Integrating Undergraduate and Graduate Research in the Psychology Department at the College of William & Mary

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Psychology Department Mission Statement

The Psychology Department of W&M is committed to the development, dissemination, and application of new knowledge in the psychological sciences. Consistent with this commitment, the Department strives to attract and support a faculty that is nationally and internationally recognized for excellence in research. The Department also strives to provide excellent undergraduate and graduate programs of study in the psychological sciences. Our goal is for students at all levels to develop knowledge and critical thinking skills through didactic, laboratory, and practical training experiences, and hence, an understanding of the relationships among theory, research, and application.
Overview of Psychology Department Research: Integration of Graduate and Undergraduate Students

Our department provides a number of mechanisms for undergraduate and graduate students to become involved in research. The breadth of our faculty research interests provides a range of research areas for students. Many students are introduced to a research area through directed readings, independent research, or simply because they choose to volunteer. These students often learn to develop relatively independent research projects, with some guidance from a faculty mentor, which can serve as the basis for an honors thesis. Students in our M.A. program become involved in research early in their graduate career. The amount of work these students complete is impressive, as evidenced by the programs many of them choose to attend for their doctoral work. Within the last three years alone, our M.A. students are now in (or will be in) doctoral programs including: Michigan State University, Northwestern University, University of California, Santa Barbara, University of Michigan, University of Virginia, University of Washington. Our Psy.D. program (a consortium of four institutions) is recognized for being unique in the emphasis it places on students conducting empirical research.

Faculty in the department do not simply manage these programs (undergraduate, M.A., Psy.D.) independently but often provide opportunities for the students in these different programs to work together. Our rationale is that the undergraduate students will learn through interactions with more experienced students. Our graduate students will gain valuable experience in mentoring more junior colleagues. Finally, the interactions between faculty and students of such wide backgrounds create a vibrant intellectual atmosphere leading to new discoveries within the field of psychology.

The information contained within this report is designed to demonstrate our recent successes in conducting high-quality research with undergraduate and graduate students at the College of William & Mary. Over the past five years, at least one undergraduate co-author has been listed on 21 publications and 55 conference presentations. During that time, at least one graduate co-author has been listed on 25 publications and 45 conference presentations. Furthermore, 3 publications and 7 conference presentations during this time have included both graduate and undergraduate co-authors. For clarification, this report does not represent the total work accomplished by the faculty – indeed, independent faculty published work is not represented as that is not the goal of this report. However, faculty have been successful in obtaining funds from government sources (e.g., 3 RO1 grants from the National Institutes of Health) and from private sources (e.g., Jeffress Memorial Trust, Virginia Youth Tobacco Project) to support the research success of our undergraduate and graduate students.
Description of Vertical Integration of Undergraduate and Graduate Student Research

One MA student in Josh Burk’s lab recently demonstrated that testosterone administration impairs attention, and there is now an article concerning these findings in press. Two undergraduates assisted with the data collection and analysis for this research. Collectively, the undergraduates have served as co-authors on presentations of this work at the Society for Neuroscience conference, the Undergraduate Neuroscience Symposium (Fall 2005), and at the upcoming Undergraduate Science conference.

Joe Galano’s grantsmanship has had a direct and positive effect on undergraduate and graduate students. Approximately 36 students have worked as members of my Healthy Families Virginia research team over the past six years. Virtually all of the undergraduates have been paid and I was able to fund a Master's student's stipend. One doctoral dissertation, one master's thesis, one honors project, and several senior research projects have been produced as a result of students' collaboration with me. Four undergraduate students participated in the new summer research assistant housing program.

Pamela Hunt always assigns undergraduates to help her graduate students collect data. The graduate student trains and supervises the undergraduates, and many times the undergraduate is listed as a co-author with the graduate student on a publication. In addition to explaining research-relevant material, the graduate students are offer practical advice to the undergraduate students and, in general, teach them about graduate school.

Psychology Professors Harvey Langholtz and Chris Ball's 2002 book entitled "Resource-Allocation Behavior" brought together several years of research they had conducted that included six journal articles and professional presentations by two undergraduate and three graduate co-researchers and co-authors. Undergrad Computer Science major Barron Sopchack developed the software, while classmate Jacqueline Bell and Professor Ball analyzed subject responses. Among the graduate students, Eric Nolan compared behavior to mathematical models, Roxanne Gonzales examined resource-allocation to achieve fixed goals, while Antoinette Marty examined broader social issues of resource-allocation. Their book has been called "the gold standard" in its field.

In Constance Pilkington’s lab, undergraduate, MA, and PsyD students work together to study applied and theoretical aspects of close relationships. Current examples include a PsyD student who is conducting her dissertation on aggression in romantic relationships. Her experiment is based on the Honors thesis of a previous undergraduate student and is being conducted with the help of two undergraduate research assistants, one of whom is planning to do her own Honors thesis in Pilkington’s lab next year. An MA student is conducting his thesis research on the impact of safer sex messages in the media on trust in romantic relationships; his work is based on three previous Honors theses. And a first-year MA student is analyzing the thoughts participants report having when they are having an initial interaction with a member of the opposite sex; these data come from a
larger project, the data for which were collected by a (different) PsyD student and three independent study students.

Jennifer Stevens has both Masters and Honors students conducting their thesis research in her Cognitive Neuroscience Lab. Theirs are unique studies that relate to the primary interest of the lab - action representation – and offer a second dimension to the structure of the lab's research program. The result is an integrated and energetic lab which provides a rich and compelling learning environment for the independent study researchers.

Todd Thrash and his students are currently conducting research on implicit-explicit motive congruence, inspiration and the writing process, and humor production. Two M.A. students and one undergraduate honors student are currently working in Thrash’s lab. In addition, approximately 10 undergraduate psychology majors per semester assist with data collection and data coding. As part of his research on inspiration and writing, Thrash has hired several panels of English majors and graduate students from the American Studies department to evaluate technical aspects of participants’ writing quality and style. Two manuscripts with graduate students as co-authors are in preparation.

In Neill Watson’s clinical psychology lab, dissertation students typically work with a team of undergraduates who assist with data collection and entry or have a more central role. For example, two undergraduate honors students will be coauthors on a study of the relation of disordered eating to self-discrepancy, anxiety, and depression; for this research, the undergraduates conducted the first of two studies, which led to the dissertation as a second study.

In only her first year at the College, Janice Zeman already has graduate and undergraduate students working in her lab, examining children's and adolescents' emotional expressivity and psychosocial functioning. Two graduate students (one in the MA program and one in the PsyD program) contribute to the research, as do three undergraduate students. All students attend weekly meetings and are involved in data collection in the public school system, data coding and entry, and data analysis. The results from this study will be presented at international conferences in which the students will be co-authors.
Recent Publications with W&M Undergraduate Psychology Students

Undergraduate students denoted in bold
* Includes both undergraduate and graduate co-authors

Ball, C. T., & Stephen, D. G. (under review). Does subjective probability reasoning explain coincidence perception?

The work with Damian Stephen (now a Ph.D. student at the University of Connecticut) began in his sophomore year and culminated in three studies. One was conducted as an Independent research project and the other two comprised his honors thesis (which he received a Highest Honors grade). The first study was presented at the North Carolina Cognition Conference meeting and is now under review at the journal Applied Cognitive Psychology. We are currently working on some final edits to the draft of a second paper that we hope to submit soon. Damian played an equal role in the design and analysis of these experiments, although I probably contributed more to the paper and poster submissions. I really view him as a colleague rather than as a student.


Lori Newman’s work served as her honors thesis. We developed the hypotheses and experiment together. Lori conducted most of the data analysis and tissue processing independently and learned animal surgery as the experiment progressed. Her thesis served as a template for the publication. She is now a graduate student at the University of New Hampshire in behavioral neuroscience.


Several outstanding and dedicated undergraduate students working with me have expressed strong interests in and commitments to clinical research and practice. Eva Abel, Travis Burnett, Carla DeSalvo, Christina Derbyshire, and Brandi Simonson are recent examples of a long list of William and Mary psychology students with the maturity and perseverance to dedicate two or more years to volunteer work and clinical research at agencies such as Eastern State Hospital and community aftercare programs for the long-term mentally ill. Eva, Carla and Travis each collected data at Eastern State Hospital for over two years and co-authored journal research articles with me before continuing on in graduate work. Brandi Simonson was interested in the topic of ADHD and designed a study and collected data in pre-schools that led to a publication. Suzanne Overstreet and Ashley Glover have provided invaluable clinical research assistance in designing and collecting data for a study of the effects of cognitive rehabilitation programs for long-term patients at Eastern State Hospital. Other students such as Katie Powers, Misha Roane and Lisa Trivits have conducted longitudinal research on the effects of local Head Start programs on the cognitive development of pre-school children. These clinical research opportunities provide invaluable experience and background for our students as well as important opportunities for public service.

This publication was the result of Alison Wagner’s Psychology honors project. This was a very large-scale experiment that was designed to (a) determine whether alcohol-exposed animals (a model of fetal-alcohol spectrum disorders) would exhibit selective impairments in hippocampal-dependent trace conditioning and (b) whether supplementation with extra dietary choline would ameliorate these learning deficits. Alison was partially responsible for developing the hypotheses and designing the experiment. She supervised three other undergraduate students who helped her with the treatment of the animals, collected all of the data herself, and assisted with data analysis. Finally, she was primarily responsible for the written manuscript. In all respects, this was truly Alison’s work and she is deserving of this first-author paper in one of the top journals in the field.


This was an undergraduate honors thesis. The student collected, managed, and analyzed the data, as well as writing sections of the manuscript for publication.

Recent Conference Presentations with W&M Undergraduate Psychology Students

Undergraduate students denoted in bold
* Includes both undergraduate and graduate co-authors


Mr. Fields played a leading role in the development of his research in our laboratory which led to his conference and manuscript coauthorships. As a recipient of the Howard Hughes Medical Institute Summer Fellowship during Summer 2006, Mr. Fields piloted and developed the research which has further evolved into his senior Honors Thesis.


List of Undergraduate Students Who Contributed to Faculty Research (2005-06 AY)

Note: This list includes volunteers, independent study students, and honor’s students

Adkins, Elizabeth Giedris, Nick Nuccio, Audrey
Adkins, Taryn Glover, Ashley Nweke, Nwamaka
Aiken, Juliet Gould, Declan
Alford, Wendy Goldschmidt, Laura O'Reilly, Courtney
Aukward, Erin Grossman, Lauren Overstreet, Suzanne
Ayub, Sana
Baca, Sarah Handler, Jeff Palmer, Kimberly
Baker, Eric Harrington, Matthew Parker, Erica
Baltz, Julia Hartman, Evan Patel, Ankit
Banks, Cecelia Haworth, Laura Pendleton, Laura
Banks, George Hoffman, Elizabeth Powers, Katie
Bates, Scott Horne, Kathryn Rafajko, Andrew
Bludworth, Emily Huie, Christina Roberson Lindsay
Bothwell, Jamie Hummel, Jasmin Rowe, Amanda
Brady, Meghan Hutchison, Mary Anne
Brever, Amanda
Brunick, Kate Jack, Allison Saylor, Drew
Burgess, Mary Jackson, Alisha Scanelli, Maria
Campbell, Joannalee Jefferson, Andy Sharp, Marcia
Cameron, Allison Jones, Richard Shea, Meghan
Carron, Christopher Jue, Heather Smigel, Ezekiel
Chang, Katie Julstrom, Laura Spealman, Alyson
Chokshi, Vijah Kepley, Melissa Specter, Bethany
Clark, Michelle Kettyle, Shawna Spencer, Elizabeth
Coleman, Kara Knewstep, Shelley
Collins, Samantha Kohn, Joseph Sun, Chris
Crew, Page Kondrad, Robyn
Davis, Eboni Lau, Hui-Shing (Andy)
Davis, Kensey Lee, Crystal Thomas, Nicole
de Nersner, Peter Lefeve, Anne Thomas, Tanya
Dieckmann, Robert Long, Kristin Vassar, Karen
Dow, Lindsay Lucarini, Lauren Wagner, Alison
Erbach, John Lucas, Darren Walker, Lindsay
Erwin, Alicia Lutz, Amy Werner, Kimberly
Farmer, Heather Manipula, Christopher Willing, Laura
Fields, Nathan Mason, Daniel Yazdgerdi, Sasha
Franklin, Robert McClellan, Sarah Young, Ashley
Fung, Lucy Medina, Dorothy Young, Lindsay
Galvano, Matthew Nelson, Lauren Zielinski, Mike
Garcia, Brittany Novak, Jessica

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Recent Publications with W&M M.A. and Psy.D. Students

MA students denoted in bold
PsyD students denoted by underline


This was Amy Brunell’s master’s thesis, which Greg Webster (another M.A. student) helped us re-analyze. An undergraduate student, Philip Kray, helped Amy with data collection and went on to his honors thesis with Dr. Neill Watson.


Elizabeth Stief (VCPCP class of ‘04) served as a research assistant and co-authored a journal article with Dr. Galano. Elizabeth’s collaboration involved a year and a-half of meeting with community leaders and public officials, documenting an innovative prevention initiative and its impact, and summarizing the lessons learned for other communities. Elizabeth contributed significantly and learned about community development and the challenges of translating research into practice.


In our 2002 book, my two students, Antoinette Marty and Eric Nolan, played significant roles. Eric researched the topic of resource-allocation behavior when the slope if the objective function varies. Antoinette researched resource-allocation behavior in terms of equality, equity, and need, and she also worked extensively on the editing of the entire book.


Recent Conference Presentations with W&M M.A. and Psy.D. Students

**M.A. students denoted in bold**
**Psy.D. students denoted by underline**


presented at the Annual Meeting of the Southern Society for Philosophy and Psychology.


Funding Sources Used to Support Undergraduate and Graduate Research

By alphabetical order of PI.

Howard Hughes Medical Institute Undergraduate Science Education and Research Program, renewal 2002-2006. (P.S. Hunt one of 12 PIs).
Howard Hughes Medical Institute Undergraduate Science Education and Research Program 1998-2002. (P.S. Hunt one of 12 PIs).
NICHD/NIH, R01, 7R01HD040827-05, Reaching as a Yardstick for Infant Gestalt Perception, $849,375 total costs P.M. Vishton (PI).

Recent undergraduate summer grants:

Advisor in parentheses:

MacKenzi Hillard - HHMI Freshman Research Scholar – Fall/Spring 2000 (P.S. Hunt)
Stephanie Gabathuler - HHMI Freshman Research Scholar – Fall/Spring 2001 (P.S. Hunt)
Tara Belfast - Cummings Scholarship – summer 2003 (P.S. Hunt)
Robyn Kondrad – HHMI Summer Scholarship – summer 2003, 2004 (J.A. Burk)
Joe McQuail – HHMI Summer Scholarship – summer 2003 (J.A. Burk)
Alison Wagner - HHMI Summer Scholarship – summer 2003 (P.S. Hunt)
Wendy Alford – HHMI Summer Scholarship – summer 2004 (R.C. Barnet)
Lindsay Dow - HHMI Summer Scholarship – summer 2004 (J.A. Burk)
Meghan Shea - HHMI Summer Scholarship – summer 2004 (P.S. Hunt)
Lindsay Walker - Batten Pre-Honors Summer Scholarship – summer 2004 (P.S. Hunt)
Page Crew - Chappel Summer Scholarship – summer 2005 (P.S. Hunt)
Nathan Fields – HHMI Summer Scholarship – summer 2005 (R.C. Barnet)
Ezekial Smigel – HHMI Summer Scholarship – summer 2005 (R.C. Barnet)
Bethany Spector - HHMI Summer Scholarship – summer 2005 (P.S. Hunt)
Kimberly Werner – Undergraduate Student Summer Research Scholarship awarded by the Charles Center – summer 2005 (R.C. Barnet)