



RESEARCH & CREATIVE ACHIEVEMENT CONFERENCE | 2019



THURSDAY, MAY 2

2019



MERRIMACK COLLEGE



Welcome to the annual Merrimack College Research and Creative Achievement Conference.

At Merrimack, we are deeply committed to enabling meaningful student-faculty collaborative research and scholarship. This conference is designed to highlight that commitment and celebrate academic and creative excellence of undergraduate and graduate work. We are also honored to highlight mentored student work based on the College's commitment to engagement with our community partners. These reciprocal and collaborative partnerships serve to enrich the scholarship, research and creative activity of our students and faculty while strengthening our institutional mission of fostering civic responsibility, addressing societal issues and contributing to the public good.

On behalf of Merrimack College, I applaud and commend the excellent student scholarship presented here today and take great pride in their accomplishments.

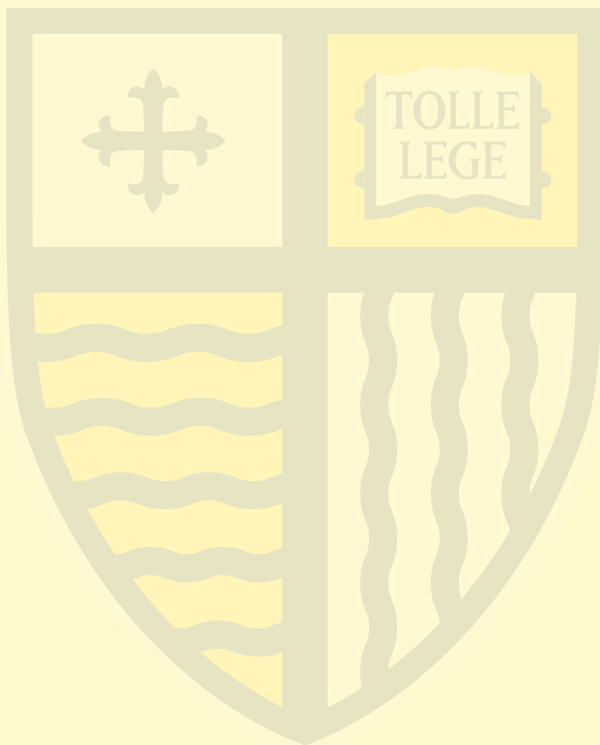
Allan T. Weatherwax, Ph.D.

Provost and Senior Vice President for Academic Affairs

ACKNOWLEDGEMENTS

The completion of this undertaking could not have been possible without the assistance and participation from so many whose names may not all be enumerated. Their contributions are sincerely appreciated and gratefully acknowledged. We would especially like to express deep appreciation to the faculty and community partners who supported and mentored student research and creative achievement during this academic year

We would also like to acknowledge the Office of the Provost, the Office of Development and Alumni Relations, the Office of Communications, the Center of Excellence in Teaching and Learning, the Print Center, IT, Conference and Events, Facilities, Sodexo, and Dr. Michael Stroud for going above and beyond in their support for the 2019 Research and Creative Achievement Conference.



SCHEDULE OF EVENTS

Poster Presentations

Sakowich Campus Center | 3:30 - 5:30pm

- **Girard School of Business**
Undergraduate - MPR
- **School of Education and Social Policy**
Graduate and Undergraduate - MPR
- **School of Health Sciences**
Graduate and Undergraduate - MPR
- **School of Liberal Arts**
Graduate and Undergraduate - Warrior's Den
- **School of Science and Engineering**
Undergraduate - MPR

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- **Virtual Reality** - First Floor Lounge
 - **Toy Collaboration Project** - Warrior's Den
 - **Video Presentations** - Main Street & Warrior's Den

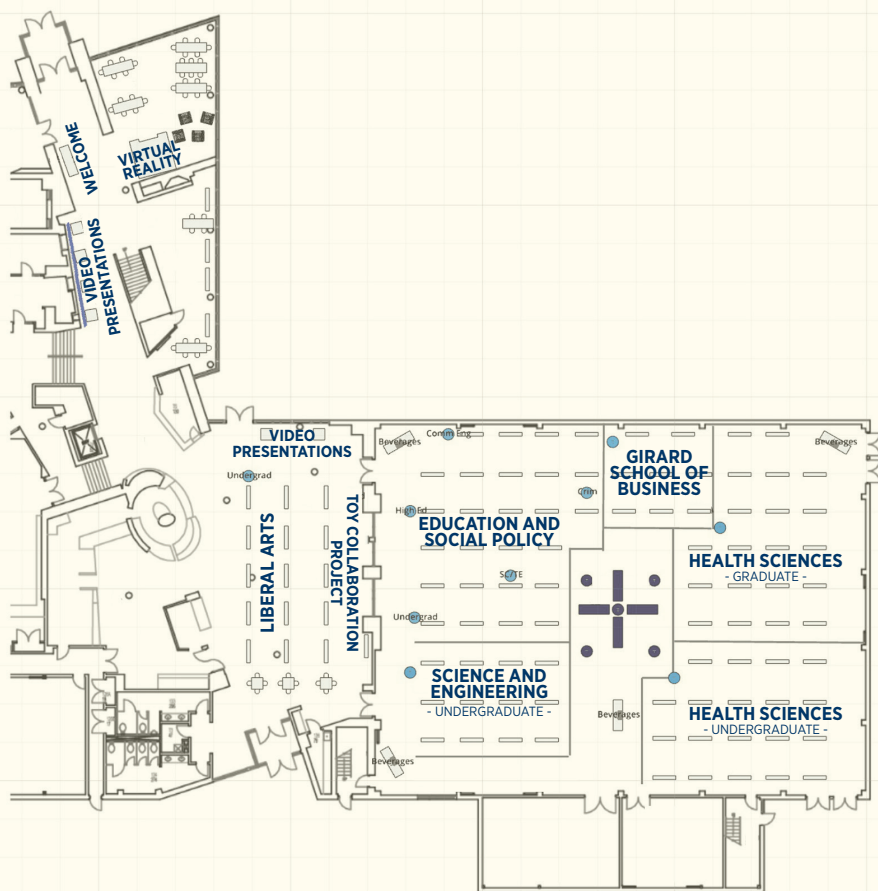
School of Education and Social Policy Student Capstone Speakers

Cascia Hall | 5:30 - 6:30pm

- **Elizabeth Bedortha**
Candidate for Master of Education in Community Engagement
Fear and Loathing: How Fear of the Unknown Fuels Transphobia
- **Emiley Dionne**
Candidate for Master of Education in Higher Education
Taking Undergraduate Student Emotions and Mental Health Seriously: A Comprehensive Approach Response in Wellness Education

EVENT MAP

Sakowich Campus Center Main Floor





UNDERGRADUATE STUDENTS

Measuring Financial Literacy in College Students/Rising Adults

Ashley Augulewicz

Lazarus House Marketing Plan

Meghan Barrasso, Katherine Torres

Walt Disney Company

Julissa Bejar, Ilaisa Garcia

Business Analysis of ExxonMobil

Richard Bourgeois

NASA Presentation

John Callahan, Evan Bowie

Kroger

Michael Chambers

CVS Industry Analysis: How is CVS Doing?

Devin Clemons

Financial Capability Center - Student Survey Results

Jake Doherty, Joseph Pritchard,
Joseph Gonthier, Ashley Augulewicz,
Molly Tansey

Accounting Implications of Fraud in Online vs. Brick & Mortar Businesses

Cailin Fraser

Financial Capability Center Marketing - Team 1

Catherine Flaherty, Molly McKean,
Christopher DeFilippis

Financial Capability Center - Marketing Team 2

Gabriella Gineo, Jack Masterson,
Jillian Hussey

Partnering with a Local Business: D'agostino's Deli

Jacob Howes, Michael Grise,
Jessica Kuhlman

Memes: What Makes them so Funny?

Jacob Howes

P. Nalbandian Oriental Rugs & Antiques: A Marketing Plan

Marissa Iacoviello, Shannon Brault,
Alex Tasiopoulos, Caitlin Broderick

Financial Capability Center - Tax Team

Ryan Johnson, Brian Kelley

CSBS National Case Study Competition: Salem Five

AJ Lemarier, Patrick Kennedy, Jack DeCoste

Rogers Center for the Arts Marketing Plan

David Marshall, Morgan Sewall,
Michaela McCarthy, Caroline Duffy

BlockSWOT: A SWOT Analysis of Blockchain Technology

Dominic Monziona

Product Market in Pharmaceutical Industry

Bartholomew O'Brien

Financial Capability Center - Freshman Awareness for Peer Program

Quentin Parsons, Alexander Regan,
Danielle Quercia, Meghan Barrasso

Sears

Serena Rousseau, Emily Finney,
Meghan Morrison

Fashion as Communication

Samantha Serio

Consumer Perceptions of Data Analytics in Major League Baseball

Riley Sorenson

Marketing Promotion for D'Agostino's Delicatessen

Hannah Stodola, Ava Clemente,
Rachel Silverstein

Financial Capabilities Center-Business Coaching Pilot

Tyler Winn, Timothy Huggins, Molly McKean



GRADUATE STUDENTS

Community Engagement

Nutrition Standards

Andrea Ahearn

The Costs of High-Stakes Testing: What Are They and Who Pays the Highest Price?

Alaina R. Beckshaw

Fear of the Unknown & How it Fuels Transphobia

Elizabeth Bedortha

The Green Carnation Initiative: LGBTQ+ Space, Community, and History

Shaun W K Connors

Creating an Effective Child Welfare Workforce

Yina Cordero

Veterans Are Our Passion: Exploring the Efficacy of Team Rubicon as a Community Building Model

Samantha de Melim

The “I Can’t” Mentality: Overcoming Stereotype Threat and Stigma in Latinx Community Leaders

Ashley M. Duran

To Know the Heart, Follow the Art: Using Art to Develop Empathy Towards Differences in Adolescents

Tai A. Feaster

Kiskeya Reimagined: Breaking Down Fears Through Social Education to Build Community Relations Between Dominicans and Haitians

Scarlett I. Gonzalez Mejia

Value-Based Change: Accountable Care Organizations as a Method of Healthcare Reform

Haley Lebel-Stephen

Punishing Single Mothers: The Need for Subsidized Child Care

Gabrielle Martello

ARTTALK

Megan McCoy

A Step Towards Stronger Police-Youth Relationships: Examining How Youth and Police View the Role of Police in Communities

Brooke O'Leary

A Helping Hand? The Perceived Benefits of Alternative Spring Break on Host Communities and the Actual Benefits from the Host Community Perspective

Erika Proulx

Value Me: The Importance of Self-Determination Skills for Effective Transition Planning for Employment and Post-Secondary Outcomes for Individuals with Disabilities

Kayla Remail

Creating Change: Finding Seniors Role in Local Environmental Issues

Meagan Riche

The Case for Heartwork: Implementing Healing Justice

Michael Roy

“Why we gatta be the poorest?” Disrupting the Cycle of Poverty for Single Mothers in the Bahamas by the Assessment of their Needs and the Mapping of Higher Education and Human Services Resources

Philadenrin Russell

First-Generation College Students: Sense of Belonging on Campus

Elizebeth Salazar

Civic Engagement Beyond Voting: Preparing Community Engaged Citizens in American Secondary Schools

Alexandra Souris

With Great Power: Assessing the Social Responsibility of Small Businesses

Danielle Tetrault



GRADUATE STUDENTS (CONTINUED)

Determining Differences in Bilingualism and Learning Disabilities

Mayreni Villegas

STEM Ready - Inspiring and Preparing Undergraduate Students for Successful Volunteerism in After-school STEM Programming with Marginalized Youth

Bailey Wagner

Working Through The Smog: How White Individuals Develop Critical Consciousness of White Saviorism

Jamie Willer

Criminology and Criminal Justice

The Mental Health Effects on Children Through Parental Incarceration

Maria Arzu

Socioeconomic and Demographic Correlates of Sex Offender Residency in Massachusetts

Maggie Chiavelli

Stress and Decision Making

Anthony Mastrangelo

Connecting the Dots for Missing Children: How Can the Public Help Investigators?

Tayla Moore

Breaking the Cycle of Intergenerational Crime

Katelyn Murphy

No Soldier Left Behind : A Comprehensive Analysis of Veterans' Treatment Courts

Stephen J. Ramunno

Higher Education

Promoting Wellness Education by Incorporating Mindfulness Practices into a First-Year Writing Course

Daruenie Andujar

Food Justice: Systemic Institutional Dining Service Reform

Olivia C. Arnson

Academic Advising Training Curriculum for Faculty

Caleb Bae

New Warriors of the World: First-Year Curriculum to Encourage Internationalization and Service

Sara Birnbaum

A First-Year Experience Seminar for Student-Athletes

Alexandra Callanan

Building the Capacity of D.R.E.A.M: Students with Disabilities Leading at Merrimack College

Ashley N. Callis

Save the Males: Effective Outreach to Men for Academic Support Services at Merrimack

Catherine Chandler

Putting the Community Back Into Community College: an Alumni and Student Engagement Program

Samantha Marie Cocove

School of Health Sciences Internship Preparation Program (SHIP)

Kathleen Cunningham

Taking Undergraduate Student Emotions and Mental Health Seriously: A Comprehensive Approach Response in Wellness Education

Emiley Dionne

Creating The Adaptable Second-Year Sustainability Engagement Toolkit (ASSET) Curriculum

Zachary Drown

Building Future Change Agents: Creating a Center for Student Activism

Dee Dube

Decisions, Decisions: Helping Undeclared Students Find Their Path

Allie Dumont



GRADUATE STUDENTS (CONTINUED)

From Students to Scrubs: A Peer Mentoring Program for Nursing Students

Lance Faria

STEP: The Student Transfer Experience Program for Successful Transition, Adjustment, and Belonging at Merrimack College

Jessi Feiner

A Curriculum for Student-Athletes for a Successful Career Transition

Nicole Fundaro

Validating, Empowering, and Fostering a Sense of Belonging in First-Generation College Students

Jasmine Garver

Training Admission Counselors to Evaluate the Whole Student

Julie Gormley

ASCEND: Academic Success Course Engaging Noteworthy Development for Students on Academic Probation

Morgan Hakala

Leadership for Social Change: A Program for Student Activist Empowerment

Kirsten Marie Hoey

Promoting Student Persistence and Transformative Learning in First-Year Experience Seminars: A Professional Development Curriculum for Instructors

Benjamin Horgan

Hall of Advocates: A Social Justice Living-Learning Community

Jeremy Liang

Exploring Mental Health and the College Experience Through Theater

Olivia Lombardo

Advancing Commuter Belonging: The Commuter Life Engagement Program

Maria Jasmin Medina

Building First Generation STEM Student Success: A Bridge Program

Katharine G. Middleton

Navigating the Seven Cs: An RA Leadership Development Program for Positive Social Change

Sean Modri

Community Engagement from the Heart: Identity and Moral Development Focused Residential Programming Curriculum

John Mulcahey

Supporting Super Sophomores: A Sophomore Success Center at Merrimack College

Maggie O'Brien

Using Current Events as a Tool for Teaching Social Justice and Facilitating Difficult Classroom Dialogues: A Teaching and Learning Curriculum for Educators

Madison O'Connell Savage

Checks and Balances: Implementing a Financial Literacy Program for Community College Students

Serrahtani Parrish

Building a First Generation Student Success Center at Merrimack College

Sheila Pollard

No Soldier Left Behind : A Comprehensive Analysis of Veterans' Treatment Courts

Stephen J. Ramunno

Affirming Identities: The Center For Intercultural Engagement at Mitchell College

Malachi Robinson

Cultivating a Sense of Belonging for Multicultural Students at Merrimack College

Vanessa Rodriguez

Latinx Success: A Global Scholars Program for Diverse Leaders

Yamileyka Rojas



MERRIMACK COLLEGE

SCHOOL OF EDUCATION & SOCIAL POLICY

GRADUATE STUDENTS (CONTINUED)

Success, Belonging, Leadership; Alpha Kappa Alpha Sorority Inc., at Merrimack College

Cathy Rosario

Teaming Up for Student-Athlete Holistic Development

Suzanne Rose

Choose Your Own Adventure: Exploring Majors and Career Paths for First-Year, Undeclared Students

Ariane Seymour

Preparing Resident Advisors To Work With Diverse Identity Groups Through Implicit & Explicit Bias Training

Danielle Stevens

A Program Empowering RA Well Being

JJ Terlaga

Self-Aware Admission Ambassadors for a More Inclusive Merrimack

Amy Vachon

Questioning the Single Story: Teaching White Students to Become Civically Engaged

Emily Victoria Wall

Promoting First-Generation Career Success: The WARRIOR Generation

Shannon Zelek

School Counseling

Effectiveness of the Zones of Regulation

Gabrielle Dehne

Special Education Accommodations

Kimberly Spinale

Understanding Career Readiness and Post-High School Planning

Jaclyn Tramonte

Teacher Education

Impact of Late Start on High School Student Success

Jennifer Dussault

Implicit Bias in Education

Joshua Pires

UNDERGRADUATE STUDENTS

Salem Police Department

Matthew Brown

Comparing and Contrasting through a Second Grade Differentiated Lesson

Lauren Campbell, Erika Scott

Robert Kraft and His Plea of Not Guilty

Julia Casallas

TTRTCriminology Internship

Tiffany Costello

Sound Travels

Ryley Crehan, Julia Freni

Essex County Correctional Facility Programs Unit: Creative Writing Teaching Assistant Internship

Mary Teresa Cuzzupe

Methuen Police Department Internship

Raheem Derrick

Investigating Properties of Materials

Danielle Fusco, Alexandra Scholl

Exploring Force and Motion with Third Graders

Savanna Hill, Marguerite Howland



UNDERGRADUATE STUDENTS (CONTINUED)

Lawrence District Court

Davina Iseghohi-Edwards

Math Curriculum as Implemented in a Third Grade Suburban Setting

Grace Jenkins

Fire & Explosion Investigation Unit

Alex Kwarta

Experiments with Light

Jenissa Lequin, Ann Gerry

The Power of Effective Community Policing: An In-depth Analysis of this Common Practice

Mary Levine

Internship at Essex County Sheriff's Department

Alexandra Luchetti

Pre-Service Teacher Preparedness in Creating and Implementing Lesson Plans

Taylor McNeil

Internship at Wilmington Police Department

Kelsey Mitchell

Internship: Peter J. Parlow Law Firm

Shannon Moran

Criminology and Criminal Justice Internship With The Georgetown, Massachusetts Police Department

Christopher Nasta

Energy at Wetherbee iMovie

Allie O'Brien, Isabella Noone

Second Grade Exploring The Roles of Water on Earth

Carlye Paolo, Amanda Semler

4th Grade Geology - Earth's Place in the Universe

Emma Randazza, Michael Greco

Victim Witness Advocate, Malden District Court

Makenzey Regan

Spring Internship: 2019

Victoria Rego

Severe Weather

Aubree Ronan, Abby Campbell, Sarah Kelly

Internship: Family Services of the Merrimack Valley CASA Program

Brianna Shea

Exploring Waves and Sound in the Fourth Grade

Brenna Shields, Gabriela Rodriguez

Cognitive Effects of Non-Dominant Hand Use Among Older Adults

Sarah A. Vita

Opinions About Math Tutoring

Delaney Yule



GRADUATE STUDENTS

Employee Health Culture Audit of Merrimack College

Patrick Allen

The Effects of Seated Load Carriage on Mobility

Jamilia Almonte

Comparison of Family Mealtime Behaviors in Youth with Neurodevelopmental vs. Affective Disorders

Kaitlin Arsenault

Assessing Relationships Between Motivations to Game, Exergaming Engagement and Mood Improvements in Neurodiverse Youth

Adam Barselau

Concussion Knowledge, History, Symptoms and NPCT in Male and Female Collegiate Hockey Players

Jillian Battista

The Effectiveness and Efficacy of Sexual Education Curriculum: A Qualitative Study

Shannon Beatty

Perspectives on Addressing Food Insecurity on College Campuses, Through Administrator's Eyes: Best Practices and Challenges

Tashanna Brown

Evaluation of Cardiac Rehabilitation Maintenance Programs

Angelica Calderon

The Prevalence of Disordered Eating Behaviors in Collegiate Female Athletes and its Association with Poor Body Image and Nutritional Knowledge

Caitlin Callanan

Evaluation of Risks and Needs Related to Employee Injuries at Merrimack College

Brad Carney

Can Health Education After Workouts Increase the Quality of Life of Intellectually Disabled Adults

Kevin Cecio

Evaluation of a Health Behavior Program

Michaela Christie

Comparison of TightRope Fixation vs. Screw Fixation in the Management of Syndesmotic Ankle Injury

Eliana Miller-Cohen

The Impact of Sleep on Stress Measured by HRV with Welltory App

Samantha Frost Crowley

Stroke Survivors Usage and Opinions on Technology

Julie DiCarlo

Comparison of Operative vs. Non-operative Management for SLAP Lesions

Sherra Dowling

Post Activation Potentiation's Effect on the Bilateral Strength Deficit

Patrick Dugan

How Sleep Affects Academic Performance in First Year Students at Merrimack College

Kelby Enos

Certified Athletic Trainers Self-Perceived Knowledge in Sports Nutrition

Alyson Fisher

Post-activation Potentiation and Blood Occlusion: A Comparison of their Effects on Peak Power Output

Codi Fitzgerald

Male Collegiate Coaches Perceptions of Female Athletic Trainers

Madeline Fitzpatrick

Concussion Reporting Behaviors in Athletes with Previous Concussions

Alden Fontana



GRADUATE STUDENTS (CONTINUED)

Characteristics of Motivation to Exercise Among College Students

Jillian Gentile

Assessing Perceptions of Influenza Vaccination While Pregnant Among Women Who Have Not Yet Conceived: Predictors and Modifiers of Uptake

Franciela Golden

Post-Activation Potentiation (PAP) Response of Unilateral vs. Bilateral Squats on Vertical Jump Performance in NCAA Division II Female Swimmers

Gregory Grinnell

Impact of the Area Health Education Center (AHEC) Scholars Program Upon Cultural Competency

Ashley Hall

Active vs. Sedentary Workers Health Perceptions

Jeffrey Heinz

Parent Perceptions of a Novel Health Intervention for Neurodiverse Youth

Casey Hewett

Determining the Amount of Money Spent on Each Food Category by Military Families Who Are Overweight and Obese

Victoria Himaras

The Importance of Concussion Education at the High School and Collegiate Level

Jennifer Holman

Comparing Multiple Post Activation Potentiation (PAP) Methods and their Effect on Vertical Jump in Division II Collegiate Men's Lacrosse Players

Michael Hunter

Health Literacy of Teen Mothers in an Urban Setting

Madison Jalbert

Worksite Wellness Interest Among Small Private School Faculty and Staff

Colleen M Jenkins

Is there an Acute Effect of Sled Push on 20-yard Sprint Time?

Clifford Joseph

The Effects of Postactivation Potentiation on 60-Yard Shuttle Performance

Josh Kaddy

Creating Inclusive Wellness Services & Programs for College Students

Erin Kaminski

How Wellness Apps Affect Employee Productivity, Engagement, and Overall Health

Riley Kane

Saturated Fatty Acid Activates T Cell Inflammation Through A Nicotinamide Nucleotide Transhydrogenase (NNT) Dependent Mechanism

Alanna Keady

Active Science! Students Perceptions of Physical Activity Within and Beyond the School Day

Kayla LaPierre

Quick Service Restaurants' Advertising Methods in Various Socioeconomic Areas

Nicole Lapierre

Exercise Habits and Limitations of Recent Undergraduate College Students in Massachusetts

Kara Lavertu

The Mindful McQuade Initiative: Barriers to Using the Bikes in McQuade Library

Robyn Lebowitz

Dimensions of Wellness for LIVESTRONG Participants at YMCA's in Massachusetts

Shannon Lee

Designing an Employee Wellness Program That Drives Engagement

Anthony Lupi



GRADUATE STUDENTS (CONTINUED)

The Effect of Ankle Taping on Running Biomechanics

Stephen Lynam

Sleep Behaviors in NCAA Athletes vs. Club Athletes

Christopher Mahanna

The Role of Incentives on Physical Activity Parameters Among Elementary School Students in Physical Education

Michael Majjenski

Soft Tissue Mobilization: Use in Clinical Settings at Division III Collegiate Schools in Massachusetts

Matthew McFadden

A Systematic Review: The Effectiveness of Intuitive Eating

Gabrielle McGrath

Effectiveness of Blood Biomarkers in the Detection of Concussion

Courtney McTague

Neurotracker Benefits

Nikolas Mitrano

Monitoring Recovery-Stress State Throughout a Strength and Conditioning Mesocycle

Danica Moore

The Effects On Balance After a 6-week Strength And Balance Program in Older Adults

Erin Mullan

Housing Needs Following the Columbia Gas Event of September 13, 2018 in the Merrimack Valley

Danielle Murray

Breaking Down Barriers of Outpatient Dietitian-Physician Relationship to Improve Nutrition Care in the Community

Elizabeth Natale

The Hamstring to Quadriceps Ratio in ACL Injury

Katherine Nicastro

The Gut Microbiome and Childhood Obesity

Gabrielle Parilla

The Effects of “Cupping” in Combination with Manual Therapy on Rotator Cuff Tendinopathy in the Reduction of Pain

April Pellegrini

Student-athletes’ Perceptions of the Role of Athletic Trainers in a High School Setting

Taylor Portelinha

Evaluation of General and Sports Nutrition Knowledge Amongst a Developing Program of D1 College Athletes

Sophie Puente

The Influence of Kinesio-Taping on the Volume of Lymphedema in Women After Breast Cancer Treatment

Kate Quigley

Sleeping Habits of Firefighters: How It Relates to Mental States, Diet, and Exercise

Lindsay Roy

Is Exercise Effective at Relieving Perceived Academic Stress?

Daniel Ryan

Undergraduate Students’ Knowledge, Attitudes, and Behaviors Related to Oral Health

Evan Sartell

Comparison of Patellar Tendon vs. Hamstring Tendon Graft in the Reconstruction of the ACL and their Effect On Return to Play and Failure Rate

Julie Schmidt

The Analysis of Increased Strength in Two Exercises Programs: EnhanceFitness and Functional Fitness

Alyssa Schade



GRADUATE STUDENTS (CONTINUED)

Acute Effects of Strength Training on Mood
Meg Seehagen

The Effect of Hydration Status on Pitch Velocity and Strike Percentage in College Baseball Players
Richard Smith

Rotational Power and Performance in Collegiate Tennis Players
Shannon Smith

StrongHER: Assessing the Impact of Instructional Strength Training on Women's Gym Confidence
Kelly Sorge

The Effectiveness of Cafeteria Interventions in Boston Public Schools on Meal Consumption
Mikaela St. Laurent

Views on the Apple Health Application from Future Health Science Professionals
Trent N Talmadge

Efficacy of Mental Health Counseling in Collegiate Athletics
Katelyn Thomas

Athletic History: Sport Diversification vs. Sport Specificity on Injury Risk and Recovery in College Athletes
Madison Ann Thompson

Nutrition Assessment of Functionally Impaired, Community-Dwelling Older Adults
Jaycie Triandafilou

Dry-needling Effectiveness in Treating Myofascial Trigger Point Pain in the Upper Extremity
Eric Tweedie

Effects of Isometrics with an Emphasis on the Foot and Ankle on Reactive Strength Index
Brandon Wickett

Effects on Performance and Return to Play After UCL Reconstruction in Professional Baseball Players
Rachel Ziner

UNDERGRADUATE STUDENTS

How Can LSVT Improve the Balance, Gait, and Motor Skills of a Patient with Parkinson's Disease?
Sabrina Abramek

Metabolic Testing
Lindsey Baillie

Perceived Effects of Yoga and Reiki on Stress
Allie Benkart

Trends in Exercise and Food Choices in Low Income Areas
Gabrielle Beijer

How to Prevent Marijuana Exposures in Children
Erin Blomberg

The Effects of Hip-dominant Post-activation Potentiation on Broad Jump Performance in Varsity Collegiate Football Players
Trevor Bradley-Dade

Substance Abuse and Pregnancy
Katelyn Elizabeth Brown



UNDERGRADUATE STUDENTS (CONTINUED)

The Benefits of Rock Steady Boxing on Symptoms of Parkinson's Disease

Lauren Buttiglieri

Comparison of Anterior Cruciate Ligament Grafts and how they Differ Between Populations

Amanda Cain

Metabolic Changes After Gastric Bypass Surgery

Alison Canjura

Would Combining Dynamic and Static Stretching Benefit an Athlete

Randy Joseph Castillo

Anterior Cruciate Ligament Injuries and the Effectiveness of Neuromuscular Training

Angela Chainey

Financial Capability Center - Balancing the Right Lifestyle

Kylie Chetwynde, Brittany Richard

Is Preoperative Rehab Beneficial to Patients Who Undergo a Total Knee Replacement?

Maeghan Christensen

Ditch the Meats, Eat More Beets

Emily Conaton

Providers are to Blame for the Opioid Epidemic in the United States

Hailey Corbett

Postpartum Depression in First-time Single Mothers

Cristabel Corniel

Low Flu Vaccination Rates Impact on Hospitals

Jacqueline Coscia

Emergent Conditions in Athletic Training

Chris Crawley, Jacky Nolan

Why Do Rotator Cuff Tears and Tendonitis Have Such an Impact on the Body?

Michael Cuesta

Euthanasia and Assisted Suicide Among Brain Cancer Patients

Norissa Dem

An Analysis of the Effects of Psychosocial Variables on Healthcare

Kathryn Donnelly

The Correlation Between College Student's Perception of Self Efficacy and Their Physical Activity

Kathryn Donnelly

Social Emotional Learning in the High School Health Education Classroom

Nicole Douglass

Effects of Polyphenols of Red Wine on Teeth

Ryan Drizen

Impaired Autophagy Promotes ROS and T-cell Inflammation

Samantha Durand, Grace McCambridge, Alanna Keady, Lindsay Baillie, Mariessa Ricciardi, Barbara Nikolajczyk, Leena P. Bharath

HEAL Program

Traci Alberti, CJ Wong, Ashley Hall, Megan Snow, Caroline Ells

Caffeine and Pregnancy

Caroline Conrad Ells

Measuring the Effects of Varied Exercise Dosages of Physical Function Among Older Adults

Olivia FitzGerald, Celine Mende, Lauren Trepaney



UNDERGRADUATE STUDENTS (CONTINUED)

Use of Silver Diamine Fluoride in Pediatric Dentistry for Children in Underdeveloped Areas

Julia Flanders

The Correlation Between Barbell Velocity and Percentages of 1 Rep Max (RM) in the Bench Press Exercise

Peter Franco

Electronic Health Records

Madison Giunta

The Effects of Hydration Status and Body Area to Mass Ratio in Performance in Division 2 College Athletes

Gabrielle Guenther, Matt Ronai

Fall Risk of Dementia Patients in Nursing Homes & Facilities

Gabrielle Guenther

Pre-Med Health Science Curriculum

Megan Haggerty

How PTSD Can Increase the Risk of Developing Dementia

Bianca Hartery

How can Urgent Care Clinics Reduce Overcrowding in Hospital Emergency Rooms?

Emily Howe

Nutrition Therapy Implementation in Prostate Cancer Prevention

Ali Larrabee

The Impacts of Television Watching on a Child's Cognitive Development

Mary Lavallee

Analysis of Myocardial Infarctions

Brenna Little

Chronic Mild Traumatic Brain Injury (mTBI), Napping, and Emotional Reactivity

Kaitlyn Maguire, Elena Azzarto, Nicole Limone, Elizabeth Ludwig

Inclusion in Sports-Based Programs and Special Olympics

Rachel Malieswski

Olympic Lifting Can Increase Strength and Power

Andrew Mastrangelo

Metformin Corrects Autophagy defects and Normalizes Aging Associated Inflammation

Grace McCambridge

The Opioid Epidemic: Detrimental Impacts throughout the United States

Nicole McCarthy

A Local Community's Perspective on General Health Behaviors and Immunizations

Jillian McNamara

Lumbar Spine Recovery

Matthew Mede

Medical Students, Depression, and Sleep Quality

Alexandra Mondini

MMR Vaccine Correlate to Autism?

Haley Morong

Urgent Care Centers Addressing the Prevention and Screening of Influenza

Ashley Nguyen

The Relationship Between Low Back Pain and Hip Rotation in Recreational Collegiate Athletes

Katherine Nicastrò

Yoga and Meditation in Addiction Recovery

Nicholas Olszewski



UNDERGRADUATE STUDENTS (CONTINUED)

Lumbar Spine Injuries in the Young Dancer

Juliana Paluzzi

Why do People with Diabetes Mellitus have an Increased Risk of Shoulder Adhesive Capsulitis?

Katelyn Rae

Why do False Positives Arise from the Seated Slump Test?

Vitoria Raymond

A Comparison of DRP1 Expression and Autophagy in T cells From Obese Diabetic and Non-Diabetic Subjects

Mariessa Ricciardi, Lindsey Baillie

Left Versus Right-Sided Colorectal Cancer Tumors: What is the Impact on Body Composition?

Samantha Ridgewell

Financial Capability Center - Escape the Vape

Anne Snyder, Emelia Zukowski,
Lindsey Bunker, Sara Berg

Poverty and Lack of Education Can Lead People to Make Unhealthy Food Choices, but Nutrition Counseling/Education Can Help Change This

Lauren Scannell

How Education is a Determinant of Health in the Merrimack Valley Area

Denis Shannon

The Importance of Alzheimer's Education for Healthcare Professionals and Caregivers

Olivia Smith

Hypertrophy Training vs. Periodization Weight Training

Chris Sousa

Collegiate Club Figure Skater Lower Extremity Performance Assessment Bilaterally in and out of Skates

Kaylyn Stewart

Brain Injury Day Services Internship

McKenzie Swane

The Effects of Addiction in the Emergency Room

Taylor Sweeney

Adverse Effects of Smoking Tobacco

Sara Tarascio

The Benefits and Potential Revolutionization of Virtual Reality in Laparoscopic Surgical Training

Emily Therrien

How Exercise Can Affect the Brain

Grace Thomas

The Effectiveness of a Zio Patch When Reading Heart Rhythms

Lauren Trepaney

The Impact and the Essential Call for Antimicrobial Stewardship in an Urgent Care Setting

Christian Vega

Cannabidiol (CBD): Natures' Remedy for Osteoarthritis

Emily Volpe



MERRIMACK COLLEGE

SCHOOL OF LIBERAL ARTS

GRADUATE STUDENTS

Public Affairs Fellowship at Groundwork Lawrence
Ian Burns

The Response to the Greater Lawrence Area Columbia Gas Emergency: A Case Study
Timothy Hamlen

Second Chance for Youthful Offenders
Monieke Nikole McNeil

Community Policing
Gregory S Pepper

UNDERGRADUATE STUDENTS

Prisons in the US: A Need for Reform and Educational Rehabilitation
Amanda Alcox

Feminist Anthems: A Musical Journey Through the Decades
Amanda Alcox

Electric Vehicle Infrastructure Opportunity at Merrimack College
Danya Ali, Brendan Carr, Bram Kools, Matt Saniuk, Aidan Scanlon, Katherine Torres

How Well do You Multitask?
Madeleine Bagley, Patty Lucas, Nicole Giannetto, Anthony Richardson

From the Casting Couch to Me Too: The History of Sexual Harassment in Hollywood
Jacquelyn Baldwin

Patriotism and Cosmopolitanism
Miranda Belanger and Becca Legro

Free Range Learning Table
Kevin Benkart, Christopher Pereyra, Joseph Chaplin, Stephen Harnois, Hope Fitch, Claire Foley, Alexa VanSeters, Edward Busiek, Halle Farrell

Campaigning in 150 Characters or Less
Annie Boeckers

Pervasive Stereotypes of American Indians in Popular Culture and their Influence on Public Opinion and Public Policy
Annie Boeckers

Line Up and Pay Attention
Karatina Brunetto, Katelyn Fisher, Victoria Rego

Inside the Comedic Mind
Nicole Bruso

Can you Type what you Hear?
Tiffany Costello, Laura Erickson, Samuel Francois, Juliana Maitino

Sexualization of Girls' Clothing and Objectification Theory
Alyssa Curit

Purchasing Parenthood: An Ethical Analysis of how Rhetoric and Commodity Fetishism within the Reproductive Market are Changing Human Reproduction
Mary Teresa Cuzzupe

Multitasking with a Distractor Present
Samantha Davis, Rachel Gillespie, Alex Athanasopoulos

The Economics of Marriage: A Cross Examination of Class, Race, and Gender
Megan DesAutels

Menstruation in Sub-Saharan Africa: Taboos, Solutions, and Empowerment for Women and Girls
Norway Dolan

Equine-Assisted Therapy
Laura Erickson



UNDERGRADUATE STUDENTS (CONTINUED)

Boston Police: Gang Unit

James Fisher

Philosophical Perspectives on Global LGBTQ+ Rights

Samantha Frey

Can We Multitask?

Juliana Grondin, Madison Christian

Diving Deep into the Korean Comfort Women: The Past, The Present, and Japan's Resistance

Sabrina Hartnett

Stacking Sammie: Toy Collaboration Project

David Jarrett, Shannan Kennedy, Bridget Bradley, Jaclyn Connelly, Jayme Phillips, Jarred Lafko, Joseph Lunetta

The Pl6y Station: Toy Collaboration Project

Kira Kolodziej, Julia Behm, Sudha Michaels, Nick Beam, Amanda Semler, Brianna Raphino

The Water Crisis in Yemen

Dominique Kremer

Internship at Essex County Sheriff's Department

Ryan Lane

"You Need to Speak Up...Advocate For Yourself": Self-Advocacy as Agentic-Identity During the Cancer Diagnosis Process

Rebecca Legro

Delta Airlines

Molly MacNeil, Colleen Pritchard

Methodology of Character Development: Psychological Control of Acting

Mikaela Macomber

Loads of Fun: Toy Collaboration

Harrison Markowsky, Jessica Giuffrida, Alyssa Charlton, Allison Crawford, Kolbi Shairs, David Lambrou, Brian Sardinskas

How Many Tasks Can the Brain Juggle at Once?

Carly McKay, Alyssa Curit, Christina Jackson, Gianella Salvaggio

Detoxing While Incarcerated

Meaghan McKenna

Defending Toxic Masculinity: Advertisement and Media in the 2000s

Ashley McLaughlin

Ready Set Crawl: Toy Collaboration Project

Kailey Meyer, Briana Fox, Giulia Orlando, Kathryn Packard, Amanda Smith, Charles Bertrand, Joey Porricelli, Cristiano Rovero, Erin Fulton, Colleen Slattery

How Many Tasks Can You Pay Attention to?

Mackenzie Miller, Shyann DiGiovanni, Shannon Doucette

The Effects of Multitasking on Reaction Time When Completing a Simple Visual Task vs. a Complex Visual Task

Kelsey Mitchell, Felila Manu, Joey Motzkin

Gender Biases in the Death Penalty

Rachael Monette

Tewksbury Police Department Internship

Joshua Morse

How Well Can We Multitask?

Mackenzie Murphy, Amanda Smith, Allison Tarr, Kiki Ohmen

A Base of Opportunity

Kevin O'Neil

Attitudes Conformity Experiment

Madelyn Padellaro

Toy Collaboration Project: Musical Zoo Bath Toy

Nicholas Paolino, Ashley Swackhamer, Morgan Grant, Peter Vogt, Alison Radzik, Veronica Greenlaw, Kelsey Daniels-OBrien, Bridget Soraghan, Matthew Reeves



UNDERGRADUATE STUDENTS (CONTINUED)

The Refugee Crisis: Legal Obligation vs. Moral Duty

Samantha Pineo

The Effects of Multitasking

Caterina Polito, Lesley Carvalho,
Nicole Limone

Internalizing the Externalities in Automobiles

Matthew Saniuk

The Merrimack College Pep Band: A Public Relations Video

Stephanie Sartori

Gender Disparity in the Age of Consent

Skyler Schwartz

The New "Social Justice" Advertising: Consumerism and The Marketing of Gender

Shyanne Skinner

Tewksbury Police Department Internship

Rebecca Stevens

Penta-Play: Toy Collaboration Project

Joseph Tavanese, Aidan Kennedy,
Tyler Plourde, Ciera Spagolla,
Abigail Baucher, William Skelton,
Erin Walsh, Sarah Whittier

Foster's Pond Phytoremediation and Community Engagement Program

Paige Sorenson, Margaret Byrne,
Hailey McKeever, Kiara Vought, Nathan Hay,
Ramzi Stech, Tyler Noll

Haverhill Police Department

Nicholas Weir

Internship: Middlesex District Attorney, Lowell MA

Hannah Rose White

The Effect of Napping on Attention and Anxiety

Riley Williams

TreeTable

Joshua White, Jack Martin,
Anthony Drinkwater, Mike Kocaj,
Justin Keene, Nicholas Kapuscinski,
Jillian McCormick, Courtney Reggiannini,
Grace McCaffery, Alexis Vierling



UNDERGRADUATE STUDENTS

Dual Axis Active Solar Tracker

Manar Albalawi, Abdulgadir Dghistani,
Faisal Alwardah

Portable Solar Charging System

Mohammed Noh Alhawaj

Wireless Power Charger

Abdullah Aljamhour

Drone Battery Charger

Mahmoud Bagegni

Tumor Associated Antigen Library Annotation & Constitutive Promoter Testing For Personalized Cancer Vaccine Production

Lisa Barbaro

DNA-Functionalized Silver Nanoparticles for Sensing Applications

Lisa Barbaro

Flexible Circuitry Using a Conductive Graphene-Ink

Sofia Basauri, Matthew Fletcher

Design of a Tuned Vibration Absorber

Andrew Bouchard

Increasing Ocean Salinity and its Effects on Coastal Plants

Meghan Bradley

Influence of the Halide Ligand on the Kinetics of the C-N Oxidative Addition Reaction in PN(Me)PRhX Complexes

Michael B. Cleary

Improving Controls and Optimizing Cell Sorting in BioMedicine Design Cell Line Research and Development

John Cobb

Overexpression and Knockout of Myo1D in PC12 Cells

Kayleigh Coombs, Marvin Gonzalez-Romero,
John-Paul Haley-Read, Mitchell Hoar,
Justine Levesque, Jasmyn Mirabal, McKenna
Moore, Isabela Moreno, Lisa Nguyenhoang,
Karina Sanchez Pachon, Salvatore Sciortino,
Constantina Stavrou, Shai Woodman

Electronic Voting

Mark Dalton

Modal Damping Parameter Estimation

Zachary Dumas

Internship at the Lahey Clinic Emergency Room

Ashley Figucia

Analyzing Nanoparticle Effects on Proteins

Connor Gaffney

Modeling the Invasive Range of S. Woodiana

David Giuffre

Investigating the Role of Myosin 1D Molecular Motor through Over-expression in PC12 Cells via Vector Transfection

John-Paul Haley-Read, Salvatore Sciortino,
Sebastiana Redford

Development of Selective Kappa Opioid Receptor Ligands

Heather Hills, McKenna Moore

Investigating Solvent Effects of Spectrophotometry on Azo Dyes

Tyler Hurd

Research Bacterial Metagenomics

Gabrielle Kazzi, Jessica Mermelstein

Looking for BRPF1 Presence in Differentiating Osteoclast Cells

Nicholas Khoury

Geotechnical Factors of Ground Motions in Seattle, Washington

Kayla Lang



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Mathematical Models for Computer Vision

Patrick Langille

The Correlation Between Creatinine Levels In Premature Infants and Growth

Justine Levesque

Mendel 2.0; A Proposal for A New Science and Engineering Building On Merrimack College Campus

Leslie Lima, Denis Davydov

Synthesis of Novel Photostrictive Polymers

Meghan Martin, Madison Morey,
Zachary Hollins

2D Side-Scrolling Narrative Driven Platformer

Nicholas Mirasol

Mitochondrial Activity in Relation to Qp Clone Productivity

Isabela Moreno

Effects of Atrazine on Reproductive Behavior in Female Sailfin Mollies

Nicole Nanof, Hailey McKeever

HeartBeat ID

Deep Neogy

Localization and Accumulation of Silver Nanoparticles in Tomato Tissues

Adam Ngo, Paola Gutierrez

Climate Analytics-as-a-Service

Bartholomew O'Brien, Aidan Buretta,
Aidan Kennedy

Biotic and Abiotic Assessment of the Shawshen River Watershed

Anela Omerovic

Methods of Better Chemical Management

Thomas Pappalardo

PC12 Cells as a Model for Understanding Myosin in Neurons

Sebastiana Redford

Synthesis and Characterization of Nickel and Rhodium Coordination Compounds

Richard Santosuosso

Magneto-rheologically Damped Soft Robotic Manipulator Arm

Brian Stanford

Searchable Encryption

Dan Sullivan

Rove

Emma Theberge, Ares Canetti, Nicholas Paolino, Kevin Benkart

Stress Evaluation using Finite Element Analysis for Development of a Fiber Reinforced Plastic Laminate Solar Oven

Nicholas A. Valente, Andrew Bouchard,
Zachary Dumas, Zachary Limardo,
Courtney Videchak

Using Complex Orthogonal Decomposition to Extract Dispersion Relationships for Mass Chain

Nicholas A. Valente

Gradient-Based Soil Thermal Conductivity Optimization for Horizontal Ground Source Heat Exchangers

Courtney Videchak

Computing on Encrypted Values

Matthew J. Viens

Trace Metal Analysis in Drinking Water

Cheryl Wilkinson

A Genomic and Morphological Study of Using PC12 Cells in a 3D Matrix

Riley Williams, Jasmyn Mirabal,
Constantina Stavrou

Physiological Responses of Chocolate Cherry Tomato (*Solanum Lycopersicum* var. *Chocolate Cherry*) to Silver

Marina Wright, Anela Omerovic

Vegetarian Lifestyle

Marina Wright



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