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# **SUNY CORTLAND'S**

## **Undergraduate Research Council**

**Undergraduate Research Audit**  
**August 2005**

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### SUNY Cortland's Newly Formed Undergraduate Research Council

President Erik Bitterbaum and Provost Davis-Russell are pleased to announce the formation of SUNY Cortland's Undergraduate Research Council (*UR Council*). The purpose of the UR Council is to highlight and stimulate SUNY Cortland's undergraduate student research activities. The UR Council will encourage and promote high quality undergraduate research, scholarship and creative activities and further students' original intellectual and creative contributions to their respective discipline<sup>1</sup>. Currently, over 80% of Cortland's students graduate with some type of experiential learning including going abroad, volunteer service, student teaching, research, clinical work or laboratory coursework. The UR Council seeks to expand and enhance research opportunities for all students while at SUNY Cortland.

The campus charge to the UR Council is to promote strong student-faculty collaborations where students are engaged in research and scholarship throughout the College. The UR Council will serve as a means for the collection and dissemination of information on best practices for undergraduate research and the benefits to students and faculty for being engaged in a broad range of experiential activities. Moreover, the UR Council will promote Cortland as an institution fully committed to student research, scholarship and creative pursuits. To this end, the UR Council will assure that faculty and students have easy access to information and resources on best practices, mentoring, student publishing and other forms for the dissemination of students' scholarly works.

<sup>1</sup> Undergraduate research is defined by the national Council for Undergraduate Research as "an inquiry or investigation conducted by an undergraduate that makes an original intellectual or creative contribution to the discipline."

### History

**Fall 2004** - President Bitterbaum convenes a small group to discuss the formation of the UR Council. Provost Davis-Russell accepts the charge of developing and implementing the UR Council and its activities.

**Fall 2004** - Provost Davis-Russell calls for nominations from each dean for two representatives per school to serve as founding UR Council members. Each dean makes his recommendations. The UR Council membership also includes two administrative representatives (the Provost and Director of Sponsored Programs) and the Chair of the College Research Committee who serves to assure effective communications between faculty research interests and those of the students.

**Spring 2005** – SUNY Cortland formally registers and joins the National Council for Undergraduate Research.

**Spring 2005** - UR Council membership of nine identified:

- Arts & Sciences: Terrance Fitzgerald, Michael Togli (chair)
- Education: Cynthia Benton, Stephanie Spina
- Professional Studies: Phillip Buckenmeyer, Joy Hendrick
- College Research Committee Chair: Christopher McRoberts
- Administration: Elizabeth Davis-Russell, Amy Henderson-Harr

**Spring 2005** – UR Council meets to discuss the UR Council charge and begin exploration of potential activities for the next academic year. Ideas under consideration include, but are not limited to: conducting an internal audit of student

research activities; supporting an annual publication to highlight student research; development of a program for student travel to present findings at conferences should funding be received through gifts of alumni; establishment of an identity/office of undergraduate research; and the creation of a webpage with links and co-authored publications of faculty and students.

**Spring 2005** – Internal audit of student work completed by faculty respondents.

**Fall 2005** – UR Council will solicit campus input for activities needed to support high quality research experiences for SUNY Cortland students.

The proceeding pages represent findings from the internal audit conducted in the spring of 2005. Provost Davis-Russell invited faculty to share the breadth and depth of students' research efforts within the campus community during the past two years. ■

## Research Projects

**Students' Name:** Dan Abdo, Cody Cooper, Tony Romano

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Relationship Between Socioeconomic Status and College Students' Recreation

**Abstract:** The purpose of this study was to investigate the relationship between the amount of time and money spent on recreation and socioeconomic status. Approximately 100 SUNY Cortland students completed a two-page written questionnaire.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Students' Name:** Jess Anderson, Lisa Belcolore, Suzi Hoetzel

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Yoga Instruction on Campus

**Abstract:** This project was designed to assess opportunities for offering yoga instruction on campus. Current non-credit instruction was evaluated as well as interest in creating a credit-bearing course. Approximately 120 one-page written surveys were distributed to a sample of SUNY Cortland students.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session; Abstract and poster for Scholar's Day.



**Student Name:** Sarah Baron

**Major:** Kinesiology - Exercise Science

**Research Dates:** Spring 2005

**Faculty Name:** Joy L. Hendrick

**Faculty Department:** Exercise Science and Sport Studies

**Title:** The Effects of Noise and Coaction on Anxiety and Choice Reaction Time

**Abstract:** This study examined effects of noise on anxiety and reaction time. Participants completed trait and state STAI anxiety tests and performed 20 choice reaction time trials while listening to marching band music played at 90dB and at 60dB and a control. No RT differences were found across noise conditions, however state anxiety levels increased with the loud noise.

**Products:** Presented at Scholar's Day 2005.



**Students' Name:** Emily Beanan, Eric Decker, Tim Petrulonis

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** How SUNY Cortland Students Recreationally Spend Their Time

**Abstract:** This study analyzed how SUNY Cortland students are spending their money for recreational means. Spending habits were examined in relation to gender, residence, and class. Approximately 100 SUNY Cortland students completed a two-page door-to-door survey.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Students' Name:** Courtney Beauchamp, Patrice Gordon, Meghan Kellar, Jennifer Lintner, Sean Knipe, Jamie Valentino

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Margaret D. Anderson

**Faculty Department:** Psychology

**Title:** Personality and Cognitive Variables and Academic Performance

**Abstract:** Six papers examine the interaction between various personality and cognitive variables (such as Locus of Control, Tolerance for Ambiguity, Need for Cognition, Need for Closure and Learning Style) and academic performance. Differences in profiles related to gender, academic major and year in school are also analyzed.

**Products:** Panel presentation at the 19th Annual Conference on Undergraduate Teaching of Psychology: Ideas and Innovations, April 6-8, 2005, Monticello, NY; Presented at Scholar's Day 2005.



**Students' Name:** Scott Blackwell, Corey Maxson, Steve Schaap

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** All-Terrain Vehicle Land Use

**Abstract:** The purpose of this study was to determine the demand for more legal off-road riding areas for All-Terrain Vehicles in the state of New York. Approximately 100 surveys were administered to a purposeful sample of ATV users and owners.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Student Name:** Erin Bliss

**Major:** Biological Sciences

**Research Dates:** Spring 2005

**Faculty Name:** Barry Batzing

**Faculty Department:** Biological Sciences

**Title:** Flavobacteria in Tap Water

**Abstract:** Flavobacteria were isolated from several sources of tap water, including water faucets and drinking fountains. All sources harbored orange/yellow flavobacteria. Isolates were tested for sensitivity/resistance to six antibiotics. All flavobacteria isolates were sensitive to the six antibiotics.

**Products:** Term paper.



**Students' Name:** Tom Bourgal, Chelsea DeMarco, Christine Dietrich, Matt McHugh

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** SUNY Cortland Community Bike Program

**Abstract:** One hundred fifty surveys were distributed to a cross-section of SUNY Cortland students to gauge awareness, use, perceptions of benefits and constraining factors related to the new Community Bike Program. Data were analyzed by gender and major. Results will be used to assess the program's success and identify areas for improvement.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session; Abstract and poster for Scholar's Day.



**Student Name:** Jamie Cerqua

**Major:** Biological Sciences

**Research Dates:** Fall 2004, Spring 2005

**Faculty Name:** Peter K. Ducey

**Faculty Department:** Biological Sciences

**Title:** 1) Can Animals Recognize Their Clones? 2) Ecology of Terrestrial Planarians 3) Molecular Investigations of an Invasive Species (with Dr. Patricia Conklin)

**Abstract:** 1) An experimental investigation of the behavior of terrestrial planarians toward the chemical secretions of genetically identical individuals; 2) A laboratory investigation of the life history strategies employed by an invasive flatworm that is a predator of earthworms; 3) An experimental investigation into whether DNA sequences can be effectively employed to study the recent evolutionary and distributional history of an invasive species.

**Products:** Presenter and coauthor of a Scholar's Day presentation; Coauthor of a manuscript submitted for publication to a peer-reviewed scientific journal.



**Students' Name:** Lydia Chapman, Joe Fariello,  
Lindsay McKee, Karyn Perry

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Recreation and Inclusion

**Abstract:** Recreation programmers at three different area YMCAs were asked to complete a one-page questionnaire. Likert-type scales were used to gauge attitudes toward and practices implemented using inclusive programming.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Student Name:** Garrett Comanzo

**Major:** Kinesiology - Exercise Science

**Research Dates:** Spring 2005

**Faculty Name:** Jeff Bauer

**Faculty Department:** Exercise Science and Sport Studies

**Title:** ACL Injuries in College-aged Adults

**Abstract:** Garrett has assisted in analyzing knee injury survey data. He sorted through responses to identify those who had suffered anterior cruciate ligament (ACL) damage. Additionally, he has helped generate a follow-up questionnaire on chronic pain that will be sent to the original survey participants who had suffered ACL injury.



**Student Name:** Kristy Curtin

**Major:** Psychology

**Research Dates:** Fall 2004

**Faculty Name:** Kimberly Kraebel

**Faculty Department:** Psychology

**Title:** Infant Temperament and Its Relationship to Learning

**Abstract:** An individual's temperament is assumed to largely reflect biological predispositions. These predispositions may be a predictor for learning abilities in young infants. An operant learning procedure was used to illustrate an infant's ability to learn a specific task. Measurement of learning was correlated with maternal ratings of infant temperament. It was predicted that aspects of temperament would correlate with learning capabilities in infants. Early detection of temperament styles and their relationship to learning capabilities might help identify children at need for additional learning support.

**Products:** Presentation at Scholar's Day 2005.



**Students' Names:** Kristy A. Curtin, Carly R. Davis,  
Margaret K. Lasicki

**Major:** Psychology

**Research Dates:** Spring 2005

**Faculty Name:** Michael Toglia

**Faculty Department:** Psychology

**Title:** Remembering Names: A Comparison of Two Learning Techniques

**Abstract:** Two name learning techniques were compared: expanding rehearsal and name-face imagery. Participants studies name-face associations and were later given a cued recall test in which they were presented with a face and were to recall the name. Participants were presented with either an expanding rehearsal schedule (expanding condition); a distinctive facial feature coupled with a word phonologically similar to the last name and an interactive image linking the name and facial feature (name-face imagery condition); or a no memory (control) strategy. The expanding rehearsal schedule led to superior name earning, relative to the name-face imagery and control conditions after a 15 minute (Experiment 1) or 48 hour (Experiment 2) retention interval. By combining the techniques in Experiment 3, the retrieval practice explanation was tested, but not supported as , theoretically, we argue that an encoding variability interpretation is consistent with the overall pattern of results. Applied implications were also discussed.

**Products:** Presentation at Scholar's Day 2005.



**Students' Name:** Russ D'Amico, Brandy Howland,  
Melinda Talcott

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Spring Break Travel Among SUNY Cortland Students

**Abstract:** This study determined where and why SUNY Cortland students travel for Spring Break. A one-page written survey was distributed to approximately 100 students, from freshmen through graduate students.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Student Name:** Jordan Dawson

**Major:** Biological Sciences

**Research Dates:** Fall 2004



**Faculty Name:** Peter K. Ducey  
**Faculty Department:** Biological Sciences

**Title:** 1) Comparison of Regeneration in Planarians and Vertebrates; 2) Can Animals Recognize Their Clones?

**Abstract:** 1) An investigation, using the primary literature, into the relative roles of neoblasts (stem cells) and dedifferentiated cells during regeneration in members of the Turbellaria and Amphibia; 2) An experimental investigation of the behavior of terrestrial planarians toward the chemical secretions of genetically identical individuals.

**Products:** Coauthor of Scholar's Day presentation.



**Student Name:** James Dickson  
**Major:** Physics  
**Research Dates:** Spring 2005

**Faculty Name:** Ram P. Chaturvedi  
**Faculty Department:** Physics

**Title:** Laser Cooling

**Abstract:** Laser cooling is an important, new area of physics. In the last fifteen years, laser cooling has been employed to produce extremely low temperatures down to .000000001 Kelvin. This technique involves shooting photons, of the proper wavelength, at high-energy atoms, of some substance, in order to cause the atoms to absorb and then re-emit a photon in such a way as to lower the energy of the atom-thus lowering the temperature of the substance. This presentation describes the process of laser cooling and an important application of laser cooling-that of creating a unique form of matter known as a Bose-Einstein Condensate (BEC), including some of its uses.

**Products:** Presentation at Scholar's Day 2005.



**Students' Name:** Tom Dittmar, Matt Heron, Evin Munson  
**Major:** Recreation  
**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd  
**Faculty Department:** Recreation and Leisure Studies

**Title:** Survey of Upstate New York Anglers

**Abstract:** Approximately 100 New York State residents drawn from a convenience sample completed a two-page questionnaire for this study of fishing. The purpose was to examine reasons why people choose to fish or not, as well as why some anglers discontinue their fishing hobby.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Students' Name:** Caryn Garber, Eileen Moore, Jennifer Morrison, Andrew Tabor

**Major:** Psychology  
**Research Dates:** Fall 2004

**Faculty Name:** David F. Berger  
**Faculty Department:** Psychology

**Title:** The Effects of Perinatal Exposure to Polychlorinated Biphenyls on Rats' Ethanol Consumption

**Abstract:** This experiment studied the effects of perinatal exposure to PCBs on rats' ethanol intake. Half of the twenty males and females were exposed to 4.0 µg/g Aroclors 1254/1260. A limited access procedure was used to present increasing ethanol concentrations and measure consumption. PCB-exposed females drank more than the other groups.

**Products:** Poster presented at the Great Lakes Research Consortium Student/Faculty Conference, March 18, 2005; Journal publication is being prepared.



**Students' Name:** Caryn Garber, Eileen Moore, Jennifer Morrison

**Major:** Psychology  
**Research Dates:** Spring 2005

**Faculty Name:** David F. Berger  
**Faculty Department:** Psychology

**Title:** Delayed Effects of Perinatal Exposure to PCBs on Hyperactivity in Male and Female Rats

**Abstract:** We showed that perinatal exposure to polychlorinated biphenyls produces hyperactivity in normal rats tested between postnatal days (PND) 90 to 110. Now the behavioral testing will occur between PND 200 to 240. We expect that the induced hyperactivity in exposed males and females, compared to unexposed, same-sex controls, will persist.

**Products:** Research in progress; We plan to present the results at a future Scholar's Day, Society for Neuroscience meeting, or Great Lakes Research Consortium Student/Faculty Conference; Journal publication is also planned.



**Student Name:** Heather Golightly  
**Major:** Biological Sciences  
**Research Dates:** Spring 2005

**Faculty Name:** Peter K. Ducey  
**Faculty Department:** Biological Sciences

**Title:** Pinniped Physiological Ecology and Behavior

**Abstract:** An investigation, using the primary literature, of the captive and wild behavior of pinnipeds in relation to

their physiological ecology and the physical demands of their environments.

**Products:** Paper.



**Students' Name:** Annie Gustafson, Cheryl Lynn Pitt, Sydney Steele

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Programming for Youth At Risk

**Abstract:** Using a purposeful sample, ten recreation programmers were phone interviewed for a qualitative study to describe the effects of recreational programs on youth at risk.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Students' Name:** Heather Henderson, Genalin Holtz

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Participation in Leisure Activities at SUNY Cortland

**Abstract:** This study assessed student participation in leisure activities offered by SUNY Cortland. It included a comprehensive inventory of participation in athletic teams, clubs, facility use, and other leisure opportunities. A quota sample of 100 students (25 freshman, 25 sophomores, 25 juniors, and 25 seniors) answered a three-page written questionnaire.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Student Name:** Miranda Hendrickson

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings and Leslie Eaton

**Faculty Department:** Psychology

**Title:** A Meta-Analysis of the 2004 Campaign Polls: A Case for a New Way of Doing Science

**Abstract:** The traditional model of conducting single-sample null hypothesis tests to evaluate research hypoth-

esis has frequently come under fire in the psychological literature. Opponents of this approach have argued that even with replications small-sample studies all too often generate Type I and Type II errors. The current study uses polling data from the 2004 Presidential campaign to compare the traditional single-study approach with alternate meta-analyses. Leading up to election, Bush's polling percentages were consistently higher than Kerry's, although those polling numbers were typically within the margin of error. Our results suggest that meta-analyses would have revealed significant differences between the two candidate's polling percentages, and would have had better predictive validity than traditional analyses with single-sample or single-sample with replication. The implications of these results for science will be discussed.

**Products:** Scholar's Day 2005.



**Students' Name:** Melissa J. Jenks, Ivano R. Iaiia

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings

**Faculty Department:** Psychology

**Title:** A Comparison of Visual Orienting and Parental-Report Ratings of Attention Behavior

**Abstract:** This study examines the relationship between performance on the Visual Orienting Task (VOT) and parental ratings of the DSM-IV items using the Swanson, Nolan, and Pelham (SNAP) ADHD Behavioral Questionnaire, with a normative sample of children. Positive correlations between visual orienting and the nine IA items were found. The current findings suggest good convergent validity for these two assessments of attention, although questions regarding the ecological validity of computer-based attention tasks remain.

**Products:** Presentation at the Eastern Psychological Association Conference, March 2005; Scholar's Day 2005.



**Student Name:** Suzanne M. Karp

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings

**Faculty Department:** Psychology

**Title:** An Examination of MMPI-2 Clinical Scales Among Adults with ADHD-Combined or ADHD-Inattentive Types

**Abstract:** We examined DSM-IV ADHD symptoms in relation to MMPI-2 clinical scales with adults. Others have found correlations between several MMPI-2 scales and

ADHD symptoms, although ADHD individuals were not categorized into different subtypes. We found that only the ADHD-Combined Types (ADHD-C) participants scored higher than norms for the MMPI-2 scales. This suggests that ADHD-C Type individuals may be at greater risk for other psychopathologies than are their ADHD-Inattentive counterparts.

**Products:** Presentation at the Eastern Psychological Association Conference, March 2005; Presentation at Scholar's Day 2005.



**Students' Name:** Jess Krueger, Nicole Matyes

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Evaluation of the 54th Annual Cortland Recreation Conference

**Abstract:** An evaluation of the 54th Annual Recreation Conference program, including an assessment of future willingness to pay, was conducted by supplying each attendee with a written survey in their registration packet. Over 115 surveys were returned with feedback for next year's Special Events Planning class.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Student Name:** Tammy Kubinec

**Major:** Biological Sciences

**Research Dates:** Spring 2005

**Faculty Name:** Peter K. Ducey

**Faculty Department:** Biological Sciences

**Title:** Effectiveness of Techniques for Marking Amphibians in Ecology Studies

**Abstract:** An investigation, using the primary literature, of the research evaluating the relative effectiveness of techniques for individually identifying amphibians in long- and short-term ecological studies.

**Products:** Paper and annotated bibliography.



**Student Name:** Jodi Lake

**Major:** Health Science

**Research Dates:** Spring 2005

**Faculty Name:** Barry Batzing

**Faculty Department:** Biological Sciences

**Title:** Bacteria on Supermarket Produce

**Abstract:** Fresh produce from a local supermarket was examined for the presence of bacteria. Both fruits and vegetables had significant populations of bacteria. Most isolates were Gram-negative aerobic rods. No Gram-negative enteric pathogens were detected. Tests for antibiotic sensitivity revealed no unusual occurrence of antibiotic resistance.

**Products:** Term paper.



**Student Name:** Margaret Lasicki

**Major:** Psychology

**Research Dates:** Fall 2004

**Faculty Name:** Kimberly Kraebel

**Faculty Department:** Psychology

**Title:** Effects of Infant Temperament on Memory

**Abstract:** The current study investigated whether temperament can predict infants' memory capabilities. The Revised Infant Behavior Questionnaire was used to assess infants' temperament. Measurements of memory were obtained from infants in SUNY Cortland's Infant Learning and Memory Project. Parental responses on the survey were correlated with measures of memory. Temperament as it pertains to memory function may be a useful predictor for identifying children at need for educational support.

**Products:** Presentation at Scholar's Day.



**Students' Name:** Troy M. Lichten, Emily M. Raynor

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings

**Faculty Department:** Psychology

**Title:** Video Game Play and Preference of SUNY Cortland College Students

**Abstract:** The current study was conducted to understand better video game preferences among SUNY Cortland students. The data were collected from 150 participants, including 92 female students and 58 male students, with ages ranging from 17 to 23. The students filled out a self-report questionnaire consisting of fifteen questions, ranging from basic demographic questions to preference and frequency of video game play. The data were collected at various places on the college campus, with good representation of majors. The results indicated a significant difference between male and female students in hours spent playing video games,



while only male respondents rated action and sports games positively. Finally, a relationship was found between game playing and overall GPA. These results were obtained to help in the design of a larger study examining the relationship between video game playing and attention.

**Products:** Scholar's Day 2005.



**Student Name:** William F. Lipe

**Major:** Physics

**Research Dates:** Spring 2005

**Faculty Name:** Ram P. Chaturvedi

**Faculty Department:** Physics

**Title:** The Black Hole: Past and Present

**Abstract:** The black holes have such large force of gravity that not even light can escape from it. The concept of a black hole has been around over two centuries. However, Einstein's general theory of relativity in 1915 provided basic theory behind this idea. Since then it has been nurtured by Schwarzschild, Chandrasekhar, Wheeler, Oppenheimer, Hawkins and many others. Initially black holes were detected by their gravity but now several other detection methods such as a) gravitational lenses; b) X-ray- and Radio-astronomy; and c) ejected particles due to the evaporation of black holes; are being used. This presentation will provide a brief overview of the history of black hole research along with a discussion on how black holes exist and form through an astronomical as well as relativistic perspective.

**Products:** Presentation at Scholar's Day.



**Student Name:** Jennifer Mayack

**Major:** Kinesiology - Exercise Science

**Research Dates:** Spring 2005

**Faculty Name:** Joy L. Hendrick

**Faculty Department:** Exercise Science and Sport Studies

**Title:** The Effect of PNF Stretching on Sprint Performance in College Students

**Abstract:** This study investigated the effects of Proprioceptive Neuromuscular Facilitation (PNF) stretching on an acute bout of sprinting. College students ran a 40-meter sprint with and without prior stretching. For the stretched trial, PNF stretching of the hamstrings and hip flexors of both legs were administered. Times for the 40-meter sprints did not differ between the stretching and nonstretching conditions.

**Products:** Presentation at Scholar's Day 2005.



**Students' Name:** Shirleen McClarren, D'Ola Baptista

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings

**Faculty Department:** Psychology

**Title:** General and Specific Alerting Effects of Cues During Visual Orienting Tasks

**Abstract:** Four experiments were conducted with normative samples of young adults to examine the effects of manipulations in several cue attributes on spatial cueing and alerting effects during the exogenous Visual Orienting Task (VOT). The results of Experiment 1 revealed the presence of two distinct alerting effects (AE), including an initial general AE and a later occurring peripheral AU (PAE) that specifically benefits responses to invalidly cued targets. Evidence of a small but significant inhibition of return (IOR) effect on neutrally cued targets was also found. Experiment 2 revealed that manipulations of cue duration specifically affected the PAE, with little effect of spatial cuing. Experiments 3 and 4 provided some evidence that cue salience impacts both the general and peripheral AE, although individual differences in levels in inattentiveness seemed to moderate this effect. These data support a more complex temporal model visual orienting than has been discussed previously.

**Products:** Manuscript submitted for review, February 2005.



**Students' Name:** Jessica McCune, Marleah Race

**Major:** Anthropology and Communications

**Research Dates:** Fall 2003 through Fall 2005

**Faculty Name:** Ellie McDowell-Loudan

**Faculty Department:** Psychology

**Title:** Forensic Anthropology

**Abstract:** Working independently and as part of a team (with Marleah Race, Fall 2003/Spring 2004), Jessica carried out analysis of the human remains salvage-excavated from the yard of Homer Elementary School. Research included identification, cleaning, and analysis of the human remains to try to determine age, sex, cause of death, evidence of illness and pre-mortem injury, and possible ethnic identity. Interviews of historic society personnel, as well as specialists from the Biology Sciences contributed to the data.

**Products:** Work diaries, analytical forms, and papers were prepared and submitted to the faculty member. Each student presented a paper at the 2004 Scholar's Day program and will present updated papers on Scholar's Day 2005.



**Student Name:** Gina M. Salvatore  
**Major:** Kinesiology - Exercise Science  
**Research Dates:** Spring 2005

**Faculty Name:** Joy L. Hendrick  
**Faculty Department:** Exercise Science and Sport Studies

**Title:** Manual Dexterity Differences in Frequent and Infrequent Computer Users

**Abstract:** This study examined possible manual dexterity deterioration due to frequent computer use. Thirty female college students volunteered and were categorized as frequent or infrequent computer users. Manual dexterity was assessed using the Purdue Pegboard Test and Finger Tapping Test. Results found that frequent computer use in college age females did not affect manual dexterity.

**Products:** Presentation at Scholar's Day 2005.



**Student Name:** Jon Schwing  
**Major:** Kinesiology - Exercise Science  
**Research Dates:** Spring 2005

**Faculty Name:** Jeff Bauer  
**Faculty Department:** Exercise Science and Sport Studies

**Title:** Specificity of Dynamic Balance in Relation to Sports

**Abstract:** Jon conducted an experiment to compare dynamic balance between participants from three sports. Using a stabilometer balance device, forward-step protocol and sidestep balance on a low balance beam, he was able to quantify the differences in performance exhibited by the participants.

**Products:** Presentation at Scholar's Day 2005.



**Students' Name:** Peter J. Scialdone, Krysten L. Stoll  
**Major:** Psychology  
**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings  
**Faculty Department:** Psychology

**Title:** The Validity and Reliability of a New Visual Orienting Task for Children

**Abstract:** The current study investigates the validity and reliability of the traditional Visual Orienting Task (VOT) and a new age-appropriate VOT with a normative child sample. The new version produced higher reliabilities than did the traditional VOT. The children's performance on the new version generally replicated performance patterns by adults in prior studies. These findings suggest that the new

version may be an appropriate instrument with children.

**Products:** Presentation at the Eastern Psychological Association Conference, March 2005; Presentation at Scholar's Day 2005.



**Students' Name:** Peter Scialdone, Ivano Iaia, Melissa Jenks, Suzanne Karp, Troy Lichten, Victoria Puzo, Bryant Withers, Adrienne Fuller, Miranda Hendrickson  
**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings  
**Faculty Department:** Psychology

**Title:** Using Video Games to Improve Visual Attention Deficits

**Abstract:** Considerable progress has been made toward unraveling the processes involved in attention, leading to better understandings of the neurocognitive deficits underlying specific symptoms of Attention-Deficit/Hyperactivity Disorder (ADHD). Although this has led to effective short-term therapies, questions remain about their long-term efficacy. However, new therapies involving intensive daily activities in which the individual is required to utilize the impaired abilities have provided new hope for other neurological patients. We believe that it would be possible to apply these strategies to treat specific attention deficits among individuals with ADHD. The panel will discuss a proposed project in which samples of ADHD and non-ADHD university students participate in an intensive program of video game playing to help these individuals improve specific attention-related skills. A discussion of the project's theoretical background, the findings from the literature, the proposed methodology, and the study's implications will be included.

**Products:** Presentation at Scholar's Day 2005.



**Student Name:** Thomas J. Seghini  
**Major:** Adolescence Education: Physics  
**Research Dates:** Spring 2005

**Faculty Name:** Ram P. Chaturvedi  
**Faculty Department:** Physics

**Title:** Lasers in Medicine

**Abstract:** Light Amplification by Stimulated Emission Radiation or LASER harnesses the energy of photons in a concentrated beam of one uniform wave length. As our technology has improved vastly over the last 50 years so has the use of such an awesome energy source; from NASA, to the military, to one of the most delicate parts of the human

body-our eyes. Lasers have been used in the medical field for several decades and as the technology increases so does the array of uses for the lasers. From the popular eye surgeries to fix cataracts to improve vision, to removing benign and malignant tumors both on the surface and subdermal, to vaporizing kidney and gall stones, and even use on our pets to declaw a cat or remove hematomas from a dog's ear, the laser has proven to be a cost and time efficient (both operative and recovery time) tool in the medical world. The two most popular classes of laser are carbon dioxide and neodymium: YAG (Nd: YAG). Aside from life saving procedures that lasers have assisted in, they have entered the ever popular realm of cosmetic surgery, some done in vain and others to correct birth marks such as "port wine" syndrome. As technology continues to be on the forefront of the scientific community, the advancement of lasers will surely continue to grow exponentially.

**Products:** Paper presentation at Scholar's Day 2005.



**Student Name:** Cindy Sloan

**Major:** Sociology

**Research Dates:** Spring 2005

**Faculty Name:** Jamie Dangler

**Faculty Department:** Sociology/Anthropology

**Title:** Work-Family Conflicts: A Pilot Field Study

**Abstract:** This research project is a field study utilizing in-depth personal interviews and observations of people's home/family environments. Subjects were identified through a snowball sampling method, drawing from the researcher's personal contacts to people employed in manufacturing and service occupations in the Cortland area. A primary objective of the study was to explore the ways social class differences affect how work-family conflicts are experienced.

**Products:** Independent Study paper Spring 2005. This project is a pilot for research that the student plans to pursue in graduate school.



**Student Name:** Callie Sullivan

**Major:** Biological Sciences

**Research Dates:** Spring 2005

**Faculty Name:** Barry Batzing

**Faculty Department:** Biological Sciences

**Title:** Antibiotic-Resistant *Micrococcus* Bacteria Obtained from Scalp Samples

**Abstract:** *Micrococcus* bacteria were isolated from hair samples and studied for resistance to six antibiotics. Of sixteen bacterial isolates, five showed resistance to more than

one antibiotic. Of these, two were resistant to erythromycin and ciprofloxacin; two were resistant to erythromycin, penicillin and bacitracin; one was resistant to penicillin and bacitracin.

**Products:** Poster at Scholar's Day.



**Student Name:** Jamie Switzer

**Major:** Kinesiology - Exercise Science

**Research Dates:** Fall 2004

**Faculty Name:** Joy L. Hendrick

**Faculty Department:** Exercise Science and Sport Studies

**Title:** Hand-held or Hands-free Cell Phones: Do They Affect Reaction Time

**Abstract:** This study examined the effects of talking on a cell phone on RT in simulated driving conditions. Eighteen college student volunteers completed a block of twenty RT trials with no phone and conversing on hands free and handheld cell phones. Both cell phone conditions resulted in significantly slower reaction times and movement times than without using a cell phone.

**Products:** Accepted for presentation at the North American Society for Psychology of Sport and Physical Activity (NASPSPA) Conference, June 2005; Presented at Scholar's Day 2005.



**Students' Name:** Chuck Terry, Travis Walsh

**Major:** Recreation

**Research Dates:** Fall 2004

**Faculty Name:** Sharon L. Todd

**Faculty Department:** Recreation and Leisure Studies

**Title:** Beaudry Park User Survey

**Abstract:** Users of Beaudry Park in Cortland were asked to complete a one-page written questionnaire evaluating park functions, measuring leisure constraints, and assessing satisfaction with use of park facilities. Due to the timing of survey administration (off-season), responses were limited to a handful of visitors.

**Products:** Three-page abstract; Poster for REC 407 (Evaluation and Research) class poster session.



**Student Name:** Monica Warner

**Major:** Biological Sciences

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Peter K. Ducey

**Faculty Department:** Biological Sciences

**Title:** 1) Life-history and Ecology of Endangered NY Herpetofauna; 2) Can Animals Recognize Their Clones?; 3) Ecology of Terrestrial Planarians

**Abstract:** 1) An investigation, using the primary literature, of the life-history attributes and ecological requirements of species of amphibians and reptiles in danger of extinction in NY; 2) An experimental investigation of the behavior of terrestrial planarians toward the chemical secretions of genetically identical individuals; 3) A laboratory investigation of the life history strategies employed by an invasive flatworm that is a predator of earthworms.

**Products:** Papers and annotated bibliographies; Presenter and coauthor of a Scholar's Day presentation; Coauthor of a manuscript submitted for publication to a peer-reviewed scientific journal.



**Student Name:** Lori-Jeanne West

**Major:** Biological Sciences

**Research Dates:** Summer/Fall 2004

**Faculty Name:** Peter K. Ducey

**Faculty Department:** Biological Sciences

**Title:** 1) Herpetofauna Responses to Habitat Changes; 2) Ecology and Conservation of the Endangered Hellbender; 3) Ecology of Terrestrial Planarians

**Abstract:** 1) Field experimentation and monitoring of amphibians and reptiles in a highly-disturbed, urban ecosystem; 2) An investigation, using the primary literature, of the habitat requirements, sampling techniques, and conservation status of the hellbender, and aquatic salamander; 3) Laboratory investigations of the life history strategies employed by an invasive flatworm that is a predator of earthworms.

**Products:** Coauthor of manuscript accepted for publication in *Pedobiologia*, an international journal of soil biology; Coauthor of a manuscript submitted for publication to a peer-reviewed scientific journal; Coauthor of poster presentation at a national scientific meeting; Coauthor of Scholar's Day presentation; Author of in-house paper and annotated bibliography.



**Student Name:** Kathryn Wilkinson

**Major:** Speech Pathology and Audiology

**Research Dates:** Fall 2004

**Faculty Name:** Janet Ford

**Faculty Department:** Speech Pathology and Audiology

**Title:** Fall Leaves: Using Facilitating Context to Encourage Production of Final /l/

**Abstract:** As children learn adult speech patterns, the 'l' and 'r' sounds can be especially challenging. For example, one is likely to hear many kindergarten children calling their teacher "teacho." Despite the differences in the 'l' and 'r' sounds, they are actually produced in a similar manner. The present study utilized a multiple baseline design to demonstrate the effectiveness of a specific therapy technique in teaching the 'l' and 'r' sounds. The technique is described in detail and suggestions for application in the classroom are discussed. This natural approach can be used in conjunction with the curriculum in order to encourage children's development of these sounds.

**Products:** Poster session at Scholar's Day; Submission for poster presentation at the NYS ASHA Convention next year.



**Students' Name:** Bryant Withers, Adrienne Fuller

**Major:** Psychology

**Research Dates:** Fall 2004/Spring 2005

**Faculty Name:** Raymond Collings

**Faculty Department:** Psychology

**Title:** Does Size Matter? Comparison of a Small Pilot Study to a Larger One

**Abstract:** The results from a small-sample pilot study consisting of a fifteen question survey of sixteen students in an honors psychology statistics course was compared to a similar analysis of the data from a larger sample of 150 students. The questionnaire examined the video game playing habits and preferences of students, as part of a larger project. The purpose of the current study was to examine the effect for sample size, restriction of variability, and sampling bias on the outcomes from the two samples. Overall, the two samples resulted in very similar results, although the negative correlation between time spent playing video games was only present in the larger sample. Inter-discipline differences were also examined.

**Products:** Scholar's Day 2005.



**Student Name:** Paul Zalewski

**Major:** Kinesiology - Exercise Science

**Research Dates:** Spring 2005

**Faculty Name:** Peter M. McGinnis

**Faculty Department:** Exercise Science and Sport Studies

**Title:** Foot Position and Force Production During the Sprint Start



**Abstract:** The purpose of this study was to examine the effect of cocking the toe on force production during the sprint start from starting blocks. Eleven NCAA Division III track athletes each performed three traditional sprint starts and three sprint starts with the toe cocked position. Peak horizontal force was produced during the traditional start.

**Products:** Oral Presentation at 2005 Scholar's Day.

## Research Papers

**Student Name:** Jamie Bigelow

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Jamie is studying official papers as well as the papers of reformers relating to the 304 summary executions of soldiers in the British army for offences such as cowardice and desertion during the First World War. Jamie is also interested in the Labour Party post-war initiative to reform military justice to preclude such executions.



**Student Name:** Stephany Carruthers

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Stephany is reading Malleus Maleficarum, the witch-hunting manual from Europe's early modern period, looking to see how much anti-feminism was built into the system used by officials to ferret out and destroy people they considered a danger to society's survival.



**Student Name:** Pamela Doren

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Pamela is reading medical records, articles in the popular press, and memoirs to articulate reasons for a failed

re-assimilation into British society on the part of veterans returning from the Western Front after World War I.



**Student Name:** Ben Ellerson

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Ben seeks to compare patterns and motives of migration from Britain into Roanoke, Jamestown, and the Carolinas, focusing in part on the recruitment tactics used by companies seeking people willing to cross the Atlantic to start a new life.



**Student Name:** Richard Jayne

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Richard is reading the Roosevelt-Churchill letters in an attempt to discern whether or not the friendship of these two leaders led them to violate official U.S. neutrality in the period between the outbreak of World War II and Pearl Harbor.



**Student Name:** Scott Jeffers

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Scott is doing research into the papers of Winston Churchill, focusing on his career as Chancellor of the Exchequer, and especially on his decision in the early 1920s to restore the gold standard, which brought on a crippling general strike of workers.



**Student Name:** Ed Kennedy

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Ed is doing a historiographical paper, studying



the changing interpretations of the causes of the English Reformation. Ed's central problem is how to make sense of a religious movement that appears at first to have a very political cause, namely Henry VIII's desire to produce a male heir.



**Student Name:** Brian Livingston

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Brian is reading histories (the earliest one printed in 1918) of the disastrous Gallipolo campaign, the papers of Churchill, and newspaper articles from the World War I period seeking to determine the role of the popular press in turning out Churchill as Lord Admiral as well as in restoring leadership of a different sort to him later in the war.



**Student Name:** Ryan McIntyre

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Ryan has uncovered in the SUNY Cortland Library a sizeable collection of letters and journals written by British soldiers on campaign in America during the War of Independence. Ryan intends to compare their experiences and perspectives as it developed over time between the outbreak of war and its conclusion.



**Student Name:** Jessica Stewart

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Jessica is looking at part of the mountain of biographies of books on, and articles on Churchill written since the 1950s, looking at his responses to anti-Semitism before, during and after the war.



**Student Name:** Jason Volles

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Jason is reading Herodotus, Thucydides, and Aeschylus, taking on the time worn thesis that Persia invaded the Greek city-states because of a desire to expand its empire. Instead, Jason argues that it was Greek colonization efforts in Persian territory that provoked the giant to attack.



**Student Name:** Dan Wenzel

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Dan is studying the letters, diaries, and books the leading British feminist of the early twentieth century, Emmeline Pankhurst, as well as of her daughters, Sylvia and Christabel. Dan wishes to discover when and why Sylvia and her mother had what turned out to be a permanent falling out, and the effect that this family feud had on the movement.



**Student Name:** Derek Winn

**Major:** History

**Research Dates:** Spring 2005

**Faculty Name:** John Shedd

**Faculty Department:** History

**Summary:** Derek is comparing the treatment of deported Irish, Welsh, and Scottish indentured servants in the West Indies during the seventeenth and eighteenth centuries. Derek also plans to include a comparative study of enslaved Scottish labor in the Mediterranean during the same period.

