



UNIVERSITY OF
NEW ENGLAND

17th Annual Student Research and Scholarship Symposium

May 6th, 2016 | 9:00 am-4:00 pm

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| 9:00am-11:00am | Open House: Art Displays and Poster Presentations
Alfond Forum Multi-Purpose Courts |
| 11:00am-11:30am | Welcome Address:
Jeanne Hey, PhD - Dean, College of Arts and Sciences
Edward Bilsky, PhD – Vice President, Research and Scholarship
Alfond Forum Multipurpose Courts |
| 11:30am-12:30pm | Lunch Break
<i>Refreshments available on the second floor of Decary Hall</i> |
| 12:30pm-4:00pm | CAS Oral Presentations
<i>Decary 202, 205, 206, 207, 208, 212</i>
Presentation schedule enclosed in program |

Art Showcase

9:00am-11:00am

17th Annual Student Research Symposium

ART DISPLAY 1

Memento Mori- A Reflection of Mortality

Presenter: Rebecca Sherrier

Advisor: Dr. Stephan Burt

My pieces reflect the practice of memento mori, which is an artistic movement based on representing mortality, through the use of skulls. My still lives encompass vases full of flowers, juxtaposed with a skull, as a commentary on how death is always present in our lives.

Poster Presentations

9:00am-11:00am

17th Annual Student Research Symposium

POSTER 1

Promiscuous Girl

Presenter: Emma Steinbach

Advisor: Professor Beth DeWolfe

College Girls and "Asking For It". A look at the role of sexual assault on campuses and its impact on college girls.

POSTER 2

Not Just a Pretty Face: The Rise of Cosmetics Use on College Campuses

Presenter: Rachel Jozitis

Advisor: Professor Beth DeWolfe

This project aims to investigate how make-up became an integral part of the "college-girl" look and how cosmetic companies targeted college students with their advertising. It draws from secondary literature, advertisements and other primary sources that show how, from the late 1800s into the early 1900s, wearing cosmetics became an expectation for female students.

POSTER 3

A Change In Body Image Over a Century

Presenter: Melissa Richardson

Advisor: Professor Beth DeWolfe

I will be presenting the change in body image of college women in the 1920s compared to the body image of college women today.

POSTER 4

A UNE Student-Athlete Comparison of In-Season vs. Out-Of-Season Grade Point Averages (GPA)

Presenters: Lauren Doneski, Samuel Cloutier and Kasey Rubenstein

Advisor: Dr. Richard LaRue

The purpose of this study is to determine whether Division Three (DIII) athletes at The University of New England perform better academically in-season or out-of-season.

POSTER 5

Motivations Amongst UNE Division III Athletes

Presenters: Josh Larsen, Sara Pelkey, Mollie Bartles and Paul Butkevich

Advisor: Dr. Richard LaRue

A study looking at the intrinsic and extrinsic motivation of UNE Division III athletes.

POSTER 6

A Comparative Study of Intramural Sports Participation

Presenters: Michael Finnegan and Sean Farren

Advisor: Dr. Richard LaRue

This presentation will compare participation in intramural sports at UNE versus nationally.

POSTER 7

Blue Crew App Effect on Attendance at UNE Events

Presenters: Giovanni Mazzone, Nara Ok, Cody Leonard and Meghan Gribbin

Advisor: Dr. Richard LaRue

Research to see whether use of the Blue Crew App has an effect on attendance at UNE events.

POSTER 8

Body Language and Gender in the Classroom

Presenters: Jaymi Wood and Mckayla Cahill

Advisor: Dr. Jennifer Stiegler-Balfour

The purpose of this study is to determine a relationship between impression formation and body language. Specifically, this study will determine whether faculty interpret body language expressed by males and females differently.

POSTER 9

The Buffering Effects of Spirituality

Presenters: Alexandria Rowlee, Emma Liberty-Langlais, Ashley Bankhead and Nicole Belknap

Advisor: Dr. Julie Peterson

This study explores whether a spiritual priming manipulation interacts with task difficulty labels to predict perceptions of task performance, task difficulty, and task completion time.

POSTER 10

Technology and Comprehension Study

Presenters: Samantha Smith, Caitlin Kamenelis and Madison Ruopp

Advisor: Dr. Julie Peterson

Our study focuses on the interaction of attitudes/usage of technology and the medium in which students read (computer screen versus paper) and the effect this interaction has on reading comprehension and retention.

POSTER 11

Does Self-Esteem depend on Gender and Number of Instagram Likes?

Presenters: Amanda MacDonald, Kelly Leger, Garrett McElrath, and Abby Kinens

Advisor: Dr. Julie Peterson

The interactive effect of gender and Instagram likes on participants' levels of self-esteem, such that females with more likes on their pictures will have higher self-esteem compared to men with more likes.

POSTER 12

The effects of negative priming on relationship satisfaction in long-distance and geographically-close relationships.

Presenters: Dominique Jeffers, Faith Paglierani, Maura Derrivan and Adrienne Bowie

Advisor: Dr. Julie Peterson

Romantically involved participants received either a neutral or negative relationship-prime and then reported levels of relationship satisfaction, trust, and commitment. We explored whether the effect of the prime manipulation on satisfaction, trust, and commitment is moderated by relationship type (long-distance relationships vs geographically-close relationships).

POSTER 13

The Effect of Color and Mood on Taste Perception

Presenters: Alicia Bruno, Rebecca Cunningham, Sadie Guimond and Gabrielle Sylvia

Advisor: Dr. Jennifer Stiegler-Balfour

The current study examined the effect of color and mood on taste perception by offering participants Jell-O that was either matched or mismatched in color and flavor. The results will show whether the color of the Jell-O influenced the taste perception and also whether the mood someone was in influenced whether they perceive sweet and sour flavors more strongly.

POSTER 14

The effect of gender and clothing on impression formation in job interviews

Presenters: Zoe Roberts, Luke Rohan, Macy Stowell and Abigail Lagasse

Advisor: Dr. Jennifer Stiegler-Balfour

The goal of the current study was to examine what factors influence whether or not a candidate is viewed positively during a job interview. More specifically, we examined whether casual or formal clothing are significant predictors of positive ratings of job applicants, as well as whether clothing plays a more important role for males or for females during the interview process.

POSTER 15

The effects of in-text parenthetical citations on reading comprehension in skilled- and less-skilled readers.

Presenters: Abby LaChance and Zoe Roberts

Advisor: Dr. Jennifer Stiegler-Balfour

The current study investigated the potential effects of parenthetical reference styles on learning and reading comprehension in both skilled- and less-skilled readers. The results indicate that while skilled readers reduce their reading pace to compensate for the in-text distractions, less-skilled readers do not and thus score significantly lower on comprehension measures than their skilled counterparts.

POSTER 16

Personality Predictors of Social Networking

Presenters: Jill Casazza, Alyssa Mazzariello and Deanna Mansfield

Advisor: Dr. Julie Peterson

This study explored personality predictors of social networking behavior.

POSTER 17

The Effectiveness of the Inverted Classroom Approach in a Psychology Research Methods Course

Presenter: Emily Vasseur

Advisor: Dr. Jennifer Stiegler-Balfour

The current study utilized an inverted classroom model to enhance problem-based learning skills in a research methods course. The goal of this approach was to leverage multimedia resources to reinforce core concepts outside of the classroom, thereby creating opportunities to devote more in-class time to hands-on learning experiences which stress the application of these concepts and problem-solving strategies.

POSTER 18

The potential for a new romantic relationship increases implicit self-esteem among rejection sensitive participants

Presenters: Allison Symonds and Lacey Durkee

Advisor: Dr. Julie Peterson

This research explores how the potential of a new romantic relationship influences implicit (automatic) feelings of self-worth for people high (vs. low) in rejection sensitivity.

POSTER 19

Mood Induction on Task Enjoyability and Performance

Presenters: Samantha Patch, Erika Ackerman, Kelsey Bailey and Rebecca Cram

Advisor: Dr. Jennifer Stiegler-Balfour

This study examined the effects of mood on task enjoyment and task performance of a simple cognitive task by inducing either a positive or negative mood and recording task performance as well as how much participants enjoyed the task. Further, the study examined whether there was an interaction between mood induction and gender on the enjoyability and performance on the cognitive task.

POSTER 20

What's in the Box? Creativity leads to more accurate interpretations of olfactory and tactile cues

Presenters: Amanda Anderson and Haley LaMonica

Advisor: Dr. Jennifer Stiegler-Balfour

The purpose of this study was to determine whether individuals who score high on a creativity scale are more likely to correctly recall tactile stimuli when paired with either incongruent or congruent scents vs. noncreative individuals. We predict that individuals who score higher on a creativity scale will be more likely to correctly recall sensory objects when placed in either condition.

POSTER 21

Mating Under the Influence: effects of 17 α -ethinylestradiol on mate choice in male Siamese fighting fish

Presenters: Haley LaMonica and Rebecca Cram

Advisor: Dr. Teresa Dzieweczynski

This study explored whether males behaved differently to females that varied based on duration (1 or 2 weeks) and concentration of exposure (low, high and no exposure) to an estrogen mimic that is commonly found in water sources.

POSTER 22

Side effects may include: Female Siamese fighting fish avoid males exposed to the estrogen mimic 17 α -ethinylestradiol, regardless of female exposure

Presenter: Jessica Kane

Advisor: Dr. Teresa Dzieweczynski

Because they are not removed in the wastewater treatment process, endocrine disrupting chemicals, such as the estrogen mimic 17 α -ethinylestradiol (EE2), are released into aquatic ecosystems where they exert detrimental effects on fish behavior, morphology, and physiology. This study used a video playback experiment to determine whether EE2 exposure may reduce individual- and population-level fitness in Siamese fighting fish by altering female mate choice.

POSTER 23

Say you'll remember me! The effect of familiarity on the behavior of female fighting fish

Presenters: Megan Stevens, Kelley Portraisa and Nicole Greaney

Advisor: Dr. Teresa Dzieweczynski

This study examines whether female *Betta splendens* show behavioral differences in response to familiar or unfamiliar conspecifics.

POSTER 24

Currents and Contraceptives: how PPCPs are turning the tides on mummichog boldness

Presenters: Nicole Greaney, Sydney Farrin and Erika Ackerman

Advisor: Dr. Teresa Dzieweczynski

This study examines boldness of mummichogs after chronic exposure to different amounts of the estrogen mimic 17 α -ethinylestradiol.

POSTER 25

Scavenging decisions by vertebrates: visual and olfactory cues to risks associated with carcasses

Presenters: Carolyn Wawrzynowski and Sara Deangelo

Advisor: Dr. Zachary Olson

Relationships between organisms are recognized by their relative costs and benefits, but must also acknowledge risks assumed by the actors. Risks associated with scavenging behavior are not well defined. Using a factorial design, we deployed mouse (*Mus musculus*) carcasses in which we manipulated visual and olfactory cues to scavenging risk. A visual cue caused more scavengers to pass on a meal than an olfactory cue. These preliminary results suggest that visual signals of risk may be more important in scavenging decisions than olfactory signals.

POSTER 26

Fresh Water Resources in the Island Nation of Kiribati: Effects of Overpopulation, Health Implications & Management Options

Presenter: Samantha Schildroth

Advisor: Dr. Pam Morgan

Freshwater resources in the coral atoll nation of Kiribati are limited and threatened by an increase in human population. This presentation outlines the population structure in Kiribati, its effect on freshwater lenses, resulting health implications of over-exploited water resources and ways in which to manage these resources.

POSTER 27

Behavioral response of green crabs (*Carcinus meanas*) to both light and sound signals

Presenters: Iliana Flefel, Michelle Furbeck and Emily Corey

Advisor: Dr. Markus Frederich

The green crab *Carcinus meanas* is a highly invasive species and causes extensive damage to the local economy, but controlling the populations by traditional trapping is highly resource intensive. Therefore, we are investigating ways to attract crabs by light and sound signals. Preliminary results show a strong attraction to specific wavelengths, and the response to recordings of their own feeding sounds is currently under investigation.

POSTER 28

Stable Isotope Signatures Reflected in Habitat Affinities: Saltwater, Estuarine, and Freshwater Fish in Saco Bay

Presenter: Andrew Davidsohn

Advisor: Dr. Carrie Byron

This project aims to visualize (both graphically and statistically) the delta carbon-13 values ranges of saltwater, estuarine, and freshwater organisms. Results supported my hypothesis that there is a significant difference in the delta carbon-13 values between saltwater, estuarine, and freshwater organism, suggesting a difference in food sources supporting food webs in each of these habitats.

POSTER 29

Impacts of estrogen in sewage outfall on marine invertebrates.

Presenter: Alyssa Kaufold

Advisors: Dr. Carrie Byron and Dr. Teresa Dzieweczynski

This summer I will be observing how estrogen that does not get filtered out in sewage treatment plants affects marine organisms. Since I do not have any data yet, it will mainly be an introduction and explanation of the purpose and methods I plan to use.

POSTER 30

Food Web Dynamics for Shellfish Aquaculture: Stable Isotope Fractionation Between Oysters and Phytoplankton

Presenter: Katherine Perry

Advisor: Dr. Carrie Byron

The goal of this experiment was to see the trophic-step stable isotope fractionation values between oysters and phytoplankton, and to gain a better understanding of how these species relate to each other and their trophic levels. The common assumption for all species in many different trophic levels is that nitrogen fractionation values are about 3.4‰, and carbon fractionation values are about 0.8 ‰. This grand assumption was tested to see if it is accurate or if a species-specific fractionation value should be established for different organisms in different food webs.

POSTER 31

Atlantic Sharpnose shark (*Rhizoprionodon terraenovae*) age and growth in the Gulf of Mexico

Presenter: Alicia Brown

Advisor: Dr. James Sulikowski

Determining age and growth characteristics of the Atlantic Sharpnose shark in the Gulf of Mexico using vertebral band counts to update life history parameters of changing populations. This study is important for updating previous outdated and conflicting studies, and ultimately aiding in establishing improved policies and management of this commercially exploited species.

POSTER 32

Investigating “Unstoppable Global Warming Every 1,500 Years” By Fred Singer and Dennis Avery: Checking the Sources

Presenter: Harley Neubauer

Advisor: Dr. Charles Tilburg

Source checking the book "Unstoppable Global Warming Every 1,500 Years" by Fred Singer and Dennis Avery.

POSTER 33

Characterization of Currents in the Biddeford Pool: A LaGrangian Study

Presenter: Kristen Falcinelli

Advisor: Dr. Charles Tilburg

This project investigates currents in the Biddeford Pool, a semi-enclosed body of water just south of the mouth of the Saco River in Maine. The Biddeford Pool is a unique area, as it fills with water during high tide and almost completely empties during low tide, exposing a large mud flat area. Since the Pool fills and empties with each tidal cycle, it is important to understand the currents responsible for this water movement in order to understand some human effects on intertidal and oceanic ecosystems and to understand the movement of invasive organisms that may alter the ecosystem in the Biddeford Pool and surrounding area.

POSTER 34

Effects of tidal cycle, river discharge, and wind velocity on the salinity of the Saco River, Maine

Presenter: Cassandra Elmer

Advisor: Dr. Charles Tilburg

Using CTD data obtained from Saco River cruises, river discharge data obtained from USGS, and wind velocity data from NOAA, plots of the salinity of the Saco River in terms of tidal cycle, discharge, and wind will be developed in MATLAB.

POSTER 35

Analysis of Polycystic Ovary Syndrome through an Evolutionary Perspective

Presenter: Kailey Perez

Advisor: Dr. Greg Zogg

Polycystic Ovary Syndrome (PCOS) is a metabolic disorder that causes infertility in women of reproductive age. It is expected that natural selection would eliminate genes associated with reduced fitness, however PCOS is still a prevalent condition today. Through an evolutionary perspective PCOS will be analyzed to explain this medical paradox PCOS creates.

POSTER 36

Postoperative Treatment for Adolescent Colorectal Cancer: A Case Report for Chronic Pain

Presenter: Samantha Shepard

Advisor: Dr. Edward Bilsky

This case report focuses on a male adolescent, T.L., who was diagnosed with stage 3 colorectal cancer at age ten, and has endured various treatments including chemotherapy and multiple invasive surgeries and is currently in remission. Presently, T.L. experiences chronic pain stemming from his surgical incision sites, which will intensify as he grows. This case report discusses the benefits and implications of the proposed treatment, myofascial release, aiming to improve range of motion, encourage movement of lymph and decrease pain levels.

POSTER 37

Determining peripheral mechanisms driving ongoing and breakthrough cancer-induced bone pain

Presenters: Jonathan Gentry, Cory Dearborn, Ian Imbert and Joshua Havelin

Advisor: Dr. Tamara King

We developed and characterized new measures of cancer-induced ongoing and breakthrough pain in a rat model of cancer-induced bone pain. Our data show that ongoing and breakthrough pain are mediated by distinct neurobiological mechanisms.

POSTER 38

Lactic acid bacteria reduce *Salmonella* Javiana-induced epithelial cell cytotoxicity and decrease pathogen virulence gene expression

Presenters: Dylan Fletcher, Lauren Gileau, Ryan Camire and Shea Goudreau

Advisor: Dr. Kristin Burkholder

Lactic acid bacteria (LAB) are nonpathogenic microbes found in fermented foods like yogurt, and which have positive effects on human gastrointestinal health. Here we report that several strains of LAB reduce infectivity of the gastrointestinal pathogen *Salmonella* Javiana by inhibiting *Salmonella*-induced cytotoxicity and limiting expression of *Salmonella* virulence genes.

POSTER 39

Anti-Staphylococcal activity of extracts from macroalgae *Ulva lactuca* is impacted by lunar phase of macroalgae harvest

Presenters: Cameron Russell, Erica Lloyd, Zachary Miller-Hope, Brandon Williams, Clay Bolduc, Jessica Meader and Fallon Weiss

Advisors: Dr. Kristin Burkholder and Dr. Amy Deveau

Methicillin-resistant *Staphylococcus aureus* (MRSA) is an important drug-resistant human pathogen for which treatment options are limited. We report that extracts obtained from the macroalgae *Ulva lactuca* inhibit the growth of clinically-important strains of MRSA, and that the inhibitory activity of the extracts is affected by lunar phase of algal harvest.

POSTER 40

CB2 receptor agonist induces breast cancer reduction via immune cells in-vivo

Presenter: Taylor Littlefield

Advisor: Dr. Katherine E. Hanlon

Cannabinoid receptor 2 agonist drugs are used in-vivo to manipulate macrophage differentiation from immunosuppressive M2 macrophages to pro-inflammatory and immune-stimulating M1 macrophages. Current hypotheses suspect that these M1 macrophages induce tumor-specific helper T-cell mediated responses against breast tumor cells and reduce overall tumor burden.

POSTER 41

Effects of osteoarthritis on hind limb weight bearing and bone microarchitecture in rats with or without access to voluntary exercise.

Presenters: Janell Lanpher, Luke Creisher and Rebecca Zakorchemny

Advisor: Dr. Glenn Stevenson

The effects of chemically induced osteoarthritis on hind limb weight bearing and bone microarchitecture was determined in rats with voluntary access to running wheels and in rats without access to running wheels (sedentary controls). Ex vivo microCT analysis was performed to assess morphological changes to distal femur/proximal tibia.

POSTER 42

Impact of Fibroblast Growth Factor 1 Expression on Behavior

Presenter: Victoria Eaton

Advisors: Dr. Deena Small and Dr. Woon Yuen Koh

The effect of over-expression of FGF1 transgene on behavior using tests that evaluate cognitive function, memory, and activity in mice. Results indicated mice over-expressing FGF1 transgene had tendencies consistent with Attention Deficit Hyperactivity Disorder (ADHD).

POSTER 43

The effect of the artificial sweetener, steviol, on carbohydrate and lipid metabolism in fat cells.

Presenter: Jessica Woolf

Advisor: Dr. Deena Small

Steviol is a dietary supplement used as a sugar substitute that may affect metabolism in fat cells. In this study we measured the impact of steviol on fat cell differentiation and metabolism.

POSTER 44

The effect of the insulin signaling pathway on the expression of the protein Jagged1 in adipocytes

Presenter: Meredith Capuco

Advisor: Dr. Deena Small

The Notch/Jagged1 and Insulin signaling pathways are both integral for the differentiation of adipose tissue. The purpose of this study is to determine if insulin regulates the expression of Jagged1.

POSTER 45

The effects of polybrominated diphenyl ether on fibroblast growth factor 1 expression

Presenter: Devon Martin

Advisor: Dr. Deena Small

Decabrominated diphenyl ether is a known environmental toxin and suspected obesogen. In this study we measure the effect of decabrominated diphenyl ether on the expression of fibroblast growth factor 1, a protein known to regulate adipocyte differentiation.

POSTER 46

The Effects of Polybrominated diphenylether on Stress Responses in Adipocytes

Presenter: Molly V. Wright

Advisor: Dr. Deena Small

This project attempts to examine the effects of PBDEs (found in flame retardants) in accordance with stress responses in living organisms through cell culture and biochemical analysis.

POSTER 47

Marine Natural Products from Maine Sea Lettuce Inhibit MRSA Growth

Presenter: Jessica Meader

Advisor: Dr. Amy Deveau

We have harvested sea lettuce from Biddeford Pool and extracted natural, antimicrobial proteins using methanol. These extracts have presented inhibition of MRSA growth, a bacterium responsible for severe infections.

POSTER 48

“Proteins with a Purpose: the Versatility of Elastin-like Polymers”

Presenters: Ryan Juneau and Meredith Capuco

Advisor: Dr. Eva Rose Balog

In the Balog lab we are engineering proteins for various materials and biotechnological applications. In this work, stimuli-responsive, “smart” protein polymers called elastin-like polymers (ELPs) are prepared for biophysical analysis and fused with different modular protein sequences to “link” their functions

POSTER 49

Effects of Single Base Deletions on DNA Hybridization on model Microarrays

Presenter: Michelle Pham

Advisor: Dr. John Stubbs

Energetic and structural data were gathered from molecular simulations of 25 base-pair DNA strands with three different deletion sites: beginning, middle, and end. The effects of temperature and surface binding were also studied.



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Oral Presentations

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Oral Presentations

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17th Annual Student Research Symposium

DECARY ROOM 202 *Listed in order of appearance*

ORAL PRESENTATION

12:30 PM - 12:50 PM

Exploring the Computational Potential of Cyclin-Dependent Kinases

Presenter: Megan Perry

Advisors: Dr. Craig Tennenhouse and Dr. Eva Rose Balog

I have combined my two majors, Biochemistry and Applied Mathematics, into a project where I have explored how cyclin-dependent kinases can function as biochemical computing machines. I have related the biochemical system to various discrete mathematical problems including Turing Machines, Rule 110 and Logic Gates.

ORAL PRESENTATION

12:55 PM - 1:15 PM

The Pythagorean Musical Scale: Infinite Circle of Fifths

Presenter: Chelsea Blake

Advisor: Dr. Michael Arciero

We generate a musical scale by successive multiplication of a base frequency by the Pythagorean fifth ratio, three-halves. Unlike the twelve-tone scale generated by the well-known even-tempered fifth, we obtain an infinite number of tones within the octave. Using a mathematical formulation we investigate the asymptotic distribution of tones as the number of tones approaches infinity.

ORAL PRESENTATION

1:20 PM - 1:40 PM

Comparative Analysis and Synthesis of Language Spectra

Presenter: Carlos Aguero

Advisor: Dr. Michael Arciero

The project seeks to use parametric models for analysis and synthesis of short segments of speech.

ORAL PRESENTATION

1:45 PM - 2:05 PM

The sPAIN Project: An Overview of Chronic Pain Treatment, and Consumer and Provider Feedback in Spain

Presenter: Samantha Shepard

Advisor: Dr. Edward Bilsky

This project looks in depth at the many facets of Spanish chronic pain treatment and the patient and provider experience. Pain is an example of a chronic disease that is amenable to helping assess the efficacy of a healthcare system, as the patient demographic is one of the most complex and vulnerable. The sPAIN Project looks at one of the healthiest demographics in the world to provide insight as to how one of the highest ranked universal healthcare systems is experienced and perceived by both consumers and providers.

ORAL PRESENTATION

2:10 PM - 2:30 PM

Characterization of Ongoing and Evoked Pain in Rat Temporomandibular Joint Osteoarthritis

Presenter: Sebastien Sannajust

Advisors: Ian Imbert and Dr. Tamara King

We characterized a rat model of TMJ osteoarthritis (TMJOA) in which monosodium iodoacetate (MIA) is injected into the TMJ joint space inducing cartilage loss and pain behaviors. We tested the hypothesis that MIA injection into the TMJ produces tactile hypersensitivity and ongoing pain.

ORAL PRESENTATION

2:35 PM - 2:55 PM

Craniopagus Conjoined Twins

Presenters: Annie McGregor Alecia Steidler and Cassie Kimball,

Advisor: Dr. David Sandmire

The aim of this presentation is to discuss one of the rarest forms of conjoined twins: craniopagus.

DECARY ROOM 205 *Listed in order of appearance*

ORAL PRESENTATION

12:30 PM - 12:50 PM

Shortnose Sturgeon in the Saco River Estuary: An Assessment of Critical Habitat

Presenter: Cameron Hodgdon

Advisor: Dr. James Sulikowski

The Saco River estuary is home to two endangered sturgeon species, the Atlantic and the shortnose, the latter of which there exists little information about. To designate the river as a critical habitat (location necessary for conservation) for this species, information about their movements in and out of the river is necessary and is currently being recorded using acoustic telemetry devices.

ORAL PRESENTATION

12:55 PM - 1:15 PM

Assessing reproductive steroid hormone concentrations in shark species captured off the coast of southern Florida.

Presenter: Erin Mohr

Advisor: Dr. James Sulikowski

This project uses steroid hormone analysis by radioimmunoassay to determine the amount of estradiol, progesterone, and testosterone present in the plasma of bull and blacktip sharks to better understand their life history characteristics.

ORAL PRESENTATION

1:20 PM - 1:40 PM

Assessment of the Winter Flounder (*Pseudopleuronectes americanus*) Stock of the Saco River Estuary, Maine

Presenter: Lars Hammer

Advisor: Dr. James Sulikowski

Since the 1980's winter flounder stocks have drastically declined due to overfishing and habitat loss. In order to better manage and further promote the rebuilding of stocks, estuarine utilization and life history studies of winter flounder will be continued in the Saco River Estuary through this project.

ORAL PRESENTATION

1:45 PM - 2:05 PM

Grey Seal Diet Composition

Presenter: Jessica Antonez

Advisor: Dr. Kathryn Ono

The Northwest Atlantic population of grey seals (*Halichoerus grypus*) has increased continuously since the 1980s, which has created concern over the potential for increased competition with commercial fisheries. This study was conducted to better understand the proportion that each species of fish make up in grey seal diet through the analysis of scat samples.

ORAL PRESENTATION

2:10 PM - 2:30 PM

Ecosystem modelling of food web dynamics explicitly considering impacts of climate change in a macrotidal coastal estuary

Presenter: Kylee DiMaggio

Advisors: Dr. Carrie Byron and Dr. Eric Chapman

In this study we modeled an ecosystem food web under different climate change scenarios including ocean warming, ocean acidification and species shifts.

ORAL PRESENTATION

2:35 PM - 2:55 PM

Effects of Temperature on Behavior and Brain Development of the Little Skate

Presenter: Melanie Kolacy

Advisors: Dr. James Sulikowski and Dr. Teresa Dzieweczynski

Recent research on the oviparous little skate has indicated that eggs deposited and incubated in warmer temperatures have shorter gestations and higher mortality rates before and after hatching. In order to better understand observed mortality in neonate little skates, this study implemented a series of behavioral tests to exam the possible linkage between increased ambient temperature and survivability.

DECARY ROOM 206 *Listed in order of appearance*

ORAL PRESENTATION

12:30 PM - 12:50 PM

Is Kind-of-Gay Okay? What American Sitcom Ratings Say About Public Perceptions of Homosociality

Presenter: Melissa A. DeStefano

Advisors: Dr. Joseph Habraken, Dr. Richard Peterson, and Dr. Michael Daley

American sitcoms have changed dramatically since the first ones premiered on the "small screen" in the 1950s, yet in many ways, the same sociocultural concepts are still being portrayed on televisions in our homes across America today. This presentation will explore the idea of homosociality and its complex relationship to homosexuality, focusing particularly on the potential reasons why homosociality is being more accepted on television today than in the 1950s.

ORAL PRESENTATION

12:55 PM - 1:15 PM

What Modern Family Tells The World About Modern Families

Presenter: Melissa A. DeStefano

Advisors: Dr. Joseph Habraken, Dr. Richard Peterson, and Dr. Michael Daley

Modern Family provides a complex view of today's American modern family. This presentation will explore the Pritchett-Dunphy-Tucker clan's communication, and how we as viewers understand the conflicted--yet functional--day-to-day lives of each individual family member and how they tie together as a whole. We will also explore how this show in particular helps us to understand families as structures, families as systems, and families as transactional relationships.

ORAL PRESENTATION

1:20 PM - 1:40 PM

Citizen's United: The Dismantling of Adam Smith's Democratic Capitalism

Presenter: Taylor Knapczyk

Advisor: Dr. Samuel McReynolds

A theoretical look at how Citizen's United v Federal Election Commission has forever changed Democratic Capitalism according to Adam Smith.

ORAL PRESENTATION

1:45 PM - 2:05 PM

From consciousness to conquest: An analysis of island literatures from an eco-critical post colonial approach

Presenter: Halie Pruitt

Advisor: Dr. Cathrine Frank

Ships have carried men from one land to another, in their wake uprooting more than trees. Cultures are replaced, people are sacrificed, and there is a physical effect on the land. Islands, with their rich indigenous populations, are uncommonly susceptible to the effects of colonization-- so much so that the ramification of island exploration can be seen through literature. This project examines the impact of colonialism and the accompanying isolation on the mental and physical health of islanders through Eco-critical and post colonial literary frames.

ORAL PRESENTATION

2:10 PM - 2:30 PM

Abhorring Abnormalities: Monstrosity as a Dehumanizing Process

Presenter: Alex Makucewicz

Advisor: Dr. Cathrine Frank

It is not enough that society coins the term Monster. Humanity insists upon the Monster never crossing the border between Them and Us. My discussion will be focused on societies adamant separation between the Monster and the rest of humanity and the process by which this occurs.

ORAL PRESENTATION

2:35 PM - 2:55 PM

Pediatric Pathographies: Giving Voice to the Pediatric Illness Experience

Presenter: Tom Rooney

Advisor: Dr. Jennifer Tuttle

I will be discussing the value of illness narratives and whose voices are and aren't being heard within the field, with a specific focus on pediatric illness narratives.

ORAL PRESENTATION

3:00 PM - 3:20 PM

Cubs, Otters, and Bears! Oh, my!

Presenter: Dustin Booska-Moulton

Advisors: Dr. Alicia Peters and Dr. Robert Alegre

Sex play in the homosexual community is ruled by heteronormativity. This session will explore how the subculture of Bears both challenges and reinforces those norms while also actively creating their own.

ORAL PRESENTATION

3:25 PM - 3:45 PM

What's on Tap: America's Poisoned Drinking Water

Presenters: Samantha Ainsworth, Katelyn Antoine, Elizabeth Caci, Sydney Helmbrecht, Brittany Just, Kelsey McGinnis, Kayleigh Neyer and Matthew O'Brien

Advisor: Heather Sadlier

This project focused on the causes and costs of the drinking water crisis in Flint, Michigan, the consequent short and long term health impacts for the city's residents, and similar health hazards imperiling people living in other locations in the United States.

DECARY ROOM 207 *Listed in order of appearance*

ORAL PRESENTATION

12:30 PM - 12:50 PM

Has the accuracy of political and historical context in war or foreign conflict films decreased over time and why?

Presenter: Scott Knox

Advisors: Dr. James Roche and Dr. Ali Ahmida

I will examine four films which were produced concerning the war in Vietnam as well as two Middle Eastern conflicts. Two films will be from the 1970's and 80's and two will be from 2012 and I will compare and contrast their accuracy and determine if anything has changed over time and if so, why?

ORAL PRESENTATION

12:55 PM - 1:15 PM

Bernie Sanders 2016 & The Allegory of The American Dream

Presenter: Jonathan Brown

Advisors: Dr. James Roche and Dr. Ali Ahmida

An analysis of Senator Bernie Sanders 2016 Presidential campaign, evaluating social, economic, and political factors which have propped his populist rise.

This analysis seeks to answer the question of whether Bernie Sanders' 'political revolution' is an aberration, a trendy hype, or whether the campaign will serve as a nation-wide catalyst for progressive socio-economic change.

ORAL PRESENTATION

1:20 PM - 1:40 PM

The Jester Has Left the Carnival? What a Joke!

Presenter: Sean Rogers

Advisor: Dr. James Roche

The project will be examining the political comedy of Jon Stewart and Richard Pryor, in relation to James Scott's concept of carnival, in attempts to show how political comedy reveals the hidden problems in society.

ORAL PRESENTATION

1:45 PM - 2:05 PM

The Struggle for a Modern Constitution: Absolutism, Colonialism, and Religion in Iran

Presenter: Megan Swenton

Advisors: Dr. James Roche and Dr. Ali Ahmida

Examining how Iran has dealt with modernity since 1905 by analyzing the 3 main social movements and the 1979 Iranian Constitution.

ORAL PRESENTATION

2:10 PM - 2:30 PM

The Modern Public Spectacle: pornography and Fifty Shades of Grey

Presenter: Cassidy Bayen

Advisor: Dr. James Roche

An exploration of Michel Foucault's theories on the public spectacle and how it proliferates in the modern day through pornography and Fifty Shades of Grey.

DECARY ROOM 208 *Listed in order of appearance*

ORAL PRESENTATION

12:30 PM - 12:50 PM

The Effect of Human Social Cues on Shelter and Day Care Dogs' Ability to Accurately Respond.

Presenter: Sara DeAngelo and Emily Cook

Advisor: Dr. Teresa Dzieweczyński

The aim of our study is to look at how different human social cues can be influential in a dog's response to a target location with a hidden treat. We went farther to look at this in both shelter and day care dogs to determine if there was any significant difference between the two.

ORAL PRESENTATION

12:55 PM - 1:15 PM

The effects of water temperature on locomotion and social behavior in Goldfish (*Carassius auratus*)

Presenters: Rachael Romain and Tess Perkins

Advisor: Dr. Teresa Dzieweczyński

We looked at the effects of three different water temperatures on the activity level (locomotion) and shoaling (social behavior) in goldfish.

ORAL PRESENTATION

1:20 PM - 1:40 PM

Service Dog Paws and Personality

Presenter: Brittney Logan

Advisor: Dr. Teresa Dzieweczyński

Paw preference and personality was assessed in NEADS service dogs in order to determine if there is a correlation between the two.

ORAL PRESENTATION

1:45 PM - 2:05 PM

Aggression in female Betta Fish (*Betta splendens*)

Presenter: Amelia Morin

Advisor: Dr. Teresa Dzieweczyński

In my project, I observed the aggressive behaviors of a female Betta fish when she has previously seen her opponent react to another female. The subject female would observe the interactions of two females and then face either the winner or loser of that interaction or she would face a female that had never been paired with another (the control).

ORAL PRESENTATION**2:10 PM - 2:30 PM****The Effect of Light on Aggressive Behaviors in Male Betta Fish (*Betta splendens*)***Presenter: Cassie Desrochers**Advisor: Dr. Teresa Dzieweczynski*

The goal of this project is to see if housing Betta fish under colored light (red, green, or white) would have an effect on their aggressive behaviors when faced with another male *Betta* fish.

ORAL PRESENTATION**2:35 PM - 2:55 PM****“Owner of a Lonely Heart”: Romantic-threat Increases Pricing of Products***Presenter: Janelle Sherman**Advisor: Dr. Julie Peterson*

Examining how romantic-threat predicts the amount females are willing to pay for cosmetics (e.g. lipstick, foundation, mascara, and anti-aging cream), the results revealed that females exposed to a romantic-threat (vs. control condition) are willing to pay significantly more for these cosmetic products. We hypothesize that, because culture has tied female romantic-value with cosmetics, females may be using cosmetics as a re-affiliation tool following romantic rejection.

ORAL PRESENTATION**3:00 PM - 3:20 PM****Hookup Behavior in College Men: Relationships with Child Abuse, Hostile Masculinity, and Rape Perpetration***Presenter: Benjamin Katz**Advisor: Dr. Patricia Long.*

This study examined college men's hookup behavior and how it relates to childhood physical and sexual abuse, hostile masculine attitudes, and the perpetration of rape.

DECARY ROOM 212 *Listed in order of appearance*

ORAL PRESENTATION**12:30 PM - 12:50 PM****Effects of Micro Beads on Feeding Activity and Behavior in Feeder Guppies.***Presenters: Sarah Tramontozzi and Sarah Bedard**Advisor: Dr. Zach Olson*

Testing feeding behaviors and activities under the environmental pressure of having microbeads in the environment.

ORAL PRESENTATION**12:55 PM - 1:15 PM****Use of prey scent as enrichment for captive bobcats (*Lynx rufus*) and Canadian lynx (*Lynx canadensis*)***Presenters: Cathleen Steinbeiser and Anthony Berube**Advisor: Dr. Zach Olson*

Enrichment items scented with rabbit odors were given to captive bobcats and Canadian lynx. These were compared to unscented enrichment items in their effectiveness at decreasing stereotypic behaviors and increasing visibility in enclosures.

ORAL PRESENTATION

1:20 PM - 1:40 PM

Habituation to a novel stimulus in Louisiana crayfish

Presenter: Noelle Baker

Advisor: Dr. Zach Olson

My research entailed tapping a crayfish on its back for variable amounts of time to see how long or if they would become habituated. I also did a second condition where another crayfish was present in the tank during the tapping to see if that had any effect on their hyperawareness.

ORAL PRESENTATION

1:45 PM - 2:05 PM

Social Learning in Dogs

Presenters: Katherine Grondin and Bethany White

Advisor: Dr. Zach Olson

This project tests the social learning capabilities in dogs. Trials include having one dog watch another dog find a treat, and then allowing the observing dog to find the treat afterwards. Time differences between the searching dog and observing dog to find the treats will be compared.

ORAL PRESENTATION

2:10 PM - 2:30 PM

Crayfish Fight Club: Fight Dynamics in the Freshwater Crayfish *Cambarus robustus*.

Presenters: Rebekah Erwin and Kelly Leger

Advisor: Dr. Zach Olson

We looked at which behaviors occur most often in aggressive bouts between male crayfish and whether the size of the crayfish played a role.

ORAL PRESENTATION

2:35 PM - 2:55 PM

Habitat Selection in *Acheta domesticus*

Presenters: Tori Doty and Kelsey Kansanniva

Advisor: Dr. Zach Olson

This study tested habitat selection across age and sex in crickets.

ORAL PRESENTATION

3:00 PM - 3:20 PM

One cat, two cat; right paw, left paw: Paw preference in domesticated house cats

Presenter: Jordyn LeBlanc

Advisor: Dr. Zach Olson

This project for Advanced Research Methods anticipates the goal of the study to determine if there is a dominant paw preference in domesticated house cats.

ORAL PRESENTATION

3:25 PM - 3:45 PM

Effect of Temperature on the Foraging Behavior of (*Vanessa cardui*) caterpillars

Presenters: Sarah Fleischmann and Megan Forgetta

Advisor: Dr. Zach Olson

The purpose of our study is to investigate the possible impacts of climate change on insect populations. We have examined the effects of increasing temperature on the foraging behavior of Painted Lady Butterfly caterpillars, *Vanessa cardui*.

Time	Room 202	Room 205	Room 206	Room 207	Room 208	Room 212
12:30-:35	Perry	Hodgdon	DeStefano	Knox	DeAngelo and Cook	Tramontozzi and Bedard
12:35-:40						
12:40-:45						
12:45-:50						
12:50-:55						
12:55-1:00	Blake	Mohr	DeStefano	Brown	Romain and Perkins	Steinbeiser and Berube
1:00-:05						
1:05-:10						
1:10-:15						
1:15-:20						
1:20-:25	Aguero	Hammer	Knapczyk	Rogers	Logan	Baker
1:25-:30						
1:30-:35						
1:35-:40						
1:40-:45						
1:45-:50	Shepard	Antonez	Pruitt	Swenton	Morin	Grondin and White
1:50-:55						
1:55-2:00						
2:00-:05						
2:05-:10						
2:10-:15	Sannajust	DiMaggio	Makucewicz	Bayan	Desrochers	Erwin and Leger
2:15-:20						
2:20-:25						
2:25-:30						

Time	Room 202	Room 205	Room 206	Room 207	Room 208	Room 212
2:30-:35						
2:35-:40	McGregor, Steidler and Kimball	Kolacy	Rooney		Sherman	Doty and Kansanniva
2:40-:45						
2:45-:50						
2:50-:55						
2:55-3:00						
3:00-:05			Booska- Moulton		Katz	LeBlanc
3:05-:10						
3:10-:15						
3:15-:20						
3:20-:25						
3:25-:30			Ainsworth, Antoine, Caci, Helmbrecht, Just, McGinnis, Neyer and O'Brien			Fleischmann and Forgetta
3:30-:35						
3:35-:40						
3:40-:45						
3:45-:50						
3:50-:55						
3:55-4:00						
4:00-:05						
4:05-:10						