

Psychology 4031 – Applied Experimental Psychology

Spring Semester 2012

Weber SST III 2

CLASS: Wednesday & Friday: 1:05-1:55 PM

EXTENDED LAB: Monday: 1:05 PM-4:55 PM

****Attendance Required****

INSTRUCTOR: Dr. Wendy A. Rogers **EMAIL:** wendy@gatech.edu
OFFICE: Room 228
J. S. Coon Psychology Bldg. **PHONE:** 404-894-6775
OFFICE HOURS: By appointment (email to coordinate)
LAB INSTRUCTORS: Jenay Beer/Sara McBride **EMAILS:** jbeer@gatech.edu/smcbride@gatech.edu
TEACHING ASST: Akanksha Prakash **EMAIL:** aprakash30@gatech.edu
READINGS: Available online <https://t-square.gatech.edu/portal>

COURSE OVERVIEW: This is the capstone course for psychology majors. The course catalog describes the course thusly: “*Consideration of the applications of methods and data of experimental psychology. Understanding of human capabilities and limitations as applied to design of technology and environments.*” The goals of this course are to provide you with an understanding of: experimental and non-experimental research tools; the practical relevance of experimental psychology in a range of application domains; and how to apply knowledge and use research tools in a specific domain.

EXAMS and GRADING:

90-100 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, below 60 is failing.

Your course grade will be determined by:

- 1) Attendance (10%). Attendance is required for all **class** and **lab** meetings unless noted in the syllabus. You will receive credit for attendance only if you are present for the entire class/lab period.
- 2) Class Assignments (35%). Details of class assignments will be provided in class. (NOTE: Each assignment will receive a numerical grade. Assignments are due at the beginning of class – turned in as a hard copy. Late assignments will receive a grade of 0.)
- 3) Laboratory Reports (10%). Details of lab assignments will be provided during each lab meeting. (NOTE: Each report will receive a numerical grade. All Lab Reports must be submitted **electronically** by 1 PM on the date noted on the syllabus. Late reports will receive a grade of 0.)
- 4) Project Presentation (20%). One presentation will be made by each project team on Monday, April 23. Each presentation will be graded independently by Dr. Rogers, Jenay, & Sara. Your grade will be the mean of those evaluations.
- 5) Project Report (20%). One project report will be submitted by each project team. Each report will be graded independently by Dr. Rogers, Jenay, and Sara. Your grade will be the mean of those evaluations. (NOTE: The report is due by 5:00 PM on Friday, April 27. If submitted after that, you will lose 10 points, plus 10 points per day for each additional calendar day late.)
- 6) Peer Evaluation (5%). At multiple points in the semester, you will provide confidential evaluations of the effort put forth by each of your teammates. Peer evaluations must be submitted **electronically** by the date noted on the syllabus. Your own evaluation grade will be based on the mean of your peers’ assessments of your effort. (Failure to provide peer evaluations will result in a grade of 0.)

NOTE: 60% of your final grade is based on your individual efforts and 40% is based on group efforts.

FUNDAMENTALS OF APPLIED EXPERIMENTAL PSYCHOLOGY:

The class portion is designed to provide you with the fundamentals of applied experimental psychology. In addition to some general chapters, we will discuss research articles describing studies that advance general knowledge and have practical relevance to a particular domain. For each reading you will prepare either a one-page chapter essay or a one-page analysis of the article. (See T-Square for grading criteria.)

During the first month of class, we will read materials that will contribute to your lab project (aging fundamentals; conducting research with older adults).

The remainder of the semester will cover a sampling of the breadth of applied experimental psychology:

Attention in the operating room	Numeracy
Driving while talking	Perceptions of confessions
Expertise in dogs	Publicity and jurors
Graph comprehension	Science argument evaluation
Middle-school learning	Sleep effects on judgment
Multimedia benefits	Spending behavior
Recovery from interruption	Weather forecasts

Chapter Essay – a one-page essay regarding your views about the chapter – what did you learn, what did you find particularly interesting, were there any parts you did not understand. (*Not a summary.*)

Article Analysis – a one-page analysis of the critical points of the paper. (*Not a summary.*)

GROUP PROJECT:

The major goal of the lab component of the course is to integrate your knowledge of psychology and use that knowledge in an applied context. You will be applying principles taught in cognitive psychology, sensation & perception, and other areas of psychology to a specific project. The domain of focus is going to be *Successful Aging*. Your task will be to develop the specifications for a product or system that enables older adults (over age 65) to live independently, enhance their functional capabilities, maintain their health, improve their well-being – in short, to age successfully.

Our customers for this project will be:

- Brian Jones – Director of the Aware Home Research Initiative
- Panel of Elders – a group of older adults who will provide their insights throughout the course

Team assignments will be made near the beginning of the semester. Each team will select their topic, review the relevant literature, develop mock-ups of their ideas for testing and review by our Panel of Elders, present their ideas at the end of the semester, and prepare a final project report.

COURSE WEB SITE:

There is a course web site on T-Square (<https://t-square.gatech.edu/portal>). You will be able to access materials (e.g., syllabus, readings, resources, reminders) and submit assignments. You will also be able to track your grades throughout the semester to ensure you get credit for submitted assignments.

You will also be responsible for checking T-Square for updates regarding assignments. You are responsible for turning in lab reports on time (via T-Square); if T-Square is down, you should email the lab report to the lab instructors by the due date/time. Also, because T-Square is not infallible, you should download the class readings well in advance of when you will need them.

GEORGIA TECH HONOR CODE:

It is expected that all students have read and will follow the Georgia Tech Honor Code:
<http://www.honor.gatech.edu>

ANTICIPATED SCHEDULE (changes will be announced in class or lab)

CLASS: Wednesday & Friday: 1:05 – 1:55 PM EXTENDED LAB: Monday: 1:05 PM - 4:55 PM

+Attendance Required for Class and Lab Meetings+

Date	Day	Topic/Activity	Reading	Deliverable*
1/9	Mon	Introduction & Overview Lab 1 – <i>Project Orientation; Library Resources</i>	-----	-----
1/11	Wed	What you know so far...	Behavior Matters; Prolonging Vitality	-----
1/13	Fri	Applied Experimental Psychology	Rogers, Pak, Fisk (2007)	Chapter Essay
1/16	Mon	Martin Luther King, Jr. Day	No Meeting	No Meeting
1/18	Wed	Overview of Aging	Erber (2005)	Chapter Essay
1/20	Fri	Cognitive Aging	Schaie (2004)	Chapter Essay
1/23	Mon	Lab 2 – <i>User Analysis I</i> System Design; Group assignments	-----	Lab 1 Report
1/25	Wed	Needs Assessment for Aging	Beith (2000)	Chapter Essay
1/27	Fri	Focus Group with Older Adults	Rogers et al. (1998)	Article Analysis
1/30	Mon	Lab 3 – <i>User Analysis 2</i> Note: Meet at Aware Home @ 1:15 Tour Aware Home; Age simulation	-----	Lab 2 Report
2/1	Wed	Wisdom Across the Ages	Ardelt (2010)	Article Analysis
2/3	Fri	Successful Aging	Blanchard-Fields (2007); Kramer & Willis (2002)	Integrated Article Analysis
2/6	Mon	Lab 4 – <i>Survey Methods & Pitfalls</i> Interviews and focus groups; Idea development and panel questions	-----	Lab 3 Report Peer Evaluation
2/8	Wed	Graph Comprehension	Ratwani et al. (2008)	Article Analysis
2/10	Fri	Evaluating Science Arguments	Corner & Hahn (2009)	Article Analysis
2/13	Mon	Lab 5 – <i>Needs Assessment 1</i> Development of Panel Questions	-----	Lab 4 Report Peer Evaluation
2/15	Wed	Expertise in Dogs	Helton (2007)	Article Analysis
2/17	Fri	Recovery from Interruption	Monk et al. (2008)	Article Analysis
2/20	Mon	Lab 6 – <i>Needs Assessment 2</i> Panel of Elders	-----	Lab 5 Report Peer Evaluation
2/22	Wed	Effects of Sleep on Judgments	Baranski (2007)	Article Analysis
2/24	Fri	Spending Behavior	Raghubir & Srivastava (2008)	Article Analysis
2/27	Mon	Lab 7 – <i>Analysis Methods I</i> Task and function analysis, function allocation; Project update	-----	Lab 6 Report Peer Evaluation

2/29	Wed	Middle-school Learning	Lipko et al. (2009)	Article Analysis
3/2**	Fri	Multimedia Benefits	Mayer et al. (2008)	Article Analysis
3/5	Mon	Lab 8 – <i>Analysis Methods II</i> Error analysis, critical incident analysis, workload assessment	-----	Lab 7 Report Peer Evaluation
3/7	Wed	Driving and Talking	Drews et al. (2008)	Article Analysis
3/9	Fri	Discuss Project Ideas	-----	One-page per group
3/12	Mon	Lab 9 – <i>Specification of Design</i> Displays and Controls, Prototyping	-----	Questionnaire/Interview Materials (if applicable) Lab 8 Report Peer Evaluation
3/14	Wed	Attentional Strategies of Nurses (John Burnett)	Koh et al. (2011)	Article Analysis
3/16	Fri	<i>No Class Meeting</i>	Work on Projects	-----
3/19	Mon	MARCH BREAK	No Meeting	No Meeting
3/21	Wed	MARCH BREAK	No Meeting	No Meeting
3/23	Fri	MARCH BREAK	No Meeting	No Meeting
3/26	Mon	Lab 10 – <i>Usability Evaluation Techniques</i>	-----	Lab 9 Report Peer Evaluation
3/28	Wed	Weather Forecasts	Joslyn et al. (2011)	Article Analysis
3/30	Fri	Meaning to Numbers	Peters et al. (2009)	Article Analysis
4/2	Mon	Lab 11 – <i>Project Activities</i>	-----	Usability Material Drafts Lab 10 Report Peer Evaluation
4/4	Wed	Perceptions of Confessions	Ware et al. (2008)	Article Analysis
4/6	Fri	Publicity & Juries	Ruva & McEvoy (2008)	
4/9	Mon	Lab 12 – <i>Usability Testing</i>	-----	Lab 11 Report Peer Evaluation
4/11	Wed	Discuss Project Progress	-----	One-page per group
4/13	Fri	<i>No Class Meeting</i>	Work on Projects	No Meeting
4/16	Mon	Lab 13 – <i>Presentation Techniques and Tips</i>	-----	Lab 12 Report Peer Evaluation
4/18	Wed	<i>No Class Meeting</i>	Work on Projects	No Meeting
4/20	Fri	<i>No Class Meeting</i>	Work on Presentations	No Meeting
4/23	Mon	Project Presentations	-----	Project Presentations Peer Evaluation
4/25	Wed	<i>No Class Meeting</i>	Work on Project Reports	
4/27	Fri	<i>No Class Meeting</i>	Finish Project Reports	Project Reports Due Peer Evaluation

*Specific instructions for deliverables will be provided in class or lab. Deliverables are due at the start of the class or lab period (if submitting electronically will need to submit before coming to the period). **Drop Date is **March 2**