



ORONO, MAINE • AY 2015 – 16 • SPRING 2016

Program Dates & Deadlines

Program	Dates
<u>2016 Student Research Symposium</u> Abstracts Submission (Firm Deadline)	3/4/16 at 4:00 pm
2016 Student Research Symposium Acceptance Notifications	3/21/16
2016 Summer Fellowship Proposals Submission (Firm Deadline)	3/25/16 at 4:00 pm
2016 Student Research Symposium Event Date	4/27/16 from 8am-5pm
2016 Summer Fellowship Acceptance Notifications announced at event	Location: Cross Insurance Center, Bangor, ME

2016 Student Research Symposium*

The Center for Undergraduate Research invites the submission of undergraduate research and creative activity projects from ALL disciplines to be presented in a symposium involving poster sessions, oral presentations and performances/exhibits. Submissions must be in the form of an abstract describing the focus, method or process, and outcomes of the project. Entries must be authored by one or more undergraduate students from the University of Maine and be accompanied by the endorsement of a faculty mentor. All email correspondences will be sent to the first student author listed in the submission form.

Call for Abstracts Deadline: 3/4/16 at 4:00 PM
 Acceptance notifications will be sent via email on 3/21/16.
 Event Date & Time: Tuesday, 4/27/16 - 8:00am-5:00pm
 Event Location: Cross Insurance Center, Grand Ballroom. Bangor, ME

To Apply: www.tinyurl.com/CUGR2016

For further information and questions visit cugr.umaine.edu
 contact Alexandria Jesiolowski, CUGR Admin Assistant. cugr@umaine.edu

* Previously known as the CUGR Showcase. Refer to page 2 for more information

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The 2016 Student Research Symposium will be hosted at the Cross Insurance Center, Bangor, ME, 04401



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2016 UMaine Graduate & Undergraduate Student Research Symposium

Jena Jones, UMaine undergraduate studying Human Dimensions of Climate Change. She is actively engaged in UG research and is a CUGR Research Scholar. As a 1st year, Jones met with Cynthia Isenhour and began her journey engaging in UG research.

Jones' Message to other UG students:

"Prior to meeting with CCI faculty and talking to Dr. Isenhour about research, I had no idea that this opportunity even existed to students. My advice to other undergraduates who might be interested in UGR is to be your own advocate for opportunity. Ask questions and be inquisitive about your passions as a student, UMaine offers a world of experiences outside of learning solely in a classroom. Take advantage of as many of those as possible.

After completing my CUGR Fellowship, I have since become involved with two other projects. I'm currently working as a research assistant to Dr. Isenhour on a project designed to evaluate the quality of the reuse economy in Maine as well as a separate project initiated by the Senator George J. Mitchell Center on materials management and policy in Maine. I have the opportunity to work in a multi-disciplinary environment on research that directly impacts the communities that I work and live in. I'm engaging stakeholders in those communities and forging working relationships with potential future colleagues and employers. I still plan on attending the Climate Change Institute to complete my masters and would love to take my research experience as an undergraduate into graduate school as well as into my post-graduate career. "

In past years, the Graduate Student Government (GSG) and the Center for Undergraduate Research (CUGR) have hosted independent academic student research events known as the Graduate Academic Exposition and the CUGR Academic & Creative Activities Showcase. This year the GSG and CUGR are working together to organize a joint event called UMaine Graduate and Undergraduate Student Research Symposium. The event will consist of student research presentations that will be judged by faculty, alumni, and industry professionals. Within their field of expertise, judges will review and score assigned undergraduate and graduate student research presentations in the form of a poster, exhibit, or oral presentation. This event will also act as a forum for research centers and future employers to market their needs to students, as well as offer a means for professional development.

Due to the large scale of hosting a joint event such as this, the planning committee has decided to host the event at the Cross Insurance Center in Bangor. Holding the event in a large public venue will increase the visibility and accessibility of the research conducted by students at UMaine and will allow students to converse and share ideas with legislators, professionals and community leaders. It will also provide an opportunity for students to interact with those that stand to directly benefit from their research findings. To facilitate this, representatives from State government, industry, research concerns, and local community groups have been invited to attend and engage with UMaine student presenters, which will ultimately increase the publicity of student research at UMaine.

When: Wednesday April 27th, 2016 8AM-5PM

Where: Cross Insurance Center: Ballroom, Bangor Maine

For questions or more information please contact, Alexandria Jesiolowski, UM.SYMPOSIUM@MAINE.EDU or call 581-3583



Jena Jones (left), Cynthia Isenhour (right)

Jena Jones Class 2017

"The opportunities afforded to me as an undergraduate researcher have only enhanced my experience as a student. I have working knowledge and an understanding of research that would have been difficult to obtain in a classroom. I've gained a sense of confidence and heightened interpersonal skills. Most importantly, though, I've become more curious and I ask many more questions about my academic passions than I did before I became involved in UGR".



Students, faculty and alumni are encouraged to submit information by contacting Alexandria Jesiolowski, 207-581-3583, CUGR@maine.edu

visit us online at cugr.umaine.edu

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2016 Undergraduate Research and Creative Activities Summer Fellowships

Call For Proposals

The Center for Undergraduate Research (CUGR) is pleased to announce the Research and Creative Activities Summer fellowship program to support undergraduate student involvement in faculty supervised research. Several \$3000 Fellowships will be awarded for the 2016 summer semester on a competitive basis; the competition is open to all UMaine undergraduate students from all majors. Each fellowship provides financial support for one student to conduct faculty-mentored research. The CUGR Advisory Committee will review research and creative activities proposals for clarity of objectives, importance to the field, proposed approach, appropriateness of the budget, and indication of the project feasibility.

To Apply: CUGR.UMAINE.EDU
DEADLINE - 3/25/16, 4:00 PM

Eligibility Criteria:

1. Any undergraduate student currently enrolled in a degree program at the University of Maine may submit a proposal in consultation with a faculty mentor. Preference will be given to students graduating in or after May 2016.
2. Applicants will describe the research, placing it in the context of scholarly activities, while presenting it in such a way that it is understandable to the reviewers from outside of the applicant's field.
3. Recipients must submit a report including technical and financial data by 9/15/16 and are expected to present the product of their research at the 8th Annual CUGR Showcase in April 2017.

Responsible and Ethical Conduct of Research

Overview:

The National Institutes of Health (NIH) define 'Responsible and Ethical Conduct of Research' (RCR) as, "the practice of scientific investigation with integrity. . . [involving] the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research."

Responsible & Ethical Research Shared values

- ☑ Honesty – conveying information truthfully and honoring commitments,
- ☑ Accuracy – reporting findings precisely and taking care to avoid errors,
- ☑ Efficiency – using resources wisely and avoiding waste, and
- ☑ Objectivity – letting the facts speak for themselves; avoiding improper bias.

For more information: umaine.edu/orsp/compliance/responsible-conduct-of-research



Important: Undergraduate Students participating in CUGR Fellowship sponsored research are required to be trained in the *Responsible Conduct of Research*.

Training for the spring will occur:

Date: Monday, 2/22/16
Time: 5:30 – 8:30 pm

In addition, undergraduate students participating in NSF, NIH and USDA-NIFA sponsored research are required to be trained.

Information regarding training for the Spring semester can be found at the ORSP News & Updates, umaine.edu/orsp/welcome/news.

Pre-registration is required and students must be accompanied by a mentor (one per five students). Email. sponsored@umit.maine.edu.

Direct questions to Amanda Ashe on FirstClass or call 207.581.1480.



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[Facebook.com/centerforundergraduateresearch](https://facebook.com/centerforundergraduateresearch)



YouTube:Center4UG_Research@Umaine



Contact Us

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Benefits of Undergraduate Research

For Students:

1. Through research and creative activities, undergraduates learn to solve problems using a variety of methods.
2. They can hone their abilities to communicate and put ideas together, to organize and write, and to investigate and ask questions.
3. Research provides an opportunity for a mentor-mentee relationship different from a teacher-student relationship. In that context, the learning is invaluable.

For Mentors:

1. Undergraduates often have a broader perspective, enthusiasm and energy that are ripe for explorations and learning.
2. One of the most rewarding processes for faculty mentors is witnessing the evolution of student learning when involved in research and creative activities
3. For faculty, mentoring student explorations is an investment in tomorrow's scholars.
4. For graduate students, mentoring UG is a valuable experience.

CUGR Announces New UG Student Travel Grant Program

CUGR is pleased to introduce a new program designed to help UG students travel to conferences and symposiums to present their research. This program is intended to help UG students gain skills aimed at professionalism and receive recognition for their hard work. Undergraduate students who are enrolled at a degree program at UMaine and conducting faculty-mentored research are eligible to apply for this travel grant to present their research results at technical conferences or professional meetings. The review process is on a rolling basis and priority will be given to students who have presented at CUGR showcase. Anticipated award amount is \$300-500 per student.

To apply the student must submit an electronic proposal by completing the form ([url to apply directly below](http://goo.gl/forms/oROHnqXQwb)).

Link to apply: <http://goo.gl/forms/oROHnqXQwb>

The Faculty Mentor associated with the student research project must submit a commitment letter ([url to submit directly below](http://goo.gl/forms/v1GWU6YyXv)).

Link to apply: <http://goo.gl/forms/v1GWU6YyXv>

CUGR Undergraduate Student Travel Grant Recipients

(Student Name, Project Title, Faculty Mentor, Conference/Meeting Title)

1. Jesse Clark, Determining an Expected House Majority Using Pattern Analysis, Dr. Richard Powell, Northeastern Political Science Association's 2015 Conference
2. Shannon O'Neil and Margaret Pierce, Families Raising Children with Disabilities: Concerns and Advice, Nancy Hall, Annual American Speech-Language-Hearing Association Convention
3. Joseph Garcia, Effects of long-range interactions in the one-dimensional Sznajd model, Susan McKay, American Physical Society March Meeting
4. Harold Stewart III, Bridging Town-Gown Divides Through Collaboration and Undergraduate Research, Robert W. Glover, National Collegiate Research Conference

2015-16 Undergraduate Research & Creative Activities Academic Year Fellowships

The Center for Undergraduate Research is pleased to announce the recipients of the Center for Undergraduate Research Creative and Academic Achievement Fellowships for 2015-2016. The fellowships were developed to enhance and increase undergraduate student involvement in faculty supervised research. Each fellowship provides a \$1000 award for the student to help cover costs of the project.

2015-16 Creative and Academic Achievement Fellowship Award Recipients

(Project Title, Student Name, Student Program, Faculty Mentor)

1. Research and Practicum in Arts Management & Marketing: Managing Producer for School of Performing Arts Fundraiser/University Singers European Tour Coordinator, Morgan Cates, Business Management, Laura Artesani
2. Structural Analysis of Thin Film Materials In Controlled Gas Environments using In-Situ X-Ray Diffraction, Matthew Curti, Engineering Physics, Robert Lad
3. Killing of *Streptococcus equi* by Different Moisture Content of Compost, Ashley Edwards, Animal and Veterinary Science, Robert Causey
4. Extraction of polysaccharides from marine biomass, Shania Evangelista, Chemical Engineering, Peter van Walsum
5. Synthesis and Characterization of Ferrocene-Oxadiazole Complexes and a Study of their Medicinal Potential, Grace Gould, Chemistry, Alice Bruce
6. Characterization of the Mechanical Properties of Nanocellulose Based Solid Forms, Hannah Grover, Bioengineering, Michael Mason
7. Efficacy of Maine Lobster Shell As Treatment For Parasitic Nematodes In Small Ruminants, Morgan Gustin, Animal and Veterinary Science, Robert Bayer
8. The effects of categorization training on category representations, Mikael Heikkinen, Psychology, Shawn Ell
9. Investigation into a new hydrogel material for 3D cell culture, Samuel Landry, Chemical Engineering, William Gramlich
10. Analyzing the spatial variability of snow accumulation on the Eclipse Ice field, Yukon Territory, Canada, Justin Leavitt, Earth Science, Karl Kreutz
11. Prosociality: The Effects of Religion, the Government and other Societal Institutions, Katherine Lees, Psychology, Jordan LaBouff
12. Identity Construction & Queer Theory in Modern American Poetics, Molly Meadows, English Literature, Carla Billitteri
13. Alleviating Social Isolation and Food Insecurity Through Community Gardening; How the Orono Community Garden Impacts Seniors., Sarah Mullis, Sociology, Melissa Ladenheim and Mark Haggerty
14. Investigating Neuromelanin's Role in Neurodegenerative Diseases Using Synthetic Fragments, Elias Pasquerillo, Chemistry, Matthew Brichacek
15. Virtual Reality Exposure Therapy for Veterans with PTSD, Scott Richards, Computer Science, Nicholas Giudice
16. Methadone Exposure and the Mother-Infant Bond, Ella Sulinski, Cognitive Psychology, Marie Hayes
17. High Speed Mixing during Nanoparticle Formation, Austin Ward, Engineering Physics, Scott Collins

The Center for Undergraduate Research is led by Dr. Ali Abedi serving as Director and staffed by Ms. Alexandria Jesiolowski, Administrative Specialist, and two undergraduate student interns, Katie Leavitt and Sunshine Karns. An Advisory Committee consisting of 12 faculty members across various disciplines provides guidance to the Director, and assists in proposal reviews & showcase planning. Each member serves a three year term.

2015-16 Advisory Committee:

François Amar, Dean of the Honors College

Ebru Ulusoy, Assistant Professor of Marketing

Karl Kreutz, Professor of Earth and Climate Sciences

Mike Kinnison, Professor of Evolutionary Applications

Mimi Killinger, Associate Professor for Honors College, Rezendes Preceptor for the Arts

Nathan Stormer, Chair, Communication & Journalism, Professor of Speech & Theatre

Patricia Poirier, Associate Professor of Nursing

Roberto Lopez-Anido, Professor of Civil Engineering

Sara Lindsay, Associate Professor of Marine Sciences

Sid Mitchell, Associate Professor of Education and Human Development

Stuart Marrs, Professor of Music

Timothy Cole, Associate Dean for Academic and Student Services, CLAS



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YouTube:Center4UG_Research@Umaine

Please send us your student and faculty research stories! Each edition of the CUGR Newsletter highlights research experiences from UMaine and we would love to hear yours!

Send stories and pictures to:
CUGR@maine.edu

Engaged Research: Practicum in Engaged Policy Studies

Robert Glover, CLAS-Honors Preceptor of Political Science

For students looking to do research that has an impact, gain hands on experience working with community partners, and collaborate with students from a diverse range of academic focuses? Then you should consider taking the year-long course, "[Practicum in Engaged Policy Studies](#)". This course was designed in 2011 by Professor Rob Glover as a course where students would collaborate directly with partners in the community (such as municipal governments and non-profit organizations) to conduct sustained, year-long policy research projects.

Robert W. Glover is jointly appointed in the Honors College and Department of Political Science. His research focuses generally on democratic theory, political & community engagement, and the politics of immigration.

Glover has earned many awards during his time at the University of Maine including the 2014 Donald Harward Faculty Award for Service-Learning Excellence and being named as a finalist of the [2015 Ernest A. Lynton Award for the Scholarship of Engagement for Early Career Faculty](#). Glover was also nominated and named as a 2014-2015 CUGR Research Fellow. The CUGR Research Fellows Program aims to support faculty efforts toward improving undergraduate research mentoring skills, expanding curricula to include research and scholarship experiences, and developing proposals for further funding specifically involving undergraduate students.

Recently, Glover was named an [Educational Network for Active Civic Transformation \(ENACT\)](#) Faculty Fellow by the International Center for Ethics, Justice and Public Life at Brandeis University. The new program aims to create a nationwide network of university professors and researchers who directly involve their students in state politics and policy. Glover will receive logistical and financial support to help students learn through direct engagement in this work, traveling to the state capital, meeting with and lobbying legislators, strategizing with advocacy organizations and creating outreach materials to advance their chosen issues.

