



Class of May, 2010

UNIVERSITY
HONORS
SCHOLARS



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Eastern Connecticut State University
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Connecticut's Public Liberal Arts University



ACKNOWLEDGEMENTS

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 should be recognized for their conscientious mentoring of their respective Honors Scholar.

Professor Charles Booth, Department of Biology
Professor James Diller, Department of Psychology
Professor Madeleine Fugere, Department of Psychology
Professor Peter Johnson, Department of Mathematics
Professor Ross Koning, Department of Biology
Professor Margaret Letterman, Department of Psychology
Professor Barbara Liu, Department of English
Professor Qimin Liu, Department of Visual Arts
Professor Darren Robert, Department of Health and Physical Education
Professor Lauren Rosenberg, Department of English
Professor William Salka, Department of Political Science
Professor Russell Sampson, Department of Physical Sciences

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 Jeanelle Day, Department of Education
Professor Madeleine Fugere, Department of Psychology
Professor Richard Jones-Bamman, Department of Performing Arts
Professor Maureen McDonnell, Department of English

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

INTRODUCTION

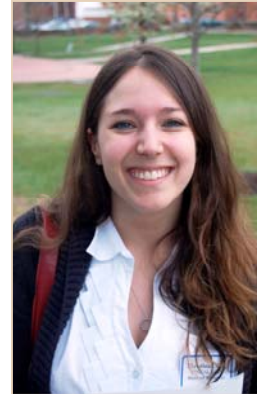
The students featured on the following pages are to be congratulated for their outstanding academic achievements. These students have responded exceptionally well to the challenges and opportunities afforded them through their participation in the University Honors Program, with their efforts culminating 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





CHRISTINA M. CIACCI

Major: Visual Arts
Concentration: Painting and Drawing
Minor: Art History

Plans to Attend Graduate School

Thesis Title: My Generation: A Series of Young American Portraits

As an artist portraying people has always intrigued me; therefore, for my thesis I wanted to explore portraiture in some way. I decided that the best individuals to portray would be people my age from all different backgrounds and cultures. The project involved selecting individuals aged 18-25 years old to portray. I interviewed and photographed the participants, attempting to get a candid shot. I then painted their portraits in oil paint trying to portray their likeness, while also creating my own expressive style. The end result is a series of five portraits that make up the series *My Generation: A Series of Young American Portraits*.



MARGARET L. DEPTULA

Major: Mathematics
Minor: Elementary Education

Anticipates being an
Elementary School Teacher

Thesis Title: Structural Equation Modeling and its Application to Data on Learning Styles and Beliefs

Structural Equation Modeling is a complex analysis method that compares the relationships between several variables at the same time. With an interest in whether or not students' beliefs about learning affect the way they learn, I performed several factor analyses on data I collected from Eastern students about their learning styles. This thesis displays the relationships among these variables and determines how learning styles and epistemological beliefs are related when it comes to students' academic achievement.



MOLLY E. DUNN

Major: Mathematics
Minor: Business Administration

Plans to work at The Travelers
as a member of the Product and Pricing
Development Program in Hartford, CT

Thesis Title: Insurance Industry Catastrophe
Modeling: Examination of Long-Term vs. Near-
Term Hurricane Models & Analysis of Intensity
Forecast Errors for New England Hurricanes

The research for my thesis examined the basic catastrophe model used by insurance companies to evaluate probable financial risk related to hurricanes. To explore this topic further I compared the traditional, long-term catastrophe models against new, near-term models, introduced to the industry in 2006. The near-term models focus on short-term assessments of the frequencies of hurricanes over a five-year period. The second portion of my thesis presents an analysis of intensity forecast errors, recorded by the National Hurricane Center, for New England Hurricanes using linear regression analysis and an analysis of covariance.



CHRISTINA M. GLASS

Major: English
Certification: Secondary Education

Plans to Attend Graduate School

Thesis Title: Narrative of Experience: A Rhetorical
Analysis of Gender and Student Writing

I explored gender and writing as the subject of my Honors Thesis. I was interested in the idea that men and women may write differently and that there may be something inequitable about the way these writing differences are gendered. My project is based on a “paired fiction writing” activity designed by compositionist and transgender theorist Jonathan Alexander. Paired fiction involves students divided into pairs working collaboratively to create a fictional story through a series of prompts. In my assignment students constructed fictional stories from what they perceive to be the experiences and assumptions of someone of an opposite gender. My analysis of the narratives revealed some of the stereotypes, clichés, and familiar tropes upon which many narratives depend for their intelligibility and accessibility to a variety of audiences. In revealing these assumptions, I hoped to achieve among the students and myself an understanding of the hidden gendering in their writing and ideas.



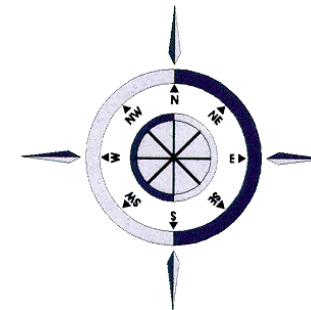
KELSEY WATSON

Major: Health and Physical Education
Teacher Certification: K-12

Pursue Graduate School in Health Education

Thesis Title: Physical Education Programs
and Scores on the Physical Fitness Assessment:
Is there a Connection?

The State Department of Education in Connecticut provides guidelines and recommendations for physical education in schools. The recommendations provided come from the National Association of Sport and Physical Education. The problem however, is that there are very minimal requirements in the state and therefore many schools do not even come close to those guidelines. This study examined several school districts’ physical education programs and their respective scores on the Connecticut “Second Generation” Physical Fitness Assessment. Physical educators were surveyed from a variety of districts in Connecticut who had the higher percentages of students passing all four tests and those who had the lower percentages of students passing all four tests. The purpose of the study was to identify the dissimilarities between the districts that could account for the large difference in the percentage of students passing the Connecticut "Second Generation" Physical Fitness Assessment.





KIM M. THOMASSEN-STRAND

Major: Psychology

Pursue Graduate Degree in Clinical Psychology

Thesis Title: A Cross Cultural Study of Death Anxiety among University Students

I studied death anxiety across three cultures as a correlate of spirituality and religious membership. Data were collected from college students from universities in the U.S. (Eastern Connecticut State University), Sweden (Lund University), and Thailand (Chiang Mai Rajabhat University). Participants from Thailand expressed lower levels of death anxiety than participants from the U.S. or Sweden, members of the Buddhist religion showed less death anxiety than members of a Christian denomination or Agnostics, participants who belonged to an organized religion and expressed intrinsic religious motivation conveyed lower levels of death anxiety than participants who belonged to an organized religion and expressed extrinsic religious motivation, and lastly, in contrast to my hypothesis, participants with higher levels of spirituality experienced more death anxiety.



KERRI A. WALSH

Major: English

Pursue Certification in Special Education and Master's Degree in Elementary Education

Thesis Title: Hatching the Cuckoo's Egg Tradition: Analyzing John Wijngaards' Rhetoric

For my thesis, I analyzed the rhetoric surrounding the debate over ordaining women as priests within the Roman Catholic Church. My focus was on one scholar in particular, John Wijngaards, who is an advocate for the ordination of women as priests. I examined Wijngaards' rhetoric which consisted of appeals to authority, evidence, and time. I discovered Wijngaards' uses of a unique combination of these three strategies in order to make his argument. Overall, I found Wijngaards' rhetoric creates a persuasive argument advocating for the ordination of women within the Roman Catholic Church.



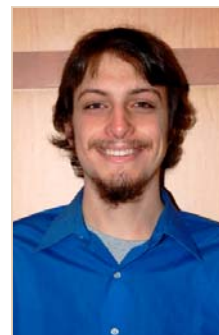
DOUGLAS W. HACKENYOS

Major: Biology
Minor: Biochemistry

Accepted to Doctor of Pharmacy Program at the Massachusetts College of Pharmacy and Health Sciences-Worcester

Thesis Title: The Effects of Prolactin on Osmoregulatory Gill Tissue in Freshwater-Acclimated Atlantic Salmon Pre-smolts

I focused my research on anadromous Atlantic salmon (*Salmo salar*), which migrate between freshwater and saltwater environments. Current understanding of the physiological mechanisms involved in the preparatory process of this movement, known as smoltification, is limited. It is believed that various hormones produced by the neuroendocrine system, such as prolactin, play a significant role in osmoregulation. To better understand the effects of prolactin in smoltification, Atlantic salmon pre-smolts were supplemented with different concentrations of prolactin and gill tissues were analyzed using immunohistochemistry techniques. It was found that prolactin supplementation resulted in a decrease in the number of chloride cells suited for saltwater adaptation and an increase in the freshwater isoform, essentially working against gill preparations typically seen in smoltification.



PETER F. HILDEBRAND

Individualized Major: Cognitive Neuroscience
Minor: Writing

Pursue a PhD in Neuroscience

Thesis Title: A Decontextualization Paradigm Regarding the Episodic/Semantic Memory Distinction

I analyzed the relationship between episodic and semantic memory in my thesis. Episodic memories are those that have personal context (your most recent birthday, for example) while semantic memories are facts (the year that Columbus sailed the ocean blue, for example). It had previously been speculated by psychologists that each of these forms of memory is governed by a different mental process. My research, collected from 69 undergraduate students, found that participants were significantly more likely to remember the episodic details of facts that they had heard once or twice than of facts that were heard many times. This suggests, contrary to previous speculation, that memories all start off as episodic, and then are decontextualized the more that they are repeated.



MELISSA A. INGOGLIA

Major: Psychology
Minor: Sociology

Pursue MS Degree in School Counseling
at the University of Connecticut

Thesis Title: Androgyny and Conformity
in Female College Students

The purpose of this thesis was to study females classified as masculine, androgynous, feminine, or undifferentiated using the Bem Sex Role Inventory (BSRI).

Differences in dominance levels, self-esteem scores, and attitudes towards sex-appropriate behavior were looked at between these groups. The concept of conformity was also examined with some of the females. It was hypothesized that masculine and androgynous females would conform the least and have higher levels of dominance, and self esteem, and have less traditional views of sex-appropriate behavior, while feminine and undifferentiated females would conform the most, and have lower levels of dominance, and self esteem, and have more traditional views of sex-appropriate behavior. Only one participant conformed, and it was found that masculine females differed significantly from undifferentiated females in terms of self-esteem.



RACHEL E. SCHMID

Major: Biology

Plans to attend the University of Connecticut's
Certification in Nursing Program

Thesis Title: The effect of the essential oil and its
components from *Melaleuca alternifolia* on
endospore germination in *Bacillus cereus*

The oil of *Melaleuca alternifolia*, tea tree oil, has been shown to exhibit broad spectrum antimicrobial activity. By using *Bacillus cereus* as a model organism for *B. anthracis*, tea tree oil's ability to inhibit germination of endospores along with the component(s) of the oil responsible for this action was tested. Tea tree oil and three of the eight components tested were able to inhibit endospore germination. Synergisms were observed between many of the tested components. Parallel work with *B. anthracis* endospores is suggested as well as altered concentrations for some of the required standards for commercial production of the oil.



JOHN P. LAPPIE

Major: Political Science
Minor: History

Will pursue PhD at University
of North Carolina-Chapel Hill

Thesis Title: The Partisan Impacts
of Legislative Reform

In recent years many state legislatures have adopted legislative reforms to try and improve the political system. Those critical of these reforms typically pronounce

that the reform would electorally benefit one of the major parties over the other. While many political scientists have theorized about the partisan impacts of these reforms, research has, on the other hand, centered on the effectiveness of reforms in achieving their stated aims. This thesis examines the partisan impact on state legislative elections from 2004-2008 of five legislative reforms: legislative professionalism, term limits, campaign financing disclosure laws, public financing of political cam-



CARISSA SIROIS

Individualized Major: Cognitive Neuroscience
Minor: Psychology

Pursue PhD in Cognitive Neuroscience

Thesis Title: Performance Differences
on the Stroop Color-Word Task in
ADHD and non-ADHD Individuals

Approximately five percent of children in the U.S. are diagnosed with attention deficit hyperactivity disorder (ADHD). Many of these children continue to exhibit symptoms of the disorder throughout adolescence and into adulthood. The symptoms of ADHD are thought to be caused by deficits in higher order cognitive processes called executive functions. The Stroop Color-Word task is a measure of executive functions. Specifically, it measures one's ability to inhibit interference from task-irrelevant stimuli, and individuals with ADHD should therefore perform worse on this task than controls. My thesis was unique from previous research on this topic because it looked specifically at college students, and it used two versions of the Stroop test.