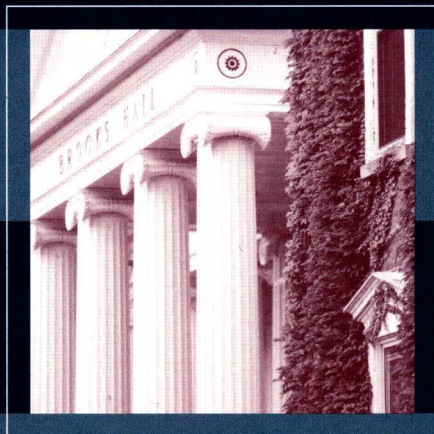


SENIOR PROJECT CELEBRATION



ALLEGHENY COLLEGE
2005

THE SENIOR PROJECT

Since the College's first commencement in 1821, Allegheny students have showcased their exceptional academic achievements through a senior capstone experience of one kind or another. At times it involved an oral defense, at others a written thesis. The notion of a written Senior Project coupled with a comprehensive oral examination first appeared in the 1942 College Catalogue. In the 1970s, oral examinations shifted from a general defense of disciplinary expertise to a more focused verbal presentation of the Senior Project findings.

In keeping with Allegheny's commitment to provide students with a liberal arts education of high standards, the Senior Project is not a mere report or semester paper, but a significant piece of independent study, research or creative work conducted under the supervision of one or more faculty members. The outcome of a Senior Project is more than a grade or a written document; for the student it often results in a new way of looking at complex problems and inspires an appreciation for the power of ideas that might previously have seemed like abstract concepts in a textbook. Often it can be a pivotal moment where a student realizes his or her own abilities and potential.

The Senior Project provides students with an opportunity to integrate discipline-specific scholarship with the communication and research skills necessary for professionals in the 21st century. During their first year at Allegheny, students write, speak, and research frequently in their first-year seminars. By the sophomore year they are ready to undertake the complexities of writing and speaking in a specific discipline. They further hone these disciplinary communication skills in a junior seminar, the final preparatory phase for the Senior Project. By the senior year, students are sufficiently prepared to undertake a scholarly endeavor approximating those experiences they will face as professionals in their field.

The culminating experiences of the Senior Project are as varied as the disciplines that produce them, from recitals, performances, and exhibits to written and oral presentations on laboratory research. Many illustrate unusual combinations of disciplines, interests and skills. The Senior Project Celebration offers an open forum for students to present their projects, allowing seniors to refine their skills in presenting to a broad audience and share ideas with other students and the campus community.

QUICK SCHEDULE

1:00–1:15 pm

“Worthy of Paradise”: The Reputation of Lorenzo Ghiberti and His Gates of Paradise (1425–1452)

Phoebe Chadwick-Rivinus

Major: Art History / Minor: History

Room 206, Campus Center

Benchmarking and Comparison of File Systems for Linux

Thomas Richardson

Major: Computer Science

Room 301, Campus Center

Prioritizing the Execution of Time-Constrained Regression Test Suites

Kristen Walcott

Majors: Computer Science, Mathematics

Minor: French

Room 302, Campus Center

The Effects of Simultaneous Mutations at D349, R350, and D351 on the Bacteriophage HK97 Capsid Assembly and Maturation Process

Brian Herman

Major: Biology / Minor: German

Room 303, Campus Center

1:20–1:35 pm

Die Entwicklung Pennsylvanischen Deutsch (The Development of Pennsylvania German)

Wilma Mast

Major: German / Minors: History, French

Room 206, Campus Center

Periconceptual Supplementation of Folic Acid in an Animal Model of Autism

Adrian L. Oblak

Majors: Neuroscience, Psychology

Room 302, Campus Center

An Empirical Evaluation of Tuple Space Monitoring and its Effect on Space Performance

Tony Borres

Major: Computer Science

Minors: Economics, Communication Arts

Room 303, Campus Center

1:40–1:55 pm

Two Insides of a Community: Balancing Collective Bonding and Victimization in Gloria Naylor's *The Women of Brewster Place*

Lisa Maurer

Major: English / Minors: History, French

Room 206, Campus Center

Nuance: A Hierarchical Pipeline Operating System

Christopher Lauderdale

Major: Computer Science

Room 301, Campus Center

Testing Database-Centric Web Applications

Evan Kormos

Major: Computer Science / Minor: Economics

Room 302, Campus Center

2:00–2:15 pm

Finding A Perfect Fit: An Examination of the Roles of the Female Narrator in the Patriarchal Society of Margaret Atwood's *The Edible Woman* and *Surfacing*

Jennifer Taormina

Major: English / Minor: Psychology

Room 301, Campus Center

Finding Jaques, An Actor's Journey

Jeffrey Chips

Major: Theatre / Minor: History

Room 302, Campus Center

Antipredator Behavior of Adult Convict Cichlids *Archocentrus nigrofasciatus*, in Response to Conspecific Alarm Signals: Effects of Sex and Water Turbidity

Lori Lester

Major: Biology / Minor: Psychology

Room 303, Campus Center

2:20–2:35 pm

Faith Based Initiatives and the Separation of Church and State

James Barr

Majors: Philosophy, Political Science

Minor: Religious Studies

Room 206, Campus Center

Kinetics of DNA Duplexing and Denaturation Studied Using Surface Plasma Resonance

Celeste Lindahl

Major: Chemistry / Minors: Psychology, Biology

Room 301, Campus Center

QUICK SCHEDULE

2:20–2:35 pm continued

Psychological Autobiographies: A Window Into Mental Illness

Jeannette Reid

Major: Psychology / Minor: English

Room 303, Campus Center

2:40–2:55 pm

Defining the Other: Lahontan, Charlevoix, and the American Indian

Jenna Nigro

Majors: History, French

Room 302, Campus Center

Making the Grade: Women in Higher Education in the 1950s

Sarah Johnston

Major: History / Minor: Communication Arts

Room 303, Campus Center

3:00–4:00 pm, Campus Center Lobby Poster Presentations

The Immediate and Long Term Effects of Physical Activity on Emotional Well Being: Effectiveness of Varying Exercise Modes in Altering Mood States

Erika Almquist

Major: Neuroscience / Minor: Spanish

Steel City Represent

Phillip Denman

Major: Communication Arts / Minor: Political Science

Then...And Now: The Playshop Theatre, 75 Years

Alexa Ducsay

Majors: English, Technical/Professional Writing

Minor: History

A Study of Greed in a Criminal Population

Meghan Fox

Majors: Psychology, Philosophy

Through the Threads: The History and Prevalence of Restrictive Women's Footwear in China and America

Lindsey Katora

Majors: Psychology, Women's Studies

Various Effects of Housing and Stress on Discrimination Behavior in Rats

Lindsey Katora

Majors: Psychology, Women's Studies

Gene Expression of Carbonic Anhydrase Isoenzymes in Rat Nasal Tissue

Emily Kuchta

Major: Biochemistry / Minor: History

Pleasantview Alliance Church Web Design, Site Maintenance, and Usability Project

Ginnifer Lawrence

Majors: English, Technical/Professional Writing

Minor: Psychology

The Effect of In Utero Nicotine Exposure on Serotonin Receptor Binding and Ventilatory Response in Newborn Rats: A Possible Implication in Sudden Infant Death Syndrome

Alexander Mericli

Major: Biology / Minor: English

The Effects of Maternal Zinc Deficiency on the Ventilatory Responses to Inspired CO₂ in Neonatal Rats: Implications for SIDS

Elizabeth Muir

Major: Neuroscience / Minor: Spanish

Reduction of Oral Ethanol Self-Administration by Treatment with Monoamine Oxidase Inhibitors

Chris Schmoutz

Majors: Neuroscience, Psychology

The Role of Na⁺/H⁺ and Cl⁻/HCO₃⁻ Exchangers in CO₂ and Odorant Detection By Olfactory Neurons in Sprague-Dawley Rats

Erica Sparkenbaugh

Major: Biology / Minor: Psychology

Art Galleries

Senior Projects in Studio Art and Art & Technology will be on display, including work by these students:

Julie Chang

Katie Lauffenberger

Shannon Ferrett

Raelynn Miles

Liz Geller

Jennifer Reeves

Darrell Haemer

Martin Santek

Lori Hansen

Lawrence Schlosser

Jeremy Hoople

Matt Visyak

A B S T R A C T S

Erika Almquist

The Immediate and Long Term Effects of Physical Activity on Emotional Well Being: Effectiveness of Varying Exercise Modes in Altering Mood States

The purpose of the present study was to examine the immediate and long-term effects of different modes of exercise on mood alterations. Physiological and psychological effects were observed to examine the effectiveness of yoga versus aerobics on altering mood states. It was hypothesized that both aerobics and yoga would induce an elevation in positive emotional well being. There were significant physiological adaptations between groups but there were no significant changes in affect.

Major: Neuroscience / Minor: Spanish

Senior Project Advisor: Alec Dale

3:00–4:00 p.m., Campus Center Lobby

James Barr

Faith Based Initiatives and the Separation of Church and State

Using the president's proposed faith-based charity funding program as a focusing lens, this paper examines the nature of attitudes in this country about the separation of church and state. This includes the historical tradition of church/state separation in America, and the rise of the modern American Conservative Movement with its anti-disestablishment stance.

Majors: Philosophy, Political Science

Minor: Religious Studies

Senior Project Advisor: William Bywater

2:20–2:35 p.m. Room: 206, Campus Center

Tony Borres

An Empirical Evaluation of Tuple Space Monitoring and its Effect on Space Performance

This work introduces a technique to monitor the message-passing behavior of distributed systems that use tuple space communication, without greatly impacting space performance. The monitor created for this work allows the recording of workload traffic. The recorded data allows for the average size and number of entries in the space

to be determined. The tool runs independently of the clients and the space, allowing monitoring without adjusting the system or client code.

Major: Computer Science

Minors: Economics, Communication Arts

Senior Project Advisor: Andrew Thall

1:20–1:35 p.m. Room 303, Campus Center

Phoebe Chadwick-Rivinus

“Worthy of Paradise”: The Reputation of Lorenzo Ghiberti and His Gates of Paradise (1425-1452)

Between 1401 and 1452, Italian Renaissance sculptor Lorenzo Ghiberti created innovative sculptures made of marble and bronze. His final work is Gates of Paradise (1425-1452), in which he perfects Alberti's scheme of one-point perspective. These ten bronze panels of the Old Testament, “worthy of Paradise” according to Michelangelo, demonstrate a break in style for Ghiberti and lay an innovative foundation for the entirety of the Renaissance.

Major: Art History / Minor: History

Senior Project Advisor: Amelia Carr

1:00–1:15 p.m. Room 206, Campus Center

Jeffrey Chips

Finding Jaques, An Actor's Journey

In this project, I developed and applied an acting process for my performance as Jaques in the Allegheny Playshop production of *As You Like It* by William Shakespeare. I worked with acting texts by Michael Chekhov and Patsy Rodenberg, period research, and research written on the play. I applied my research within rehearsals, and kept a journal of my discoveries.

Major: Theatre / Minor: History

Senior Project Advisor: Dan Crozier

2:00–2:15 p.m. Room 302, Campus Center

Phillip Denman

Steel City Represent

This documentary examines the Pittsburgh underground hip hop scene by focusing on the struggles that local groups have faced in making a name for themselves and gaining popularity within the city of Pittsburgh and beyond. The film examines issues common to many inde-

pendent artists and suggests the lack of major popularity of hip hop within the city comes as the result of a non-existent network of like-minded individuals working toward common goals.

Major: Communication Arts / Minor: Political Science
Senior Project Advisor: Mike Keeley
3:00–4:00 p.m., Campus Center Lobby

Alexa Ducsay

Then...And Now: The Playshop Theatre, 75 Years

My Senior Project both explores the history of the Playshop Theatre over the past 75 years and chronicles the process of researching, designing, and creating the commemorative booklet for the anniversary celebration. This process included researching in the Playshop archives, scanning numerous pictures, and learning to use Adobe Photoshop and Pagemaker to construct the booklet itself. I also interviewed two alumnae and wrote a variety of sample articles about the process.

Majors: English, Technical/Professional Writing
Minor: History
Senior Project Advisor: Ann Bomberger
3:00–4:00 p.m., Campus Center Lobby

Meghan Fox

A Study of Greed in a Criminal Population

The ultimate aim of this research was to clarify some important aspects of greed and find a connection between the internalizations and manifestations of greed in a subgroup of society. The qualitative interviews researched which objects in life criminals are greedy about, along with what behaviors (actions, thoughts, and feelings) are associated with greed. The empirical results supported previous theoretical research and can help clarify more about an area of human behavior.

Majors: Psychology, Philosophy
Senior Project Advisors: Joshua Serale-White, Eric Palmer
3:00–4:00 p.m., Campus Center Lobby

Brian Herman

The Effects of Simultaneous Mutations at D349, R350, and D351 on the Bacteriophage HK97 Capsid Assembly and Maturation Process

The capsid assembly and maturation process of bacteriophage HK97, which infects *Escherichia coli*, is not fully understood. Amino acids D349, R350, and D351 of the capsid protein appear to be the most significant interactions between capsomeres. I attempted to gain a better understanding of HK97 capsid assembly by abolishing these interactions through simultaneous mutation to glycine. Purified mutant proteins were analyzed using gel electrophoresis. The triple glycine mutant protein assembles normally but then dissociates into capsomeres.

Major: Biology / Minor: German
Senior Project Advisor: Brandi Baros
1:00–1:15 p.m. Room 303, Campus Center

Sarah Johnston

Making the Grade: Women in Higher Education in the 1950s

My Senior Project examines women in higher education in 1950s America. The history of women's entry into the realm of higher education is looked at, with a particular focus on the tumultuous decade just following World War II. This was a controversial and changing time both for educational institutions and women. My project focuses more specifically on female students at Allegheny College in the fifties and the school's official and unofficial policies concerning women.

Major: History / Minor: Communication Arts
Senior Project Advisor: Paula Treckel
2:40–2:55 p.m. Room: 303, Campus Center

Lindsey Katora

Through the Threads: The History and Prevalence of Restrictive Women's Footwear in China and America

I addressed the beauty ideal of a small, petite foot in both Eastern and Western cultures. I examined the history of lotus shoes and foot binding in China and cosmetic foot surgery in Western culture. I explored ways in which women embedded in patriarchal societies found ways to counter-control the system. While practices of body

ABSTRACTS

mutilation ultimately evolve from a patriarchal system, I argued that the woman's experiences must not be lost in that system.

Majors: Psychology, Women's Studies
Senior Project Advisor: Jennifer Hellwarth
3:00–4:00 p.m., Campus Center Lobby

Lindsey Katora

Various Effects of Housing and Stress on Discrimination Behavior in Rats

Do animals, who have had no stimulation in life, respond to stressful events in the same way as animals who live in enriched environments? Does the occurrence of an extremely stressful event retard an animal's ability to learn in that environment? The current study was designed to address these important questions that have remained unanswered in the literature. The results were optimistic showing animals from both environments having the ability to learn regardless of stress.

Majors: Psychology, Women's Studies
Senior Project Advisor: Rodney Clark
3:00–4:00 p.m., Campus Center Lobby

Evan Kormos

Testing Database-Centric Web Applications

Relational databases play an important role in modern Web applications. The accuracy of the data is important because dynamic Web sites on the Internet rely on the data stored in the database. This research observes currently accepted testing techniques for traditional database-centric applications and methods for checking program correctness. My research implements new techniques to analyze and enumerate test requirements and provide adequacy levels for database-centric Web applications to increase confidence in program correctness.

Major: Computer Science / **Minor:** Economics
Senior Project Advisor: Gregory Kapfhammer
1:40–1:55 p.m. Room 302, Campus Center

Emily Kuchta

Gene Expression of Carbonic Anhydrase Isoenzymes in Rat Nasal Tissue

Carbonic Anhydrases (CA) are zinc metalloenzymes

that catalyze the reversible reaction of CO_2 . The hydrogen and bicarbonate ions produced by this reaction play roles in many important biological functions. These functions include chemoreception and ion balance/exchange. There are 11 different isoenzymes of CA found in differing amounts throughout the body. This study researched the expression of the 11 isoenzymes in rat kidney and nasal mucosa using RT-PCR.

Major: Biochemistry / **Minor:** History
Senior Project Advisor: E. Lee Coates
3:00–4:00 p.m., Campus Center Lobby

Christopher Lauderdale

Nuance: A Hierarchical Pipeline Operating System

Nuance is an operating system designed entirely around a "pipeline" paradigm. Both virtual memory and system commands are executed by exchanging messages along the pipeline, which allows applications to hierarchically nest system environments. The high-level architecture of Nuance is based around interaction between objects, and the various servers that provide access to them and transformation of their data.

Major: Computer Science
Senior Project Advisor: Robert Cupper
1:40–1:55 p.m. Room 301, Campus Center

Ginnifer Lawrence

Pleasantview Alliance Church Web Design, Site Maintenance, and Usability Project

A website was designed for Pleasantview Alliance Church examining how different audiences respond to print and online media. A manual and companion brochure was designed to teach the webmaster how to use Dreamweaver MX 2004 to edit the site, and usability testing was implemented to determine how accessible the site was to the public.

Majors: English, Technical/Professional Writing
Minor: Psychology
Senior Project Advisor: M. Soledad Caballero
3:00–4:00 p.m., Campus Center Lobby

Lori Lester

Antipredator Behavior of Adult Convict Cichlids (*Archocentrus nigrofasciatus*), in Response to Conspecific Alarm Signals: Effects of Sex and Water Turbidity

This study focused on the antipredator behavior of non-parental, adult convict cichlids in response to injury-released alarm cues. The first objective was to determine whether or not adult convict cichlids respond to alarm cues. The second goal was to find out if sex-differences exist in response to alarm cues made from male, female, or both male and female cichlids. Finally, the last experiment focused on determining whether the extent of antipredator behavior performed differs when in various turbidity environments.

Major: Biology / Minor: Psychology

Senior Project Advisor: Ronald Mumme

2:00–2:15 p.m. Room 303, Campus Center

Celeste Lindahl

Kinetics of DNA Duplexing and Denaturation Studied Using Surface Plasma Resonance

Duplex formation and denaturation kinetics of DNA complementary strands was investigated at different temperatures and oligomer concentrations. Surface plasmon resonance was used to detect duplex formation in real-time as a solution of complementary 3' CACGACAC 5' DNA was flowed over the gold/DNA surface. Activation energies were calculated as $E_{a_{on}} = -7.50$ kcal and $E_{a_{off}} = 27.69$ kcal and $DH = -56.22$ kcal/mole and $DS = -202.91$ cal/mol*K. These compared favorably to data from melting studies.

Major: Chemistry / Minors: Psychology, Biology

Senior Project Advisors: Alice Deckert, Martin Serra

2:20–2:35 p.m. Room: 301, Campus Center

Wilma Mast

Die Entwicklung Pennsylvanischen Deutsch (The Development of Pennsylvania German)

Pennsylvania German is an exceptional speech island, in that it has survived in the United States for almost 300 years without continued immigration. Therefore, it

is necessary to understand why grammatical, phonetic, and syntactic changes have taken place and how the language has been maintained thus far in order to promote further preservation. This study explores these changes and particularly the influence of the Amish religion on the maintenance of this minority language.

Major: German / Minor: History, French

Senior Project Advisor: Peter Ensberg

1:20–1:35 p.m. Room 206, Campus Center

Lisa Maurer

Two Insides of a Community: Balancing Collective Bonding and Victimization in Gloria Naylor's *The Women of Brewster Place*

I am working with Gloria Naylor's novel *The Women of Brewster Place*, analyzing the lives of seven African-American women who live in a run-down U.S. neighborhood in the 1970s. They bond with each other to keep the community alive; at the same time, they are forced to cope with a significant amount of violence. Naylor praises the women's strength and self-affirmation but also illustrates the complexities of being poor, black, and female.

Major: English / Minors: History, French

Senior Project Advisor: Laura Quinn

1:40–1:55 p.m. Room 206, Campus Center

Alexander Mericli

The Effect of In Utero Nicotine Exposure on Serotonin Receptor Binding and Ventilatory Response in New-Born Rats: A Possible Implication in Sudden Infant Death Syndrome

Maternal cigarette smoking is a strong risk factor for Sudden Infant Death Syndrome (SIDS). Babies whose mothers smoked often experience prolonged episodes of apnea and a decreased respiratory response to CO_2 . One explanation for this can be a decreased serotonin receptor density in the raphe nucleus region of the medulla, the area of the central chemoreceptor. Two timed-pregnancy rats were used. The control maternal rat was administered food and water ad libitum; experimental rats was given nicotine-infused food.

A B S T R A C T S

Major: Biology / Minor: English
Senior Project Advisor: E. Lee Coates
3:00–4:00 p.m., Campus Center Lobby

Elizabeth Muir

The Effects of Maternal Zinc Deficiency on the Ventilatory Responses to Inspired CO₂ in Neonatal Rats: Implications for SIDS

Zinc deficiency can limit fetal growth and in cases of severe deficiency, teratogenic anomalies are seen. A deficiency of this type may have implications for SIDS as it creates a vulnerable infant, which is part of the triple risk model. The proposed study examines the effects of maternal zinc deficiency at 0, 50, and 100% in rats on the ventilatory responses to inspired CO₂. It was hypothesized that a disruption between the interaction of carbonic anhydrase and zinc would occur limiting the detection of CO₂.

Major: Neuroscience / Minor: Spanish
Senior Project Advisor: E. Lee Coates
3:00–4:00 p.m., Campus Center Lobby

Jenna Nigro

Defining the Other: Lahontan, Charlevoix, and the American Indian

This project is an analysis of how two Frenchmen, one a disillusioned ex-army officer and the other a Jesuit priest, used descriptions of the American Indian to criticize European society in their travel accounts and memoirs in the first half of the 18th century. However, the “sauvage” that they held up for comparison was not a reality, but rather a projection of European values and ideals.

Majors: History, French
Senior Project Advisors: Barry Shapiro, Heather Howard
2:40–2:55 p.m. Room 302, Campus Center

Adrian L. Oblak

Periconceptual Supplementation of Folic Acid in an Animal Model of Autism

The current study examined the effects of periconceptual supplementation of folic acid and prenatal valproic acid (VPA) exposure on developing Sprague-Dawley rats. Research has indicated that there is a depletion of folates

in the body due to the exposure to VPA. An attempt to reduce the deleterious effects of VPA induced autism was made in this study. Behavioral assessments included measure of social recognition, object preference, and motor function using an elevated stick maze.

Major: Neuroscience, Psychology
Senior Project Advisor: Jeffrey Hollerman
1:20–1:35 p.m. Room 302, Campus Center

Jeannette Reid

Psychological Autobiographies: A Window into Mental Illness

The current study investigated the potential utility of psychological autobiographies in clinical work, suggesting that such accounts may offer qualitatively different information than more traditional accounts of mental illness. In particular, first-hand accounts may be better adept at discussing the subjective experience of having a disorder. An analysis of pertinent works provided support for this claim. Accordingly, professionals would be advised to use psychological autobiographies to enhance their understanding of mental illness.

Major: Psychology / Minor: English
Senior Project Advisor: Josh Searle-White
2:20–2:35 p.m. Room: 303, Campus Center

Thomas Richardson

Benchmarking and Comparison of File Systems for Linux

Performance is important in computer science. Chips—such as memory and processors—can rapidly double in speed. Memory is faster than hard disks, whose reliance on mechanical parts limits performance. The hard disk must be used efficiently to maximize benefits from chip speed increases. Choosing the proper file system is essential for optimal system performance. This experiment compares file systems for Linux, including ext2, ext3, ReiserFS3, ReiserFS4, JFS, and XFS, and utilizes benchmarks consisting of several test suites: Bonnie, Bonnie++, IOZone, and several “real world” tasks. Experiment results will aid the system administrator in selecting the best file system for a Linux system.

Major: Computer Science
Senior Project Advisor: Robert Cupper
1:00–1:15 p.m. Room 301, Campus Center

Chris Schmoutz

Reduction of Oral Ethanol Self-Administration by Treatment with Monoamine Oxidase Inhibitors

Previous research has established a role for monoamine systems in the self-administration of ethanol. Increases in both serotonin and dopamine availability may contribute to decreased ethanol intake. Monoamine oxidase inhibitors (MAOIs) which block their metabolism, may provide a means of decreasing operant ethanol self-administration. The researchers examined the effects of MAOIs (l-deprenyl and clorgyline) after rats had been trained to self-administer ethanol (10% v/v). Rates of ethanol self-administration decreased in a general dose-related manner.

Majors: Neuroscience, Psychology

Senior Project Advisor: Rodney Clark,

3:00–4:00 p.m., Campus Center Lobby

Erica Sparkenbaugh

The Role of Na^+/H^+ and $\text{Cl}^-/\text{HCO}_3^-$ Exchangers in CO_2 and Odorant Detection By Olfactory Neurons in Sprague-Dawley Rats

There are olfactory receptor cells that respond to CO_2 . Within these cells, CO_2 is hydrated to H^+ and HCO_3^- ions. Na^+/H^+ (NHE) and $\text{Cl}^-/\text{HCO}_3^-$ exchangers (AE) on the membranes regulate increasing concentrations of these ions upon CO_2 stimulation. Hypothesis: Inhibition of these exchangers would decrease the response to CO_2 measured by EOG. Inhibition of NHEs decreased responses to all levels of CO_2 (5, 8, and 10%), and inhibition of AEs decreased responses to 10% CO_2 .

Major: Biology / **Minor:** Psychology

Senior Project Advisor: E. Lee Coates

3:00–4:00 p.m., Campus Center Lobby

Jennifer Taormina

Finding A Perfect Fit: An Examination of the Roles of the Female Narrator in the Patriarchal Society of Margaret Atwood's *The Edible Woman* and *Surfacing*

In Margaret Atwood's *The Edible Woman* and *Surfacing*, there is a use of a female narrator who tells a story of struggle between herself and the men in her life. Through the experiences of Marian and Narrator, they attempt to move away from the patriarchy and onto a new identity. At the conclusion, both Marian and the Narrator are working towards independence and becoming people who look past society's expectation of how women should live.

Major: English / **Minor:** Psychology

Senior Project Advisor: Kirk Nessel

2:00–2:15 p.m. Room 301, Campus Center

Kristen Walcott

Prioritizing the Execution of Time-Constrained Regression Test Suites

Test case prioritization techniques organize tests in a regression test suite to increase the average number of faults detected during testing. Because execution of all tests can be extremely time-consuming, regression testing must operate in a time-constrained fashion. This research tests a new test prioritization technique that uses a genetic algorithm to order test cases so that the rate of fault detection is optimized when the tests are run within a specified time limit.

Majors: Computer Science, Mathematics

Minor: French

Senior Project Advisor: Gregory Kapfhammer

1:00–1:15 p.m. Room 302, Campus Center

Where 2,000 students with unusual combinations of interests, skills and talents excel.



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