Mathematics  
Adviser: Mary Clark

Heather Froehlich  
English and Linguistics  
Native and Adopted Prefixes in English Morphology: A Comprehensive Study of Locative Prefixes in English Word Formation  
Adviser: Rochelle Lieber

Erin Gormley  
English  
Assia Djebar: Writing Women & Death in French Algeria  
Adviser: Sandhya Shetty

David Jacobsen  
Political Science and Women's Studies  
Imperial Whore  
Adviser: Diane Freedman

Alexander Joy  
English and Philosophy  
American Existentialism: Comparative Study of Lovecraft and Camus  
Adviser: Marco Dorfsman

Cameron Kittle  
English  
How Our Reading Habits are Affected by Our Digital Nation  
Adviser: Lisa Miller

Kirsten Lindquist  
English and Environmental Conservation Studies  
Nature Writing in the Popular Media: Verlyn Klinkenborg and the Promise of Artful Environmentalism  
Adviser: Diane Freedman

Sean Myers  
English  
Shakespeare's Hamlet Re-Written from Claudius and Gertrude's Perspective  
Adviser: Thomas Payne

Sean Myers  
English  
Horses, Dragons, and Sexual Imagery in Edmund Spenser's Faerie Queene, Book I  
Adviser: Douglas Lanier

Lindsey Phelan  
English and Justice Studies  
Crime and Punishment in Harry Potter  
Adviser: James Krasner

Katie Samwell  
English and Art History  
A Small Place: Lithuania's Struggle Captured in Memoir  
Adviser: Sandhya Shetty

Kirstin Striker  
English  
Translating the Poetry of Hans Lodeizen from Dutch to English  
Adviser: Martin McKinsey

Brooke Clarkson  
Psychology and English  
Personality Perception Through Facebook Profile Pictures  
Adviser: Zorana Ivcevic

Angela Couse  
Psychology  
Children's Memory Talk about a Science Learning Event  
Adviser: Michelle Leichtman

Ashley Doukas (UNH McNair Scholar)  
Psychology  
Examining Episodic Memory Use on Science Exam Questions: A Think-Aloud Study  
Adviser: Michelle Leichtman

Perry Dripps  
Psychology  
“I’m Not Mad, I’m Just Hurt:” Why Relationship Commitment Reduces Antisocial Behavior Following Rejection  
Adviser: Edward Lemay

Brendan Everett  
Psychology  
Assessment of Training with vOICe Vision Technology Over Time  
Adviser: Andrew Leber

Jason Frazier  
Psychology  
Individual Differences Among Rule-Violating Adolescents  
Adviser: Ellen Cohn

Darci Jenkins  
Psychology and Justice Studies  
The Effect of Source Types on Children’s Source Monitoring  
Adviser: Michelle Leichtman

Michelle Kelly  
Psychology  
Culture and Autobiographical Memory  
Adviser: Zorana Ivcevic

Kaitlin Lounsbury  
Psychology  
The Role of Cell Phones in Internet-Facilitated Sex Crimes Against Youth: Findings from the Second National Juvenile Online Victimization Study (N-JOV2)  
Adviser: Kimberly Lema
**Philosophy Department Undergraduate Research Conference**

**Friday, April 23**  
4–8:30 p.m.  
Murkland Hall, Room G17

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.

**Christopher Cogswell**  
Chemical Engineering and Philosophy  
*Humor and Freedom*  
Advisers: Willem De Vries and David Hiley

**Griffen Fletcher**  
Mathematics  
*Morality in Modern Society*  
Adviser: Nickolas Smith

**Alexander Joy**  
English and Philosophy  
*Dialetthic Logic: A Contradiction in Terms?*  
Adviser: Paul McNamara

**Laura LaPlante**  
Philosophy and Economics  
*The Capabilities Approach and Public Education in New Hampshire*  
Adviser: David Hiley

**Jonathan Meadows**  
Philosophy and Humanities  
*Rule-governed Language*  
Adviser: Willem De Vries

**Amy Morgan**  
Psychology  
*The Effects of Hippocampal Lesions on Contextual Cuing in Pigeons*  
Adviser: Brett Gibson

**Courtney Stevens** (Winner of the 2010 Discovery Program Award for Outstanding Research on Health)  
Psychology  
*A Day Reconstruction Method Study of Mood Benefits from Exercise*  
Adviser: Rebecca Warner

**Bethany Wakeman**  
Psychology  
*Attitudes Toward Relational Aggression: Effects of Privacy and Internet Use*  
Adviser: Ellen Cohn

**Elizabeth Weber**  
Psychology  
*The Effects of Digit Ratio and Polychronicity on Task Switching*  
Adviser: Andrew Leber

**Matthew Wilkinson**  
Psychology  
*Planning Behavior in the Pigeon: Efficiency on Single and Round Trip Tasks*  
Adviser: Brett Gibson

**Megan Yee**  
Psychology  
*Do Ultrasonic Vocalizations During Swim Stress Predict Resistance to Behavioral Depression in Rats?*  
Adviser: Robert Drugan

**Conor Stokes**  
Philosophy  
*The Ethics of Tragedy*  
Adviser: Drew Christie

**Andrew Trudo**  
Philosophy  
*Nietzsche's Elusive Will to Power*  
Adviser: Willem De Vries

**Laura Truman**  
Philosophy  
*Reason, Freedom, and Faith: An Existential Study of Dostoevsky and Nietzsche*  
Adviser: Charlotte Witt

**Sarah Turner**  
Women's Studies  
*The Technological Embodiment of the Incarcerated Female*  
Advisers: Marla Brettschneider and Courtney Marshall

**Kelly Walsh**  
Philosophy and English  
*Modernity: Secularization and a Sense of the Moral Self*  
Adviser: David Hiley

**George Adams**  
Music  
*Study For Two Pianos*  
Adviser: Michael Annicchiarico

**William Baldoumas**  
Music  
*Undecet*  
Adviser: Michael Annicchiarico

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**Student Composers’ Concert**

**Friday, April 23**  
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.

**Megan Yee**  
Psychology  
*Do Ultrasonic Vocalizations During Swim Stress Predict Resistance to Behavioral Depression in Rats?*  
Adviser: Robert Drugan

**Courtney Stevens** (Winner of the 2010 Discovery Program Award for Outstanding Research on Health)  
Psychology  
*A Day Reconstruction Method Study of Mood Benefits from Exercise*  
Adviser: Rebecca Warner
Andrew Cote  
Music Education  
*A Movement for Winds and Percussion*  
Adviser: Michael Annicchiarico

Dalita Getzoyan  
Music Theory  
*Two Worlds Collide—A Flute and Piano Composition*  
Advisers: Michael Annicchiarico and Christopher Kies

Jeffrey Heim  
Music Theory  
*Suite for Trombone and Orchestra*  
Adviser: Michael Annicchiarico

Lucas Miller  
Music Education  
*Brass Quintet #1*  
Adviser: Christopher Kies

Zachary Onett  
Music Theory  
*Program for Keyboard*  
Adviser: Christopher Kies

David Orr  
Performance and Music Theory  
*A Hero’s Tale*  
Adviser: Michael Annicchiarico

Kelsey Parrillo  
Music Education  
*Sonata in F Major*  
Adviser: Michael Annicchiarico

Benjamin Tibbetts  
Music Theory  
“Stopping by Woods on a Snowy Evening”  
Adviser: Christopher Kies

Valerie Schoepfer  
Environmental Science: Soil and Watershed Management  
*Leaf Leaching in Tropical and Temperate Ecosystems*  
Advisers: Gretchen Gettel and William McDowell

Grace Smarsh  
Zoology  
*Patterns of Visitation and Animal Use of Termite Mounds*  
Adviser: Michelle Scott

Paula Teichholtz  
Marine and Freshwater Biology  
*Recruitment Preferences of Tunicates Settling onto Blue Mussel Shells*  
Adviser: Larry Harris

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19th Annual COLSA Undergraduate Research Conference

Student presentations at the Annual COLSA URC are based on research conducted in any of the college’s departments and run the full gamut of research found in the college, from field studies to developmental to molecular biology and genomics studies. A number of studies are collaborative efforts between work here at UNH and work carried out in foreign countries.

Oral Presentations

**Saturday, April 24**  
8:45–10:30 p.m.  
New England Center

- **Allisan Aquilina-Beck**  
  (graduate student)  
  **Scott Kavanaugh**  
  Biochemistry

- **Caryn MacDonald**  
  Molecular, Cellular and Developmental Biology  
  *Functional Studies with Two Novel Type-II GnRH Receptors in the Sea Lamprey, a Basal Vertebrate*  
  Adviser: Stacia Sower

- **Scott Hurley**  
  Environmental Science: Ecosystems  
  *Understanding a Forest’s Nitrogen Status through Mushroom Collection: Can It Be Done?*  
  Adviser: Erik Hobbie

- **Rebecca Riding**  
  Molecular, Cellular and Developmental Biology

- **Megan Thompson**  
  (graduate student)  
  Plant Biology  
  *Detecting Interaction Between PP2A C Subunit Genes and PP2A-Interacting Proteins in Arabidopsis thaliana*  
  Adviser: Estelle Hrabak

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19th Annual COLSA Undergraduate Research Conference

Poster Presentations

**Saturday, April 24**  
10:30 a.m.–Noon  
New England Center

- **Usaila Ahmad**  
  Biochemistry

- **Matthew MacKenzie**  
  Molecular, Cellular and Developmental Biology  
  *The Invasiveness of Grateloupia turuturu*  
  Adviser: Anita Klein

- **Noel Alaka**  
  Molecular, Cellular and Developmental Biology  
  *The Effect of Temperature on the Identification of Photorhabdus asymbiotica Mutants Defective in Motility or Altered Surface Properties*  
  Adviser: Louis Tisa
Caryn MacDonald ’10
Molecular, Cellular, and Developmental Biology

Caryn MacDonald is researching the hormones of sea lampreys, and a key hormone receptor involved in cellular function.

The eel-like fish make ideal research subjects because their hormone systems share similarities with those in higher vertebrates, including humans.

“Hormones are interesting, because almost every process that goes on in your body is somehow controlled by hormones,” says MacDonald, who received a grant last year to pursue her research in Sweden.

Patrick Benoit
Molecular, Cellular and Developmental Biology
The Effects of Pigment Dispersing Hormone on the Motor Programs Expressed by the Isolated Ventral Nerve Cord of Limulus polyphemus
Adviser: Winsor Watson

Trevor Bland
Biochemistry
How General Chemistry Students Perceive Their Ability and Exam Performance
Adviser: Christopher Bauer

Kristopher Block
Wildlife Ecology
Ecology and Behavior of Nuisance Black Bears in New Hampshire
Adviser: Peter Pekins

Nathan Boire
Biochemistry
Nuclear Factor Kappa Beta and Atherosclerosis
Adviser: Thomas Foxall

Shana Bouvier
Microbiology
Identifying Genetic Tools for Novel Stone-Dwelling Actinobacteria
Adviser: Louis Tisa

Kirsten Bruell
Molecular, Cellular and Developmental Biology

Megan Thompson (graduate student)
Plant Biology
Gravitropism and Auxin Distribution is Delayed in Roots of a Protein Phosphatase 2A Mutant of Arabidopsis thaliana
Adviser: Estelle Hrabak

Hannah Bullock
Microbiology
Biological Control: Efficiency of Entomopathogenic Nematodes Retaining Photorhabdus temperata Mutants
Adviser: Louis Tisa
John Greene ’10

Environmental Conservation Studies

John Greene is presenting twice at this year’s URC. First, he’ll detail his research as an intern with the UNH Sustainability Internship Program.

Next, he’ll outline his work in Brussels, Belgium last summer, where he studied the European Union’s approach to reducing greenhouse gas emissions. His overseas work was supported with a Summer Undergraduate Research Fellowship. Find out how he developed recommendations for a cap-and-trade system to curb carbon pollution in our country.

Audra Chaput
Ecology, Evolution and Behavior
Courtship or Combat? How Male Siamese Fighting Fish Communicate in Mixed-Sex Social Environments and the Effect of Nest Possession on Their Display Behavior
Adviser: Michelle Scott

Lindsay Chase
Animal Sciences: Pre-veterinary Medicine
Effect of Kelp on Growth of Dairy Calves
Advisers: Andre Brito and Nancy Whitehouse

Alexandra Contosta (graduate student)
Brian Godbois
Environmental Science: Soil and Watershed Management
The Effects of Soil Warming and Nitrogen Deposition on Soil Water Quality
Adviser: Serita Frey

Ian Cormier
Microbiology
Combining Chaotropic and Nitric Oxide Compounds for Optimal Release of Bacteria from Produce
Adviser: Stephen Torosian

Amanda Craig
Molly Hunt
Animal Sciences: Pre-veterinary Medicine and Wildlife Ecology

Rachel Holt
Gina Soule

Samantha Werner
Animal Sciences: Pre-veterinary Medicine
Skeleton Articulation
Adviser: Richard French

Michelle Crupi
Animal Sciences: Pre-veterinary Medicine
What is Your Diagnosis?
Adviser: Richard French

Alexander Cubberley
Biochemistry
p53 and the Microtubule Array in HCT116 Colorectal Cancer Cells
Adviser: Charles Walker

Melanie D’Andrea
Jordan Morelli
General Biology
Identifying Palmitoyltransferase Mutants in Arabidopsis thaliana
Adviser: Estelle Hrabak

Natalie Delfosse
Nutritional Sciences
Chronic Disease Risk Factors Are Impacted by Nutrition Education in College-Aged Adults
Adviser: Jesse Morrell

Christopher Dorich
Environmental Science: Ecosystems
How Do Albedo and Nitrogen Vary with Stand Age, Treatment, and Site Status?
Advisers: Lucie Lepine and Scott Ollinger

Jeffrey Dvorak
Environmental Science: Ecosystems
The Effect of Invasive Mammal Exclusion on Terrestrial Insect Communities in New Zealand
Adviser: Ria Brejaart

Crystal Ellis (graduate student)
Microbiology

Rachel Staples
Medical Laboratory Science
Evolvability of Burkholderia cenocepa Biofilm Specialists
Adviser: Vaughn Cooper

Stacy Farina
Marine and Freshwater Biology
An Examination of the Nerves Innervating the Lateral Line of Deep-Sea and Shallow-Water Anglerfish
Advisers: William Howell and Christopher Kenaley
David Fournier
Computer Science
Intra-Genomic Diversity in the Ribosomal Repeat Arrays of Nematodes
Advisers: R. Daniel Bergeron and W. Kelley Thomas

Kristin Garabedian
Michelle Walsh (graduate student)
Marine and Freshwater Biology
Development of the Digestive Tract in Juvenile Winter Flounder, Pseudopleuronectes americanus
Adviser: William Howell

Jason Goldstein (graduate student)
Kirby Johnson
Zoology
Developing Two Lab-Based Methods for Assessing Early-Stage Egg Fertilization in American Lobster
Adviser: Winsor Watson

John Greene
Environmental Conservation Studies
European Union Carbon Cap and Trade: Lessons and Applications for an American Market
Adviser: Stacy VanDeveer

Danielle Haddad
Environmental Science: Ecosystems
Modeling Atmospheric Deposition Across the Northeastern U.S. and its Potential Effects on Forest Albedo
Adviser: Scott Ollinger

Ian Hanley
Wildlife Ecology
A Comparison of Habitat Features of New England Cottontails and Snowshoe Hares
Adviser: John Litvaitis

Norman Hassell III
Microbiology
Determining the Role of Siderophore in Vibrio-Eupryymna Symbiosis: Iron Acquisition vs. Oxidative Stress
Adviser: Cheryl Whistler

Maureen Healey
Paige Mooney
Marine and Freshwater Biology
The Deadliest Catch: Population Density and Characteristic Study of the Invasive Species, Carcinus maenas (Green Crab)
Adviser: Elizabeth Fairchild

Michele Heller
Marine and Freshwater Biology
Manual Classification of Atlantic Juvenile Blue Fin Tuna to Characterize Schooling Formation Metrics
Adviser: Thomas Weber

Haeleigh Hyatt
Zoology
Orchid Propagation: Seed Germination in Cattleya and Keiki Induction in Phalaenopsis
Adviser: Estelle Hrabak

Erik Janicki (graduate student)
Brandy Michaels (graduate student)
Microbiology
Katherine Pereira
Biochemistry
Developing Biological Control Agents—The Role of Biofilm in Photorhabdus
Adviser: Louis Tisa

Katie Jennings
General Biology
Studies of Tissue Dynamics During the Fast Phase of the Venus Flytrap Closure
Adviser: Wayne Fagerberg

Jenny Jing
International Affairs and Biochemistry
Defining the Relationship Between Tetraploidy and Leaf Morphology in Transgenic Strawberry Plants
Advisers: Thomas Davis and Qian Zhang

Kathleen Keating
Molecular, Cellular and Developmental Biology
Lin Shao (graduate student)
Plant Biology
Regulation of Polyamine Gene Expression in Arabidopsis italiana
Adviser: Subhash Minocha

Amanda Kuzmick
General Biology
Rajitlak Majumdar (graduate student)
Plant Biology
Polyamine Biosynthesis and the Effect of Stress in Plants
Adviser: Subhash Minocha

Amy Lamb
Environmental Science: Ecosystems
Compost as an On-Farm Resource: Conditions for Optimizing Heat Generation and Greenhouse Gas Emissions
Adviser: John Aber

Katherine Lantz
Medical Laboratory Science
Inexpensive Production of Enzymes For Use in Enzyme Replacement Therapy: Using Tobacco as a Bioreactor
Adviser: Subhash Minocha

Samantha Lee (UNH McNair Scholar)
Zoology
The Degree of Impact that Changes in Temperature and Salinity Have on Lobsters
Adviser: Winsor Watson

Andre Littlefield
Biochemistry
Understanding Adipocyte-Mediated Angiogenesis
Adviser: Deena Small

Caryn MacDonald
Molecular, Cellular and Developmental Biology
Evolutionary Studies of the Neuropeptide Y System in Vertebrates
Adviser: Stacia Sower

Ben Marcek
Marine and Freshwater Biology
Mangrove Pneumatophores as Ecosystem Engineers and Their Effect on the Retention of Hormosira banksii and Recruitment of Associated Fauna
Advisers: Charles Walker, Paul Gribben (University of Technology, Sydney, Australia), and Jeb Byers (University of Georgia)

Aymin Mediouni
Michael O’Hara, Jr
Benjamin Seiler
Microbiology
Assessing Methods to Inactivate DNA Molecules
Advisers: Aaron Margolin and Stephen Torosian
Rachel Mixon  
General Biology and Classics  
Fungal Evolution and Nutritional Ecology of the Hygrophoraceae Clade Using Stable Isotope Analysis  
Adviser: Erik Hobbie

Eric O’Keefe  
Environmental Conservation Studies  
Patterns of Regionally Based Governance in Both Pre-Colonial and Contemporary Times in the Great Lakes Region  
Adviser: Mimi Becker

Daniel Perrinez  
Marine and Freshwater Biology  
Lipid Profile of Micro-Algae Used in Biodiesel Production  
Adviser: Ihab Farag

Valerie Schoepfer  
Environmental Science: Soil and Watershed Management  
Leaf Leaching as a Source of Carbon and Nutrients in Tropical Streams  
Adviser: William McDowell

Kelsey Silfvenius  
Environmental and Resource Economics  
Under the White, Isn’t So Green: How a Vulnerable Ski Industry is Taking Steps Towards Sustainability  
Adviser: John Halstead

Joshua Smith  
General Biology  
Growth and Microscopy of Swine Endothelial Cells on Microcarrier Beads  
Adviser: Thomas Foxall

Jaclyn Sullivan  
Molecular, Cellular and Developmental Biology  
Reactivating Wild-type p53 in Animal Cancer  
Adviser: Charles Walker

Casey Tobin  
Molecular, Cellular and Developmental Biology  
Localization of Neurons Containing the Period Clock Protein (PER) and the Pigment-Dispersing Hormone (PDH) in the Brain of the American Horseshoe Crab, Limulus polyphemus  
Adviser: Winsor Watson

Charles Traverse  
Microbiology  
Evolutionary Genetics of Biofilm Adaptation and Diversification in Burkholderia cenocepacia  
Adviser: Vaughn Cooper

Anthony Troiano, Jr.  
Microbiology and Classics  
Adaptive Mutations for Life in Biofilms in an Opportunistic Pathogen  
Adviser: Vaughn Cooper

Anna Tyzik  
Medical Laboratory Science  
A Killer in the Water? Environmental Vibrio cholerae Confirmed in the Great Bay Estuary  
Advisers: Vaughn Cooper, Steve Jones, Brian Schuster (graduate student), and Cheryl Whistler

Elizabeth Willey  
Environmental Science: Ecosystems  
The Effects of Forest Fragmentation on the Abundance and Body Condition of the Red Backed Salamander (Plethodon cinereus)  
Advisers: Kimberly Babbitt and Daniel Hocking

Evelyn Yuen  
Nutritional Sciences  
Physical Activity and Bone Health of College Students  
Adviser: Jesse Morrell

Charles Traverse  
Microbiology  
Evolutionary Genetics of Biofilm Adaptation and Diversification in Burkholderia cenocepacia  
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Evelyn Yuen  
Nutritional Sciences  
Physical Activity and Bone Health of College Students  
Adviser: Jesse Morrell

Chemistry Department Poster Exhibition

Friday, May 7  
3–4:30 p.m.  
Parsons Hall, Iddles Wing

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.

Jay Agarwal  
Chemistry  
On the Role of Sacrificial Donors in the Catalytic Reduction of CO2 by Ru(II)-Re(I) Supramolecular Complexes  
Advisers: Gonghu Li and Howard Mayne

Brett Bauer II  
Chemistry  
XPS Analysis of Renaissance-Era Ceramics and Identification of Paint Pigments  
Adviser: Arthur Greenberg

Nicholas Bencivenga  
Chemistry  
Synthesis of Novel Polymerizable Ligands Providing -1 to 0 and +1 to +2 Charge Transitions in a Poly-NIPA Polymer System  
Adviser: Roy Planalp

Samantha Biron  
Chemistry  
Fractionation and Quantitative Analysis of Specific Isolated Mushroom Components for Stable Isotopic Tracing Methods  
Adviser: Erik Hobbie

Michelle Kass  
Chemistry  
Gas Chromatograph Analysis of Trace Gas Samples from Barrow, Alaska  
Advisers: Howard Mayne and Barkley Sive

Jordan Reddel  
Chemistry  
Method Development for the Determination of Stability Constants for Novel Chelating Ligands with Various Metal Cations  
Advisers: Roy Planalp and W. Rudolf Seitz
Whittemore School of Business and Economics
Paul J. Holloway Prize

University-wide
Innovation-to-Market
Competition Championship
Round

Wednesday, May 12
1–6 p.m.
Holloway Commons

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.

Information on participation will be available at this event.

Gayathri Sridhar
Chemistry
A Study of Zn(II) Ternary Complexes with Cross-bridged Cyclen
Adviser: Edward Wong

Nathan Stein
Chemistry
Design, Synthesis, and Characterization of a Persistent Nonacene Derivative
Adviser: Glen Miller

Ryan Sylvia
Chemistry
Investigating Effects of Co-Monomers and Reaction Conditions on the Lower Critical Solution Temperature (LCST)
Adviser: W. Rudolf Seitz
The Undergraduate Research Conference (URC) distributed thirty-six cash awards and sixteen tuition scholarships to students for outstanding presentations at the 2009 URC.

Cash awards totaled $6,700, and tuition scholarships totaled $10,000. Sponsors included the following University offices and departments: The Parents Association, the Office of the Vice President for Student and Academic Services, the Institute for the Study of Earth, Oceans, and Space, the New Hampshire Space Grant Consortium, the College of Engineering and Physical Sciences, the Environmental Research Group, the College of Life Sciences and Agriculture, the College of Engineering and Physical Sciences Alumni Association, the Center for International Education, the University of New Hampshire-Manchester, and Phi Beta Kappa Society.

Go to the URC Web site for a full list of students, their major and advisor(s) along with links to their award-winning presentations:

www.unh.edu/urc/2009/awards.html

The following presenters received awards of excellence:

Timothy April ’09
Dylan Fransway ’09
Jesse Taylor ’09
Home Power Monitoring

David Bornstein ’09
The Loss of the Breton Language

Matthew Borowski ’09
Carin Campbell ’09
Michael DeGaetano ’09
David Garneau ’09
Benjamin Lewis ’09
Philippe Lord ’09
Keith Matthews ’09
Eric McKenzie ’09
Kurt Raisanen ’09
Brendan Rickard ’09
Jeremy Seiferth ’09
Derek Smith ’09
Joshua Spaulding ’09
Kyle Tierney ’09
Formula SAE Car

Brianna Brothers ’10
Steven Cole ’10
Harry Dodson ’11
Building a Database Application System to Manage Donations for the YWCA of Manchester

Anna Bruning ’09
Euskal Herria: A Filmic Exploration of Basque Identity and Culture

Diana Chiang ’09
Successful Measures of Peacekeeping: Does Peacekeeping Work?

Claire Churchill ’09
Jules Simon: sans colère et sans amertume

Erica Clemens ’09
SASS in the School System

Samantha Costa ’09
Sexual Harassment and Sexual Assault Protocol Project

Jessica Dennis ’09
How Tourism Changed Spain’s Economy

Stacy Farina ’10
Winter Flounder Stock Enhancement: Examining the Onset of Wild Weaning in Pellet-Reared Fish

Colleen Flaherty ’09
Poverty and Democracy: Peru Revisited

Marie Gakuba ’09
Never Again: A Promise Yet to be Fulfilled

Sarah Gormady ’09
The Carnal Economy: Sex for Sale on the Global Marketplace

Lauren Gurschick ’09
A Descriptive Study of Team-Based Well-Child Care in the Netherlands

Sauwai Hung ’09
Somatic Growth of Juvenile Green Sea Urchins Fed Artificial Feeds of Varying Nutritional Composition

Katrina Ingraham ’09
A Life Between: Reflections of Immigrant Culture in Modern German Cinema

Sheila Jarnes ’10
The Secret Lives of Roses

Corey Johnson ’11
Sustainability—Small Town Carbon Calculator

Olivia Karpinski ’09
Pre-Participation Athletic Screening Forms in New England Colleges

Allison Krause ’09
Political Balance: Partisan Politics in the Spanish and Italian Transition to Democracy

Julie Langevin ’10
A Study of Speech Perception: The Psychological Reality of the Obligatory Contour Principle
Jacqueline Lewis ’10
Anticipating Genocide: The Case of Rwanda

Jennifer McArdle ’09
Why Do Militant Movements Renounce Their Paramilitary Wings?

Brian McKenney ’09
Corporate Image Making through Pseudo-Communication: The Case of the New Hampshire Beer Distributors and Dover’s Youth to Youth Student Advocacy Group

Andrew McKernan ’09
Christ or Lenin: To Whom Should One Construct a Monument?

Aimee Milliken ’09
The Experiences of Nurses Using Rapid Response Teams

Katharine Mooney ’09
That’s What He Said: Expanding Education Around Men’s Sexual Decision Making

Stephen Morgan ’09
Soil Consistency Limits: The Portable Liquid Limit Device

Johanna Murphy December ’08
Holy Oil and Water: The Economics of a Theocratic Nation

Raymond Murphy ’10
Working Class Stiffs (film)

Jared Murray ’09
Median Polish Algorithm for Automated Anomaly Detection in Sensor Networks

Morgan O’Neill ’09
Air-Sea Carbon Flux During Hurricanes

Morgan O’Neill ’09
Precision Pointing in the Sky for IBEX Interstellar Flow Observations-Use of the Moon with the IBEX-Lo Star Sensor

Catherine Plante ’12
Volunteer Best Practices

Elizabeth Reny ’09
The Rhetoric of Retail: Understanding the Function of Retail Therapy

Heather Ridge ’09
Fair Trade: Small-Scale Coffee Farmers in Costa Rica

Brittany Rittenberry ’09
Human Trafficking: A Thriving Black Market Service

Cem Savoglu ’09
The Cyprus Problem and Turkey’s Accession to the European Union

Alex Scarelli ’10
Art Show (screenplay)

Melissa Schilke ’10
Procrastination Study on Stress Levels

Valerie Schoepfer ’10
Leaf Leaching as a Source of Carbon and Nutrients in Tropical Streams

Kathryn Shriven ’09
Xenophobia and the Plight of Spain’s Immigrants

Charlotte Todd ’09
UNH-S.T.A.R.S. Sustainability Tracking Assessment and Rating System

Calvin Vaillancourt ’09
College Outdoor Orientation Program Sustainability

Vassili Vorotnik ’09
Enzymatic Transformation of a Natural Antioxidant

Eric Wind ’10
Thinking About Congress
Committed to Undergraduate Research

Engagement in research: For those students who get involved, it’s the defining factor of a UNH undergraduate education. And it is exactly what you will see at this week’s URC. The conference is an annual celebration of the remarkable research and learning between motivated undergraduates and active faculty researchers here at UNH.

This student-faculty collaboration is the backbone of the UNH research experience. It begins in the classroom with research-intensive coursework, but exists everywhere across campus and beyond. Look around and you’ll find undergraduates in faculty labs, teaming up with their teachers to find solutions that benefit society. You’ll see them in UNH’s many living labs such as the greenhouses, the farms, and the Child Study and Development Center; or at one of more than 40 centers and institutes dedicated to studying a wide range of issues, where undergraduates conduct research alongside experts in their fields. In UNH theatres, studios, and recital halls, our creative arts students explore the intellectual processes behind their works.

Nourishing these undergraduate-faculty relationships is UNH’s Hamel Center for Undergraduate Research, which gives students the opportunity to make research and creative explorations a more formal part of their academic experience. Each semester, dozens of students from varied academic disciplines apply for grants and fellowships from the center’s Undergraduate and International Research Opportunities Programs (UROP and IROP). The funds enable them to embark on collaborative research projects with faculty mentors, and to learn the key elements of any research project—from proposal and budget to research and presentation of results to peers. Many of the students presenting here this week conducted their research using UROP and IROP grants.

The McNair Graduate Opportunity Program also fosters student-faculty collaboration. As a graduate school preparation program, McNair includes an intensive research component. Students may design a research project, receive funds to implement the project, take a research methods course, participate in writing skills workshops, and have the opportunity to present their findings at the UNH McNair Program Summer Research Symposium, among other activities.

In addition, the Research and Discover Program offers a series of two summer internships to eligible students—the first summer at UNH, the second at NASA Goddard Space Flight Center. Research and Discover interns work alongside environmental scientists on the groundbreaking discoveries underway at the UNH Institute for the Study of Earth, Oceans, and Space, such as investigating the effects of human activities on the Earth, including the causes and effects of global climate change and deforestation; studying dynamic processes in the Earth, oceans, and atmosphere using remote sensing, GIS, computer models, and other state-of-the-art tools; and exploring chemical, physical, and biological oceanography.

This direct participation in meaningful research is one of the unique characteristics of a UNH education, where students, together with faculty, push back the frontiers of knowledge.

How to get involved in undergraduate research at UNH:

• talk to a favorite professor, faculty adviser, or teaching assistant;
• visit the UNH Hamel Center for Undergraduate Research, which sponsors student research projects at home and abroad;
• pay attention to department bulletin boards and Web sites, which often post job openings in UNH labs or departments where students can work on actual, ongoing research projects;
• take a research-intensive course, such as INCO 590 “Student Research Experience.”

Inquiry journal of undergraduate research

The URC is but one means for students to share their findings. Some of the works you see here today might become the basis of a University honors or master’s thesis; others may find their way to national conferences and professional meetings where UNH undergraduates present their work to future colleagues and peers; still others may appear in Inquiry, UNH’s online journal of undergraduate research. Published annually, Inquiry features the research articles, briefs, and commentaries of undergraduates.

Read more at www.unh.edu/inquiryjournal

Links to research opportunities

Centers and Institutes at UNH www.unh.edu/research/

Center for International Education www.unh.edu/cie

Hamel Center for Undergraduate Research www.unh.edu/undergrad-research

McNair Graduate Opportunity Program www.unh.edu/mcnair

Engagement www.unh.edu/engagement

Research and Discover Summer Internship Program in Earth Sciences www.eos.sr.unh.edu/ResearchAndDiscover/

University Honors Program www.unh.edu/honors-program
Acknowledgements

The UNH Undergraduate Research Conference has grown to be 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 2010 happen.

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Parents Association
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The University Writing Programs
UNH Advancement
UNH Dining Services
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UNH Printing Services
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Julie Williams, Senior Vice Provost for Engagement and Academic Outreach

2010 URC Event Coordinators
Michael Annicchiario, Student Composers’ Concert
Tim Barretto and Kate Hanson, Thompson School of Applied Sciences, Community Leadership Program
Janice Chadwick, Psychology Department George M. Haselrud URC
Lynne Cooper and Cameron Wake, Parents Association Undergraduate Research Symposium (PAURS)
Marianne Fortescue, UNH Office of Community Service Partnerships
Rob Haskins, The Naked Arts – Creativity Exposed!
Estelle Hrabak, 19th Annual COLSA URC
Peter Masucci, Michael Merenda, and Cynthia Nizzari-McClain, WSBE URC and WSBE Paul J. holloway Prize University-wide Innovation-to-Market Poster Session & Championship Round Competition
Cari Moorhead and graduate assistants Marco Thompson and Miranda Fillebrown, Graduate Research Conference
Dan Reagan and Ellen Ruggles, UNH Manchester Undergraduate Research Conferences
Cindi Rohwer, Chemistry Department Poster Exhibition
Lucy Salyer, History Department URC
Astrida Schaeffer and Catherine Mazur, Senior B.A., B.F.A., and M.F.A. Exhibition Preview Reception
Sarah Sherman, Honors English Undergraduate Research Conference
Ruth Varner and Debra Williams, Interdisciplinary Science and Engineering (ISE) Symposium
Neil Vroman, College of Health and Human Services (CHHS) Grimes Award Competition
Kelly Walsh, Philosophy Department URC
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“I participated in one of the largest URCs. It was amazing! Now I can use this experience to boost my résumé and get a leg up when applying for jobs.”

“Seeing the other students’ research and how enthusiastic they were about a wide variety of topics inspired me.”

“It allowed us to feel like real scientists and to see how our small research projects really are an important contribution to the research community.”