



Class of May, 2011

UNIVERSITY  
HONORS  
SCHOLARS



EASTERN  
CONNECTICUT  
STATE UNIVERSITY



Eastern Connecticut State University  
83 Windham Street  
Willimantic, CT 06226

*Connecticut's Public Liberal Arts University*



## *ACKNOWLEDGEMENTS*

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Successful thesis projects are typically the result of the contributions of many people; but none are more important than those of the thesis advisor. The following professors contributed time, energy, and expertise in the oversight of Honors Thesis projects during the 2010-2011 academic year.

Professor Sharon Butler, Department of Visual Arts  
Professor Dennis Canterbury, Department of Sociology  
Professor Edmond Chibeau, Department of Communications  
Professor Elizabeth Cowles, Department of Biology  
Professor Daniel Donaghy, Department of English  
Professor Kimberly Dugan, Department of Sociology  
Professor Phillip Elliott, Department of Biology  
Professor Deirdre Fitzgerald, Department of Psychology  
Professor Peter Johnson, Department of Mathematics  
Professor Terry Lennox, Department of Visual Arts  
Professor Jennifer Leszczynski, Department of Psychology  
Professor William Salka, Department of Political Science  
Professor Patricia Szczys, Department of Biology  
Professor Christopher Torockio, Department

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Appreciation is also due the following members of the University Honors Council who contributed their time, energy, and expertise as Second Readers of honors theses.

Professor Jennifer Brown, Department of Economics  
Professor Peter Drzewiecki, Department of Environmental Earth Science  
Professor Madeleine Fugere, Department of Psychology  
Professor Richard Jones-Bamman, Department of Performing Arts  
Professor Denise Matthews, Department of Communication  
Professor Maureen McDonnell, Department of English

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Zosia Carlquist, Honors Program Secretary,  
for her creative and skillful editing of this booklet.

*INTRODUCTION*

The students featured on the following pages are to be congratulated for their outstanding academic achievements. These students have responded exceptionally well to the challenges and opportunities afforded them through their participation in the University Honors Program, with their efforts culminating in the production of an original work of scholarship. Their respective accomplishments reflect well on the University, the academic departments of their respective majors, and the Honors Program. The quality of the theses summarized on the following pages continues a growing tradition of quality undergraduate scholarship produced by Honors students and sets a high standard for future Honors graduates.

Phillip F. Elliott  
Director  
University Honors Program



*Achievement*





**ELIZABETH THIBAUT**

Major: Mathematics

Pursue Graduate Degree in Industrial Statistics at the University of Connecticut

**Thesis Title:** Meta-Analysis of the Motivation to Learn Mathematics

Attribution is a cognitive theory of motivation in which an individual identifies a perceptual explanation for experiencing a success or failure. My thesis project is a meta-analysis of the attributions for success and failure of students ranging from kindergarten to graduate school in regards to mathematics. The analysis consists of combing the data from many published studies related to math attributions, converting the data into a statistic called an effect size, which can then be analyzed to draw conclusions about the trends of motivational attributions of students as a function of age and gender. The goal of the study is to gain a better understanding of how students are motivated in the math classroom, whether males and females have different attribution perceptions, and whether the motivations change over time.



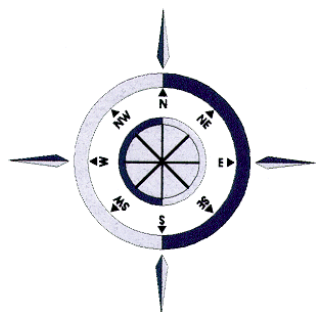
**JASON CUSTER**

Major: English  
Minor: Writing

Plans to Attend Florida State University

**Thesis Title:** You Remind Me of Me

For my thesis I wrote a novella that explores interpersonal relationships and how/where we come from factors into where we will go in life. It started as a novel of short stories but eventually transformed into its current state, a novella focusing on one character's struggle to discern his life's path. My thesis is a coming of age tale that touches on themes such as family and isolation.



**LEAH HANRAHAN**

Major: Individualized Major in Cognitive Neuroscience

Future Plans are Undecided

**Thesis Title:** Examination of the Effects of the Sensory Diet on a Child with Autism

My thesis examined the behaviors of an elementary school aged child with autism spectrum disorder. A widely used treatment, sensory diet (particularly body brushing and joint compression), was manipulated to determine if this child's learning gains and behaviors that interfere with learning changed during its absence or presence. The behaviors examined were correct responses, noncompliance, and self-stimulatory behaviors. Data were collected for eight weeks and was coded and examined in graphs. There was no significant change in behavior in response to the treatment.



**PATRICK HARDY**

Major: Political Science  
Minor: Economics

Will Pursue a Masters Degree in Public Administration at the University of Connecticut

**Thesis Title:** Determinants of Initiative Support for Affirmative Action

My thesis is a quantitative study using county level data to see what determines how people vote regarding affirmative action policies. Three state initiative votes were used and several variables including party, race, and income were tested to find if there were any significant correlations between the above variables and voting tendencies regarding affirmative action. Regression analysis revealed that party, income, and education level were the most influential factors affecting how people voted on an affirmative action initiative.



**KYLE ROCKETT**

Major: Biology  
Cognitive Neuroscience

Plans to Attend Medical School Fall 2012

**Thesis Title:** Measuring Extra-Pair Paternity in Common Terns, *Sterna Hirundo*

I measured the rate of extra-pair paternity in common terns using the polymerase chain reaction to amplify species-specific microsatellites. The resulting allele lengths were recorded and compared to the social parents of each chick. The results were congruent with the observed monogamy of common terns and provided molecular data in support of this hypothesis.



**MICHELLE HARRIS**

Major: Biology  
Minor: Computer Science

Pursue a Career in the Medical Services

**Thesis Title:** Effect of Adjuvant Use On Imidacloprid Absorption

My study focused on the absorption effects of four adjuvants, Pentra-Bark, Tween 80, Silwet-77, and Propylene glycol used in combination with imidacloprid insecticide. I utilized ELISA plates to detect the concentration of imidacloprid that had translocated into the test plants, particularly into the leaves. We found that Pentra-Bark and Silwet were able to significantly increase the amount of imidacloprid present in the leaf samples. The data collected has the potential to be used in future studies focused on the systemic protection of trees affected by boring insects such as the Asian long horned beetle, emerald ash borer, and hemlock woolly adelgid.



**JESSICA RUDDY**

Major: Biology

Pursue Masters Degree in Student Development in Higher Education at Central Connecticut Sate University

**Thesis Title:** Modeling Food Web Dynamics

A trophic pyramid is the visual representation of the flow of energy through an ecosystem. My thesis work has been composed of modeling a dynamic trophic pyramid using STELLA simulation software. My model focuses on the trophic relationships of a tropical plant, a mutualistic ant species protecting the plant from insect herbivory, and a beetle species that preys on ant larvae. I used the capabilities of the software to manipulate variables within the model to gain a clearer understanding of the relative importance of omnivory and generalist feeding species on the stability of the study system.



**SARAH LARSON**

Major: Visual Arts  
Concentration: Digital Art & Design

Plans to work as a Graphic Designer/Web Designer for Miranda Creative

**Thesis Title:** Unduality—A Study in Traditional Art and the ‘net

My project was intended to cultivate my skills in web design and development, while studying the marriage of digital and traditional art. I charged myself with a series of paintings, then observed and recorded the creative process with the use of a blog that I designed and coded. I used the web as a medium for creating and showcasing both my process and final pieces



**SARAH MCGUIRE**

Major: Visual Art  
Concentration: Digital Art & Design  
Minor: Mathematics

Plans to work as an Administrative Assistant

**Thesis Title:** The Art of Writing a Children’s Book

My thesis project involved writing and illustrating a children’s book, incorporating what I had learned in my art classes about illustration, design, page layout, and drawing. This resulted in a 14-page book titled “How the Elephant Got Its Trunk,” illustrated in colored pencil, then imported into Adobe Photoshop to enhance the artwork.



**LAUREN HICKEY**

Major: Business Administration  
Concentration: Marketing

Pursue an MBA at Providence College

**Thesis Title:** Economic Development in Belize in Respect to the Agri-Tourism Industries

My thesis project entailed a case study into what is hindering economic growth in the third-world nation of Belize. I visited Belize twice and gathered primary data from the citizens for my research. Along with archival and computer research, I utilized interviews that I conducted while in the country. My hypotheses for the lack of continued economic growth included a lack of infrastructure, environmental degradation, and a lack of government policies. These hypotheses turned out to be correct, as my recommendations for sustained funding and cooperative collaboration reflect those notions.



**VERONICA HYDE**

Major: Sociology & Applied Relations  
Minor: Anthropology, Philosophy

Anticipates Joining the Peace Corps, Followed by Pursuit of a Graduate Degree in Anthropology or Public Health

**Thesis Title:** An Exploration of Emotion Management in the Social Services

My project consisted of exploratory research about the presence and role of emotion management in the social service sector. Data was collected and analyzed from in-depth interviews and participant observations to help develop an image of how emotion management is manifested in this setting; this data was used to assess the impact of managed emotions on both individual and organizational levels. This research took into account the experiences of staff and volunteers representing a variety of different social service organizations, developing a composite image of their unique experiences and raising themes aimed to promote continued discourse on the intersection of emotion management and the social service realm.



**ASHLEE JAMES**

Major: English  
Certifications: Elementary Education

Plans to Teach Followed by Pursuit of  
Certification as a Reading Specialist

**Thesis Title:** Not Home Yet

My thesis is a combination of 20 original poems, as well as a craft essay explaining the process of writing the thesis. The process involved reading many poets' works, as well as essays about writing poetry.

Finally, most of the process involved taking what I had learned from all my reading and using that knowledge to write original poems, followed by extensive editing and revision.



**MICHELLE KACZYNSKI**

Major: Psychology

Pursue a Masters Degree in Clinical Psychology  
with a Concentration in  
Post-Traumatic Stress Disorder

**Thesis Title:** Age and Gender Differences in the  
Conceptualization of Romantic Love

My thesis project addresses age and gender differences in the conceptualization of romantic love.

Love is a multidimensional term that has no universal definition. This makes defining and fully comprehending love very difficult. In order to better understand how individuals conceptualize romantic love, I conducted a study using the social constructionist approach (society influences our perceptions) with males and females from the ages of 18-91 years. Through surveys, I was able to gain valuable knowledge to contribute to the seriously lacking research on conceptualizing love.



**KARL LAMOTHE**

Major: Biology

Accepted to Graduate Programs at the University of  
Maine and the University of North Carolina

**Thesis Title:** Genetic Variation and Population  
Structure of Black Terns in Europe

Over the past century, there has been a widespread decline in black tern populations worldwide. In order to help assist in making conservation efforts, I investigated the population dynamics of European black terns using molecular techniques. I used data from seven microsatellite markers and 70 breeding individuals from populations in Europe (France, Netherlands, Ukraine and Latvia) to describe the genetic variability and population structure of this subspecies. These parameters were also used to make preliminary comparisons between the European and North American subspecies (*niger* and *surinamensis* respectively). Overall, my research reports that the European populations have retained genetic variation despite population declines. My findings support banding records indicating that there is moderate genetic structure among breeding populations.



**EMILY JOYCE**

Major: Communications  
Minor: History, Writing

Plans to attend Law School,  
Focusing on Intellectual Property Law

**Thesis Title:** The Script

My honors thesis is a culmination of my interest in historical research and love of creative writing. I have studied two historical movements in theater, Elizabethan Theater and Theater of the Absurd, and incorporated both styles into my

own play. I have written a play that explores the very different conventions of these movements, as well as the difficulties and struggles authors face.