FALL FEST 2018
OCTOBER 26 FROM 1-4 P.M.
GODDARD LIBRARY | ACADEMIC COMMONS 1ST FLOOR

A Celebration of Undergraduate Students’ Academic Achievements & Scholarly Distinctions
This event celebrates the research and creative work Clark undergraduate students produce with the support and mentoring of the University’s distinguished faculty and staff, and illustrates the University’s commitment to LEEP. Many of the projects on display today have been supported by various University programs, including the Steinbrecher Fellowship Program, the LEEP Fellow program, the Harrington Fellows program, the Theodore Barth Foundation Internship Award, the NOAA Fellows program, the HERO Fellows program, and the Lois and Robert Green Urban Development and Social Change (UDSC) Summer Internship program.

What is LEEP (Liberal Education and Effective Practice)?

Liberal Education and Effective Practice (LEEP) combines a traditional liberal arts experience with authentic engagement in the world and workplace. This innovative model integrates the wealth of intellectual and academic resources already present at the university with the skills and capacities that are becoming increasingly essential in the 21st century. The Clark undergraduate experience in all its dimensions—from the classroom to the research laboratory, from the co-curricular experience to teams and clubs—will educate graduates known not just for academic excellence, but also for resilience, persuasion, creativity, and the ability to demonstrate character when tested.

Steinbrecher Fellowship Program

In 2005, the family and friends of Clark alumnus David C. Steinbrecher ‘81 created the Steinbrecher Fellowship Program with a generous gift that established a permanent endowment in memory of David that provides fellowships for Clark undergraduates to pursue original ideas, creative research, public service or enrichment projects. The Steinbrecher Fellowship also seeks to create and maintain a vibrant community of learners by bringing Fellows together with each other and with a small group of faculty mentors to share ideas, experiences, and intellectual excitement at dinners and other special gatherings several times during each academic year.

LEEP Fellows Program

The LEEP Fellows program provides opportunities for students to complete LEEP Projects while receiving close mentoring and comprehensive programming support. The LEEP Project is an opportunity for Clark students—typically juniors and rising seniors—to take what they have learned in the classroom and explore its real-world applications. LEEP Projects take different forms, such as creating a product for a local business, assisting families in a developing country, working alongside a researcher in a lab either on campus or in the field, or providing research to support a sustainability initiative. Throughout their LEEP Project, students reflect on their experience and relate what they are learning to future goals. LEEP Projects culminate in a campus presentation at Fall Fest that offers the opportunity to hone essential public speaking skills.

The Harrington Fellows Program

The Harrington Public Affairs Fellowship Program for undergraduates encourages and supports the pursuit of original research on politics and public policy as well as service projects, and is funded by the Francis A. Harrington Public Affairs Fund established in 1963.

Theodore Barth Foundation Internship Award

Thanks to the generosity of the Theodore Barth Foundation, the Career Services offers undergraduate students up to $2500 to support unpaid summer internships in the nonprofit sector. This funded internship opportunity is open to first-years, sophomores, and juniors.

NOAA Fellows Program

Scientists and managers with the National Oceanic and Atmospheric Administration (NOAA) partnered with Clark University to offer qualified undergraduate students paid summer field internships. Opportunities were available in NOAA labs and offices nationwide, working in fields such as applied ocean and atmospheric science, policy, and science communication.

HERO Fellows Program

The Human-Environment Regional Observatory (HERO) program is a unique undergraduate-graduate-faculty experience that engages in research on human-environment relationships in Massachusetts. HERO Fellows conduct hands-on research under the mentorship of Clark University faculty. The research conducted by HERO Fellows often leads to scholarly publications, presentations at academic conferences across the USA, and awards and honors.

Lois and Robert Green Urban Development and Social Change (UDSC) Summer Internship Program

The Urban Development and Social Change Program offers a paid summer internship for a continuing Clark undergraduate student, made possible by a generous endowed fund established by Clark alumni Lois and Robert Green. The intern assists a Worcester City Councilor or the staff of a Worcester city government agency or non-profit organization with a variety of projects and activities aimed at addressing issues of concern to residents of Worcester.

From 1 to 4 p.m. students will display their research findings through posters and electronic media (PowerPoint) presentations. Posters are on the 1st floor of the Goddard Library. Oral presentations are being held on the 4th floor of the library in the Fuller and Prouty Conference rooms. Please enjoy some light refreshments on the 1st floor — thank you for coming!
ORAL PRESENTATIONS

Fuller Conference Room (4th floor — Goddard Library)

1-2:20 p.m.  POLITICAL SCIENCE
Governmental Internships and Research:
Internships: U.S. Congressman Paul Tonko. Sara Conroy, ’20, (sponsor Professor Heather Silber Mohamed)
MA State Representative James Kelcourse. David Sullivan, ’20, (sponsor: Professor Mark C. Miller)
Worcester Division of Public Health. Miranda Hottham, ’19 (sponsor: Professor Michael Butler)
Research: Exploring Educator Opinions vs. Politician Attitudes on Education Reform. Kate Cable-Murphy, ’19 (sponsor: Professor Heather Silber Mohamed)

2:25–3:45 p.m.  POLITICAL SCIENCE
Interning at the United Nations: Our Experiences from Chile, Peru, Bangladesh, and Georgia. Jose Castillo Montenegro, ’19, Maia Nikoladze, ’19, Tanzeem Lodi, ’19, Valeria Chavez, ’21 (sponsor: Professor Michael Butler)

Prouty Conference Room (4th floor — Goddard Library)

1-1:20 p.m.  BIOCHEMISTRY and MOLECULAR BIOLOGY
DNA methyltransferase. Zaza Gelashvili, ’19 (sponsor: Professor Denis Larochelle)

1:25–1:40 p.m.  URBAN DEVELOPMENT AND SOCIAL CHANGE
The City of Three-Deckers. Elizabeth Jones, ’19 (sponsor: Professor Deborah Martin)

1:45–2 p.m.  ENVIRONMENTAL SCIENCE
Sustainable Agricultural Methods around Iquitos Peru. Harris Eidelman, ’19 (sponsor: Professor Rafael Mendoza, School for Field Studies)

2:05–2:20 p.m.  GEOGRAPHY
Mobilities and Dislocation in Prison Transfers. Iolanthe Brooks, ’19 (sponsor: Professor Asha Best)

2:25–2:40 p.m.  HOLOCAUST AND GENOCIDE STUDIES
Forgiveness After the Holocaust: A Study of Eva Mozes Kor. Casey Bush, ’19 (sponsor: Professor Thomas Kuehne)

2:45–3:10 p.m.  MATHEMATICS AND COMPUTER SCIENCE
Topology and Data Analysis. So Jung Kim, ’19, LEEP Fellow (sponsor: Professor Amir Aazami)

3:15–3:35 p.m.  PSYCHOLOGY
An Evidence Based Approach to Juvenile Justice. Andrew Nickerson, ’19, LEEP Fellow (sponsor: Professor Nancy Budwig)

3:40–4 p.m.  SCREEN STUDIES
Screen Studies Internship Guidebook. Peter Tran, ’19, LEEP Fellow (sponsor: Professor Soren Sorensen)

SUMMER RESEARCH & LEEP FELLOWS PRESENTATIONS

Art History


Biochemistry and Molecular Biology

2.  Structural and Biochemical Characterization of HACE1: A HECT E3 Ubiquitin Ligase Involved in Huntington’s Disease and Wilms’ Tumor. Diana Argiles Castillo, ’19 (sponsor: Professor Donald Spratt)


5.  Structural and Biochemical Analysis of the HECT E3 Ubiquitin Ligase, HECW2, and its Implications in Progeria. Justine Bohl, ’19 (sponsor: Professor Donald Spratt)


7.  Structural and functional studies of the HECT E3 ubiquitin ligase E6AP reveal a possible mechanism for the neurodevelopmental disorder Angelman Syndrome. Chloe Kellum, ’19 (sponsor: Professor Donald Spratt)

8.  Biochemical and Biophysical Characterization of HECT E3 Ubiquitin Ligase AREL1 and its Implications in Apoptosis. Emily Ladda, ’19 (sponsor: Professor Donald Spratt)


11.  Biochemical and Structural Examination of HERC4 - a HECT E3 Ubiquitin Ligase that Controls Spermatogenesis, Cancer Metastasis, and Organ Size. Young Sun Lee, ’19 (sponsor: Professor Donald Spratt)


13.  Biophysical Studies of Ubiquitin E3 Ligase, HECTD1, and its Disease Relevance. Misa Mai, ’19 (sponsor: Professor Donald Spratt)

14.  Investigating the role of tumor microenvironment in breast cancer progression and examining a potential target to slow down the progression. Anh Nhu, ’19, LEEP Fellow (sponsor: Professor Denis Larochelle)


Bioinformatics

Biology
20. The Effects of Formaldehyde on ROS Production in Diatoms. Casey Clemente, ’19 (sponsor: Professor Deborah Robertson)
22. Neural Induction in the Annelid Capitella teleta. Anson O’Connor, ’19 (sponsor: Professor Néva Meyer)
23. Ecological implications of Nutrient and Light Stress of a Marine Diatom: Thalassiosira pseudonana. Michelle Robidas, ’19 (sponsor: Professor Deborah Robertson)

Chemistry
26. Selective sensing of azide moiety by a cyclic peptide. Ailin Fu, ’19 (sponsor: Professor Ahrundhati Nag)
27. Single Crystal EPR Studies of Pyrazine-Bridged Copper (II) Chains with Pyridine Ligands: Lab Rotations 10° at a Time. Emma Kirkman-Davis, ’20 in collaboration with graduate student Jeffrey C. Monroe (sponsor: Professor Mark Turnbull)
28. Synthesis of magnetic ladders and chains from the reactions of ethylpyrazine and methylthiopyrazine with CuX₂ (X = Br, Cl). Nikita Kupko, ’20 (sponsor: Professor Mark Turnbull)
29. Structure and Coordination of Nickel(II) with 4-substituted Aniline Ligands. Katie Meehan, ’20 (sponsor: Professor Mark Turnbull)

Computer Sciences
31. Participatory Design Prototype Using Sensory Substitution Devices with Tactile and Audio Feedback. Rashid Al-Mahmood, ’19, LEEP Fellow (sponsor: Professor John Magee)
32. Simulation of Motor Impairment in Head-Controlled Pointer Fitts’ Law Task. Asad Rizvi, ’19, Breanna Desrochers, ’19, Ella Tuson, ’19, LEEP Fellows (sponsor: Professor John Magee)

Environmental Science
33. Biological Effects of Pharmaceuticals on Insect Emergence in Stream Ecosystems. Isabel Hammond, ’22 (sponsor: Professor John Baker)
34. Nutrients in soil and plants consumed by Elephas maximus: Irrelephant or not? Gil Haven, ’19 (sponsor: Professor Megan English, School for Field Studies)
35. Pollinator community around culturally significant focal plants of the Flathead Indian Reservation. Kendra Melanson, ’19 (sponsor: Professor Janene Lichtenberg, Salish Kootenai College)
36. Come back Mommy!: a case study on mothering behavior in rehabilitated Lumholtz’s Tree Kangaroo (Dendrolagus lumholtzi). Mary-Ellise Schiffer, ’19 (sponsor: Professor Sigrid Heise-Pavlov, School for Field Studies)
37. Assessing Intra-fish Scale Variability in Atlantic salmon (Salmo salar) from the Narraguagus and Sheepscot Rivers, ME. Jessica Strzempek, ’20 (sponsor: Professor Karen Frey)

HERO (Human-Environment Regional Observatory)
38. An analysis of juvenile tree survivorship and vigor for the Massachusetts Greening the Gateway Cities program. Elizabeth Lohr, ’19, Rowan Moody, ’20, Andy Pagan, ’19 (sponsors: Professors Deborah Martin and John Rogan)

History
40. The Untold Stories of Worcester Universities’ Divestment From South Africa. Ben Bergeron, ’19, LEEP Fellow (sponsor: Professor Ousmane Power-Greene)
41. Maine’s Invisible Empire: The Ku Klux Klan in the Pine Tree State. Gregory Farrington, ’19, LEEP Fellow (sponsor: Professor Ousmane Power-Greene)

Holocaust and Genocide Studies
42. United States Holocaust Memorial Museum Office of Constituency Engagement Summer Internship. Hannah Garelick, ’20 (sponsor: Professor Shelly Tenenbaum)
43. PROOF: Media For Social Justice; Summer Internship. Maya Jabrallah, ’21 (sponsor: Professor Shelly Tenenbaum)
44. Never Again Rwanda: Study Abroad Internship. Hannah King, ’19 (sponsor: Professor Shelly Tenenbaum)

Music
45. Assisting in Organizing Chamber Fest: Building a community through music. Teresa Dancewicz Helmers, ’19, LEEP Fellow (sponsor: Professor Benjamin Korstvedt)
Physics
46. Characterizing Strain in the CDW Compound CeTe2. Burhan Ahmed, ’19 (sponsor: Professor Michael Boyer)
47. The search for Shubnikov de Haas oscillations in BETs and Pnictide superconductors. Camille Bales, ’19 in collaboration with graduate student Raju Ghimire (sponsor: Professor Charles Agosta)
49. Motion of Vibrating Intruder in Granular Media. Samuel Hoang, ’20 (sponsor: Professor Arshad Kudrolli)
51. Creating a 2-D Simulation of Bose-Einstein Condensate Collisions. Tim Jones, ’19, Matthew Pacenka, ’20 (sponsor: Professor Barbara Capogrosso-Sansone)
52. Motion of Multi-cellular Magneto-tactic Bacteria in an Oscillating Magnetic Field. Cameron Mitchell, ’19, Alejandra Rosselli, ’20, in collaboration with graduate student Ben Roque (sponsor: Professor Alex Petroff)
53. Understanding the Effects of Controlled Strain and Temperature on Anisotropic Material Properties. Michael O’Connor, ’20 in collaboration with graduate student Manoj Singh (sponsor: Professor Michael Boyer)
54. Distribution of Multicellular Magnetotactic Bacteria against a Flat Wall. Alejandra Rosselli, ’20, Cameron Mitchell, ’19 in collaboration with graduate student Ben Roque (sponsor: Professor Alexander Petroff)
55. Fingering Instability in Proppant Injection using a Hele-Shaw Cell. Ram Sudhir Sharma, ’19 in collaboration with Rausan Jewel (sponsor: Professor Arshad Kudrolli)
56. Properties of word-line configurations in superfluid and insulating phases. Liana Shpani, ’21 (sponsor: Professor Barbara Capogrosso-Sansone)

Political Science
57. The Global South’s Position in United Nations Peacekeeping: A Case Study of Bangladesh. Padmini Dey, ’19 (sponsor: Professor Michael Butler)

Psychology
61. The Importance of Team vs Individual Sports Participation in the Development of Young Children. Kendra Walker, ’19 (sponsor: Professor Ana Marcelo)
HONOR SOCIETIES

2018/2019 Members of Fiat Lux
Keegan Daugherty
Katy Deng
Chukwuma Egbozie
Isabella Frederick
Macy Golman
Melanie Jennings
Joyce Joseph
Kacey Legare
Manahil Mir
Ben Philip Osuri
Nia Slater-Bookhart
Mary Yohannes

2018/2019 Members of Phi Beta Kappa
Gillian Rude
Ram Sharma
Carolina Song
Isaac Stone

2018/2019 Members of Gryphon and Pleiades
Iolanthe Brooks
Keegan Daugherty
Macy Golman
Joya Hall-Sullivan
Teodor Nicola-Antoniu
Maia Nikoladze
Camilo Posada-Rodriguez
Heather Riesenber

2018/2019 Members of Phi Beta Kappa
Syed Absar Ali
Daniel Anisfeld
Matthew Beutler
Nathan Bram
Noah Bressler
Teheem Cheema
Spencer Cronin
Joshua Dobratz
Charlotte Donovan
Sherief Eldeeb
Mohamed Elmaola
Margaret Foster
Robert Franklin
Lit Graf
Andres Gvirtz
Santiago Herdoiza
Mica Hinga
Jessica Hoops
Ian Jackson
Anthony Jreje
Adam Katzman
Rose Kendrick
Lucyna Kogut
Jenna Libera
Alesia Lozi
Khali Maden
Hung Phuc Mai
Elizabeth Marszalek
Fiona McDonnell
Rutvi Nandani
Emma Needles
Vu Ahn Nguyen Viet
Ashleigh Nongogo
Aidan Ottoni-Wilhelm
Kayla Paton
Maria Pena Montolio
Teide Riley-McNary
Melanie Rotax
Jennifer Rubin
Maria Rudorf
Odile Scherrer
Annie Share
Katherine Swierk
Emily Garcia Tornquist
Qurrat Ul-Ain

UNIVERSITY AWARDS

The James A. Bogdanoff ’82 Memorial Scholarship
Liza French

The Marshall Geer McKim Memorial Fund
CJ Axford
Joyce Joseph
Tiffany Kayo
Phuong Le
Jaim Seiverman
Rose Wine

The Thomas Wisniewski Undergraduate Award
Camilo Posada Rodriguez

DEPARTMENTAL AWARDS

Biology
M. Margaret Comer Memorial Award for Undergraduate Studies in the Biological Sciences
Kole Brownstein
Regan Conrad
Ogechi Ezemma

David Potter Prize for Excellence in Biology
Regan Conrad
Jivanna Mason

Chemistry and Bio-Chemistry
The American Chemical Society Undergraduate Award in Analytical Chemistry
Nikita Kupko

The American Chemical Society Undergraduate Award in Physical Chemistry
Yana Zubarev

Chemical Rubber Company Press Freshman Chemistry Achievement Award
Michelle Bellerive
Colin Farrington

Organic Chemistry Prize
Nikita Kupko

Economics
David R. Porter ’35 Prize for Excellence in Economics
Madeleine Buchman
Maia Nikoladze
Gyulnara Shakhalieva

The Roger Van Tassel Book Prize
Hanna Choi

Leroy Allston Ames Essay Contest
Emily Hawkins - 1st
Mai Taban - 2nd

William H. Carter Jr. Prize in English
Melanie Jennings

Loring Holmes and Ruth Dodd Drama Contest
Toni Armstrong - 1st
Shawn McGarry - 2nd
Lukas Pomerville - 3rd

Prentiss Cheney Hoyt Poetry Contest
Mai Taban
Jane Thomas

Betty ’79 and Stanley Sultan Short Story Contest
Jonathan Krauss

Geography
Linda Roth Memorial Activist Scholar Award
Krissy Truesdale

Strabo Award
Iolanthe Brooks
STUDENT SUMMER RESEARCH AND INTERNSHIP AWARDS

Theodore H. Barth Foundation Summer Internship Award
Nural Nadia Fakhrol Azmi
Emma Landsman
Rowen McAllister
Emma Nagler
Emma Narkewicz
Becky Schaffer
Salma Shawa

Lise Anne and Leo E. Beavers II Fellowship
Saadman Islam
Liliana Wurfl

James ’39 and Ada Bickman Summer Science Research Internship
Ailin Fu
Bethany Lee

Peter J. Condakes Summer Research Award
Iolanthe Brooks
Claire Shapton

Albert C. Erickson ’30 Summer Research Award
Burhan Ahmed
Bradley Brownell
Alejandra Rosselli Calderon

Henry A. Witkin Memorial Fellowship
Keegan Daugherty

Visual and Performing Arts
Jason Michael Simpkins Memorial Endowment for Screen Studies
Maxwell Sacra

Liana Shpani

Ina R. and Haskell R. Gordon Fund for Undergraduate Students of Holocaust Studies
Elizabeth Jones
Madeleine Buchman

The Harrington Public Affairs Fellowship Program for Undergraduates
Maha Akbar
Kate Cable-Murphy
Jose Castillo Montenegro
Sara Conroy
Miranda Hotham
Tanzeem Lodi
Maia Nikoladze
David Sullivan

HERO (Human-Environment Regional Observatory) Fellowship
Laura Cohen
Rachel Corcoran-Adams
Elizabeth Lohr
Rowan Moody
Andrew Pagan
Yeannet Ruiz

Henry J. and Erna D. Leir Summer Research Scholarship
Lucyna Kogut
Toni Armstrong

Henry J. and Erna D. Leir Merit Scholarships
Victoria Beyer
Andrea Gilardi
Joseph Jung
Rose Wine

Henry J. and Erna D. Leir Excellence through Diversity Scholarship
Andrea Gilardi
Joseph Jung
Rose Wine

The Henry J. and Erna D. Leir Global Citizen Scholarship
Victoria Beyer
Alexandra Furtado
Rose Wine

Marine-Mosakowski NOAA (National Oceanic and Atmospheric Administration) National Centers for Coastal Ocean Science Fellows
Anthony Himmelberger
Sophie Spiliotopoulos
Jess Strempek

Maurine H. Milburn Summer Research Fellowship
Justine Bohl
Emily Ladda
Young Sun Lee

Robert Noyce Summer Internship Program
Trang Hoang
Anh Nhu
Aisha Shahzad
Nick Slaughter

PCi synthesis Chemistry Summer Fellowship
Faith Witkos
Steinbrecher Fellows
Toni Armstrong
Casey Bush
Cory Bisbee
Iolanthe Brooks
Mackensie DeFaria
Linnea Menin
Sydney Pepper
Salma Shawa
Maggie Tarbox

Doris Tager Summer Stipend
Macy Golman

NATIONAL SCHOLARSHIPS AND AWARDS

Benjamin A. Gilman International Scholarship
Max Defaria
Mujidat Fashola
Joyce Joseph
Claire Sullivan
Sara Vera-Cruz

Japan Exchange and Teaching Program (JET)
Sarah Cogan