17th Annual Student Research and Scholarship Symposium

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

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
                 Refreshments available on the second floor of Decary Hall

12:30pm-4:00pm  CAS Oral Presentations
                 Decary 202, 205, 206, 207, 208, 212
                 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
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 17α-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 17α-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 17α-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 Portrais 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 17α-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 though 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.
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.

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.

“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.

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.
17th Annual Student Research and Scholarship Symposium

Oral Presentations

May 6th, 2016 | 12:30-4:00pm
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.

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.

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.

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.

DECAY 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. Cameron Hodgdon
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.
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.

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.

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 examine the possible linkage between increased ambient temperature and survivability.

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.

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.
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.

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.

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.

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.

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.
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

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 Dzieweczynski
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.

The effects of water temperature on locomotion and social behavior in Goldfish (Carassius auratus)
Presenters: Rachael Romain and Tess Perkins  
Advisor: Dr. Teresa Dzieweczynski
We looked at the effects of three different water temperatures on the activity level (locomotion) and shoaling (social behavior) in goldfish.

Service Dog Paws and Personality
Presenter: Brittney Logan  
Advisor: Dr. Teresa Dzieweczynski
Paw preference and personality was assessed in NEADS service dogs in order to determine if there is a correlation between the two.

Aggression in female Betta Fish (Betta splendens)
Presenter: Amelia Morin  
Advisor: Dr. Teresa Dzieweczynski
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).
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.

“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.

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.

Use of prey scent as enrichment for captive bobcats (*Lynx rufus*) and Canadian lynx (*Lynx canadensis*)
Presenter: 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.
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.

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.

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.

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.

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.

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*. 
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