Welcome to Thinking Matters 2019!!

As Faculty Chair of Thinking Matters and the Director of the Honors Program, I am proud to offer our community an event that showcases all the deeply engaged, rigorous, and applied learning experiences we offer our students at the University of Southern Maine. Today, our students come together to share their research and community projects with each other and with the greater Portland community.

This year, Thinking Matters is bigger than ever! I hope you’ll join us for breakfast at 8:30 and stay for the day—we have 3 sessions of poster and oral sessions happening concurrently, with students from across the university showcasing their scholarship. At noon, grab a boxed lunch and join us in Hannaford Hall for our Keynote event: the second annual Lightning Talks! This year, we’ll showcase six of our strongest students who will share their research projects in a lively and engaging format. Together, we’ll learn about cutting-edge work in a variety of fields, including the integration of yoga in recovery, Maine’s abortion history, citizen-scientist initiatives, and so much more. Thanks to Adam Burk and the Treehouse Institute for supporting our Lightning Talk winners, and to President Cummings and Meghan Cadwallader’s Educational Partnership for generously funding this Keynote event.

I am grateful to many people for their support in the planning and execution of this event. First and foremost, my thanks go to my gracious colleague Sarah Jane MacKay, whose careful planning and attention to detail are remarkable and indispensable. Thanks also to Adam Burk of Adam Burk & Co. served as a phenomenal coach and mentor for our six Lightning Talk scholars—his support of our students has been invaluable. Sarah Lucchesi, Bill Grubb, Jessica Hovey and the USM Library staff deserve special thanks for leading workshops on designing posters and effective oral presentations. Thanks also to Vinton Valentine, who prints our beautiful posters each year. USM’s Public Affairs team makes sure that our event is publicized far and wide, and our Marketing team produces our paper and electronic materials. I would also like to recognize our colleagues at SMCC and KVCC: thank you for continuing to promote Thinking Matters on your campuses, and for encouraging your students to attend and present here.

As always, the biggest thanks go to our students, faculty, and staff. This event would not be possible without your continued dedication and support. Thinking Matters is not just an annual symposium, it is an opportunity for us to come together and share our hard work with our friends, colleagues, and communities. Thank you for joining us here today, as we celebrate learning, innovation, and creativity in Maine!

Rebecca Starr Nisetich, Ph.D.
Honors Program Director
Thinking Matters Chair

CONFERENCE SCHEDULE

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<th>Event</th>
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<tr>
<td>9:00 - 10:15 AM</td>
<td>Poster/Oral Session I</td>
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<tr>
<td>10:30 - 11:45 AM</td>
<td>Poster/Oral Session 2</td>
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<tr>
<td>12:00 - 1:00 PM</td>
<td>Lightning Talks (Hannaford Hall)</td>
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<tr>
<td>1:15 - 2:30 PM</td>
<td>Poster/Oral Session 3</td>
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Friday, April 19, 2019
9:00 AM - 2:30 PM
Abromson Center
Portland campus
## POSTER SESSIONS

### SESSION 1 – 9:00 - 10:15 AM

<table>
<thead>
<tr>
<th>FACULTY MENTOR</th>
<th>STUDENT PRESENTER(S)</th>
<th>PRESENTATION TITLE</th>
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<tbody>
<tr>
<td>Daniel Moore</td>
<td>Abigail Griffin</td>
<td>The SRY Gene Determines Gonad Development</td>
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<tr>
<td>Daniel Moore</td>
<td>Ahmed Abbas</td>
<td>A small mutation in the Zika virus has made it much more dangerous</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Aiden Campbell, Renee Stronach</td>
<td>The Effectiveness of Mindfulness-Based Stress Reduction Among BSW and MSW College Students</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Alina Katenov</td>
<td>Is the world ready for “designer babies”?</td>
</tr>
<tr>
<td>Tammy Bickmore</td>
<td>Alyssa Emerson, Maggie Demetrios, Kayla Gehnas</td>
<td>From Evidence Based Practice to Level I Fieldwork: Exploring Occupation in a Prison Setting</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Benjamin Knopp</td>
<td>Opioid use Treatment via Telemedicine: Treatment Options for Rural Maine</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Brittany Dunham, Andrew Paine</td>
<td>Injection habits of intravenous drug users accessing the Portland Needle Exchange</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Christopher Aniapam</td>
<td>Epigenetics And Its Role In Obesity</td>
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<tr>
<td>Rachel Casey</td>
<td>Daniel Rosenheck, Sarah Dian, Benjamin Richards</td>
<td>Mindfulness Practices and Recovery</td>
</tr>
<tr>
<td>Mary Anderson</td>
<td>Diana Kovinsky</td>
<td>Do Visual-Motor Interventions Improve Fine Motor Skills in Children Identified with Cross Dominance?</td>
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<tr>
<td>Mary Anderson</td>
<td>Emma Kakkinens, Alexandra Gardiner</td>
<td>Cross Dominance in Children</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Hannah Shifflett-Kohler, Andrew Brouill</td>
<td>Experiences of Veterans with PTSD and SUD in an outpatient setting</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Hannah Watson, Megan Kemna</td>
<td>The Impact of Life Experiences on Future Hopes and Aspirations</td>
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<tr>
<td>Caroline Shanti</td>
<td>Holly Balvin</td>
<td>Paws For Education</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Holly Wright, Victoria Wilson Townley</td>
<td>Cyberbullying and Suicide Among LGBTQ Youth: Is There a Connection?</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Jackie Klock, Kelsey Hayes</td>
<td>Professional Impressions and Experiences of the Complex Needs of Human Trafficking Survivors</td>
</tr>
<tr>
<td>Rachel Casey</td>
<td>Jennifer Luja, Meg O’Malley</td>
<td>What is the Experience of Children under the Care of an Individual with Mental Health Issues?</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Jeremy Marsh</td>
<td>Two human populations with a need for more red blood cells carry mutations that help do this</td>
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<tr>
<td>Rachel Casey</td>
<td>Jesse Audet</td>
<td>Perceptions and Observations of School-Based Bullying</td>
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<tr>
<td>Mary Anderson</td>
<td>Josephine Hatch</td>
<td>Evidence and Interventions for Children with Handwriting Deficits</td>
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<tr>
<td>Rachel Casey</td>
<td>Kasey Villeneuve, Erin Kelly</td>
<td>Veterans’ Experience of Other Than Honorable Discharge</td>
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<tr>
<td>Rachel Casey</td>
<td>Kathryn Jochems</td>
<td>The Experience of Social Workers Who Use Therapy Dogs in Practice</td>
</tr>
<tr>
<td>Tammy Bickmore</td>
<td>Katie Marisette, Chloe Mead</td>
<td>Medication Management and Adherence in Self-Administering Patients Post Discharge</td>
</tr>
<tr>
<td>Rachel Casey</td>
<td>Kay Hanson, Kimberlee Lamotha, Amelia Smith</td>
<td>The Role of Adverse Childhood Experiences in Relationship to Opioids</td>
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<tr>
<td>Mary Anderson</td>
<td>Kayla Tuttle, Sophie Schræter</td>
<td>Tablet Use and Children’s Fine Motor Development</td>
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<tr>
<td>Tammy Bickmore</td>
<td>Kelly Farris, Eileen Ulmer</td>
<td>The Forgotten Leisure Occupation: Travel</td>
</tr>
<tr>
<td>Mary Anderson</td>
<td>Lauren Bennett</td>
<td>Occupational Therapy Interventions are Effective in Remediating Handwriting Deficits Among Children</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Matthew Davis</td>
<td>Manihot and Solanum food crops benefit from novel gene editing techniques</td>
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<tr>
<td>Rachel Casey</td>
<td>Megan Curtis, Danielle Ryder</td>
<td>LGBT+ Teens, Social Media Use &amp; Depressive Symptoms</td>
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<tr>
<td>Daniel Moore</td>
<td>Mohammed Mahdi</td>
<td>Male determining gene Nik may bring an end to transmission of diseases through mosquitoes</td>
</tr>
<tr>
<td>Tammy Bickmore</td>
<td>Nicole Kerstien</td>
<td>Best Practices for Providing Oral Care within the Dementia Population</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Noela Hansen</td>
<td>Education on Burnout and Self-Care at the University of Southern Maine: A Case Study</td>
</tr>
<tr>
<td>Rachel Casey</td>
<td>Rebecca Crandall, Jinni Campbell</td>
<td>Investigating Professional Grief Following the Death of a Client in Mental Health Professionals</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Samar Khuder</td>
<td>For Successful Blood Transfusion Your Blood Type May Be More Than ABO</td>
</tr>
<tr>
<td>Caroline Shanti</td>
<td>Sean Thomas, Henry Myer</td>
<td>Exploring connections between Adverse Childhood Experiences and Homelessness</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Serena Weston</td>
<td>X-inactivation</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Sharon Jordan</td>
<td>Understanding the genetics of Huntington’s Disease may lead to treatment and a cure</td>
</tr>
<tr>
<td>Rachel Casey</td>
<td>Stephen White, Bridget O’Keefe</td>
<td>What Safe Gun Storage and Child Access Prevention Policies do People Think would be Effective in Reducing Accidental Gun Deaths in America?</td>
</tr>
<tr>
<td>Rachel Casey</td>
<td>Teresa Sosa, Emerda Ogweta</td>
<td>Refugee Conceptualizations of Mental Health</td>
</tr>
<tr>
<td>Daniel Moore</td>
<td>Zainab Miguel</td>
<td>CRISPR used in mosquitoes and mice as gene drive technology</td>
</tr>
<tr>
<td>Paula Gerstenblatt</td>
<td>Sally Pappas</td>
<td>Lived Experiences of Veterans Family Members in Maine</td>
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### SESSION 2 – 10:30 - 11:45 AM

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<thead>
<tr>
<th>FACULTY MENTOR</th>
<th>STUDENT PRESENTER(S)</th>
<th>PRESENTATION TITLE</th>
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<tbody>
<tr>
<td>Sharon Timmerlake</td>
<td>Amy Blaisdell</td>
<td>Minimalist Approach to Leadership</td>
</tr>
<tr>
<td>Brenda Joly</td>
<td>Andre Traskowski</td>
<td>Age Differences in Bict Drug Use in Maine</td>
</tr>
<tr>
<td>Elizabeth Goryunova</td>
<td>Andy Mclement</td>
<td>Generational Differences in Organizational Culture</td>
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<tr>
<td>Reuben Addo</td>
<td>Anna Schindler</td>
<td>Gender Based Harassment &amp; Discrimination in the Workplace</td>
</tr>
<tr>
<td>Brenda Joly</td>
<td>Ashley Dougherty</td>
<td>Asthma &amp; Quick-Relief Medication in Maine</td>
</tr>
<tr>
<td>Brenda Joly</td>
<td>Brian King, Hassan Mahmoud, Anthony Pastore</td>
<td>Developing an International Health Curriculum for Medical Residencies</td>
</tr>
<tr>
<td>Joseph Staples</td>
<td>Daniel Hutchings</td>
<td>Container size, development, and mortality in mosquito larvae Culex pipiens (Linnæus) (Diptera, Culicidae)</td>
</tr>
<tr>
<td>Brenda Joly</td>
<td>Emily Bauer</td>
<td>Interrupted Progress: Water and Sanitation in Haiti</td>
</tr>
<tr>
<td>Elizabeth Goryunova</td>
<td>Jared Bouget</td>
<td>Managing Small Teams &amp; Leadership: The Best Method to Leading a Small Team</td>
</tr>
<tr>
<td>Elizabeth Goryunova</td>
<td>Javier Mendros Gault</td>
<td>Virtual International Leadership Within Organizations: Overcoming Cultural, Language, and Physical Barriers</td>
</tr>
<tr>
<td>Elizabeth Goryunova</td>
<td>Jennifer Mull-Brooks</td>
<td>Building Bonds on Teams: How Team Building Positively Impacts Young Athletes</td>
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<tr>
<td>Elizabeth Goryunova</td>
<td>Joshua Ferguson</td>
<td>Fake Service Dogs: Leading by Example</td>
</tr>
<tr>
<td>Elizabeth Goryunova</td>
<td>Kasey Gallant</td>
<td>Authentic Leadership and its Effects on Employee Turnover and Job Satisfaction in Relation to Supervisor Accessibility</td>
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</tbody>
</table>
ORAL SESSIONS

CLASSROOM 1 - ABRONSON 213
Matthew Bampton
Diona Farrell
A Case Study of High Latitude North Atlantic Historical Climate Change and Human Response

Daniel Martinez
Emma Saayer
Testing the Accuracy of Inexpensive Air Quality Sensors and Farming an On Campus Network

Suzannah Gordon-Messer
Joseph Toews
Constant Force Spring Loaded Bicycle

Nathan Hamilton
Julia Gustafson
The North Atlantic Realm: Mapping Environmental and Climatic Change Through Archaeology

Robert Sanford
Kelly Lynch
Burn Cash Eat Trash: USM food waste study

CLASSROOM 2 - ABRONSON 214
Robert Thompson
Christa McDonough
Do children’s concepts of achievement and knowledge reflect their upbringing and parenting backgrounds?: Adding to the debate through a literature-based investigation and empirical study

Sarah Grider
Erin Murphy
Occupation and Early Childhood Power Mobility: An Exploratory Case Study of Family Perspectives Through Participation in Go Baby Go

Jeanne Hilt
Foster McNamara
Learned Attention and English Morphology

Diana McDaniel
Liam Morris
Nyaspeeling: Towards a New English Spelling System

Judy Shepard-Kegl
Rachelle Mendola
Differences between LSF and ASL regarding the variable ordering of independent noun phrases corresponding to figure and ground constructions

CLASSROOM 3 - ABRONSON 215
Michaela Reagan
Anastasija D’Amico
How human donor variability can influence myeloma’s response to chemotherapeutic drugs when in the presence of adipocytes

Christine Maher
Britney Evangelista
Methods to Manage Woodchucks

Karen Wilson
Emma Demirson
Behavioral habits in juvenile alewife using Highland Lake as a Nursery Habitat

Margarite Hausman
Haley Depner
The chemical properties of soil in the vicinity of two genera of ant belonging to the subfamily Myrmicinae; /Aphaenogaster/ and Myrmica/

James Ford
Jean Paul Habumugisha
Quantification of unreacted styrene in composites laminate using SPME/GC techniques

ORAL SESSIONS

POSTER SESSIONS

THINKING MATTERS 2019

FACULTY MENTOR
STUDENT PRESENTER(S)
PRESENTATION TITLE

Carloline Shanti
Sarah Gordon, Danielle Mack
Beliefs and Attitudes of Sexual Assault and Bystander Intervention for College Students in Rural Private College

Mustafa Guvench
Seth Percy
Electro-thermally Actuated MEMS Micro-grippers: Design, Simulation, Fabrication and Testing

Carlos Lück
Seth Percy, Josh Perry
Multimeter Design Kit for Circuit Theory Education

Ivan Most
Seth Percy, Earl Fall, John Gaudet, Michelle Neelon, Mike Zagorasakis
Consultation for Lighting Replacement in USM’s Bailey Hall

Mehrdad Gorashi
Thomas Hill
Modification of the Differential Demo Setup, Simulation & Velocity Output Analysis Using Solidworks

Maureen LaGarde
Tiana Burton, Allison Pickering
Hospitality, Tourism and Sustainability: A comprehensive study comparing Iceland and Maine

Reza Jalali
Trisha Trinidad
A Refugee’s Journey

Michael Davis
Tyler Mathieu
Wind Tunnel Lab Experience for MEE439

Rachel Lasley-Rasher
Valerie Huston, Teresa Martel, Zimzim Mohamed
The Influence of Hemigrapsus sanguineus and Carcinus maenas Crabs in Kettle Cove,Cape Elizabeth, Maine

Christine Maher
Zachary Lankist
Influence of indirect cues and vegetation density on foraging behavior in snowshoe hares (Lepus americanus)

FACULTY MENTOR
STUDENT PRESENTER(S)
PRESENTATION TITLE

Robert Thompson
Oliver Nichols
Theory to Practice: Connecting Empirical Research and Professional Development

James Ford
Prashanthi Podukal
Analysis of the transition of chemistry students from high school to the university

Joseph McDonnell
Sara Fastett née Flowers
Can Folkhejøkkel Help Make Taking a Gap Year Function as a Higher Education First-year Experience?

Joseph McDonnell
Sara Flowers
A Higher Education Response to Ramping Violence

Daniel Panici
Tessa Winship
The Power of Disclosure: How Students and Advisors Reduce Uncertainty

ML

CLASSROOM 4 - ABRONSON 214
Wendy Chapkis
Caroline Wheeler
Querying the Past: Maine LGBTQ Oral History Project

Wendy Chapkis
Emma Chaplin
Querying the Past: Maine LGBTQ Oral History Project

Wendy Chapkis
Hannah Cain
Querying the Past: Maine LGBTQ Oral History Project

Wendy Chapkis
Jack Barrett
Querying the Past: Maine LGBTQ Oral History Project

Wendy Chapkis
May Hornman
Querying the Past: Maine LGBTQ Oral History Project

Wendy Chapkis
Saylor Hebert
Querying the Past: Maine LGBTQ Oral History Project

Wendy Chapkis
Tiana Cope-Ferland, Gozette Holmes
Querying the Past: Maine LGBTQ Oral History Project

CLASSROOM 3 - ABRONSON 215
Mustafa Guvench
Ah Duong
Development of Ammonia Gas Sensors Printed on Flexible Kapton Substrates

Mustafa Guvench
Joshua Perry
Testing and Characterization of MEMS Narrow Band Biomimetic Directional Microphone Based on the Fly Ormia Ochracea

Paul Nakashita
MacKenzie Libby
The construction of Muon detectors as a basis for research at USM

Carlos Lück
Seth Percy
Microbot™ Modification for Redundancy Resolution

Mustafa Guvench
Shindano Singi
Design and Test of Micro-Electro-Mechanical Systems (MEMS) Piezoelectric Energy Harvester

CLASSROOM 4 - ABRONSON 216
David Champlin
Alaa Makki
The Role of Collagen Triple Helix Repeat-Containing 1 Signaling in Adipogenesis and Lipolysis

David Champlin,
Bethany Ferrier, Gene Ables,
Lucy Law,
Joshua Boucher, Emily Cooper, Robert Kaza
The Effect of Methionine Restriction on the Thermogenic Phenotype of Perivascular Adipose Tissue

Robert Kaza
Lila Brooks
Determination of the biological consequences of abnormal Mest expression

Aaron Brown
Rachele Mendola, Chad Doucette, Daniel Nguyen
Analysis of anti-diabetic exosomes secreted from beige adipocytes

Lucy Law
Samantha White, Joshua Boucher, Anne Harrington, Larrisa Rykhova
Development of transgenic mouse models to investigate RAB27a regulation of perivascular adipise tissue

CLASSROOM 5 - ABRONSON 109/110
Roshi Miller
Andrew Cook
Recovery, Substance Misuse, and Retaliate

Derek Tharp
Christopher Hickey
Health Insurance Marketplace Taxonomy and its Influence on Consumer Perception of Plan Suitability
THINKING MATTERS 2019

Dennis Gilbert Griffin Germond Checking In, Concussions Out: Body Checking in Maine Girls’ High School Ice Hockey & Beyond
Erika Ziller Morgan Horn The Prevalence of and Risk Factors for Suicidal Ideation among Rural Populations in the United States
Erika Ziller Zachariah Cool Health Status and Access to Care Among Mainers’ Low-Income Childless Adults: Implications for State Medicaid Expansion

SESSION 3 – 1:15 - 2:30 PM
CLASSROOM 1 - ABROMSON 213
Leif Oxburgh Casey Altemeyer, Ed Jachimowicz Developing an Assay to Determine the Presence of Human Urine by Identifying Tamm Horsfall Protein in Samples
Douglas Currie Emily Gibbs, Taylor Lyman Arsenic Exposure Effects on Glial Brain Cells
Clifford Rosen Pratima Bajgain Role of a-Synuclein in Bone Formation
Sergeru Ryzhov Teaka Jackson, Amandra Faerum-Leuessart, Sarah Peterson, Michael Robich, Douglas Sawyer Level of circulating vascular endothelial growth factor (VEGF) after coronary artery bypass grafting (CABG) surgery
Hady Phoulady Zachary Rohman Automated Grading of Histology Slides for Breast Cancer Prognosis with Convolutional Neural Networks

CLASSROOM 2 - ABROMSON 214
Francesca Vassallo Carole Grant European Nationalism in The Age of Populism
Elizabeth Bischof Emma Quinn Myth, Metaphor, and Memorialization: A History of the Spanish Civil War through Pablo Picasso’s Guernica and Robert Capa’s photography
Elizabeth Bischof Jack Martin Memoirs of a City: A Contemporary Walking Tour of Historic Bath, Maine from the 17th century to the 20th
Tracy Michaud Wendy Gallant Community Tourism Development in Naples, Maine

CLASSROOM 3 - ABROMSON 215
Rosemary Cleary Adele Hayward Agency and Attunement of Youth Seeking Resources Through Preble Street.
Rosemary Cleary Deyvon Winter Toxic Masculinity and Programs of Intervention in Maine
Rosemary Cleary Mariah Reed ABA View: Considering the Implementation of ABA in the Classroom to Address Lethality in Behavior
Rosemary Cleary Mel Batchelor The importance of Intersectionality in Recovery Spaces
Rosemary Cleary Zakia Momand TBD

CLASSROOM 4 - ABROMSON 216
Jessica Ouellette Bianca Sturchio Digitally Mediated Spaces as Sites for Counterpublic Discourse among LGBTQ+ and Disabled Adults
Elizabeth Tracy Chelsea Stephens Undergraduate Social Work Students’ Perceptions of Developmental Disability
Jessica Ouellette Emma Donnelly A Feminist Rhetorical Analysis of Abortion Access in Maine
Katherin Ahrens Jaslyn Janis Female age at first sexual intercourse by rural-urban residence
Wendy Chapkis Johnna Ossie The significance of Cross-Generational Connection in the Queer Community

CLASSROOM 5 - LUTHER BONNEY 147
Sharon Timberlake Kristina Careeny The Science Behind Service Dogs and Stress Relieving Therapy
Sharon Timberlake Shelly Dubois Motivating and Engaging Pulmonary Rehabilitation Patients
Sharon Timberlake Eliza Skidgel The Sexualization and Misrepresentation of Lesbian Characters in Contemporary Television
Sharon Timberlake Alfred Moore Discovering the Effectiveness of and Challenges for MST/PTSD Survivors Using Service Dogs
Sharon Timberlake Jeff Bernier Engaging a Multi-Generational Workforce: Understanding and Managing Generational Differences in the Filtration Industry
Sharon Timberlake Meredith Blackford Coaches in Maine Have an Ethical Responsibility as Leaders to Disclose the Risks of Sport Specialization
Sharon Timberlake Lai Nguyen A Meta-Analysis Exploring Literary Leadership Efforts in Schools and How Literary Leaders Facilitate and Serve as a Catalyst for Successful Student Achievement
Sharon Timberlake Stacy Nightingale Trauma-Informed Practices To Reduce Student Stress
Sharon Timberlake Troy Johnston Facebook: How Likes and Followers Affect Users Perception of Leadership