

Psychology 291  
**BASIC RESEARCH METHODS**  
 Fall 2004

Lectures/Labs: Tues. and Thurs. 8:30 – 10:20, AL 116

In PSYCH 291 we introduce you to the fundamental concepts and procedures that researchers use to address questions about psychological processes. This course will enable you to make more informed evaluations of research evidence, help you learn to design your own research, and prepare you for future courses in statistics and more advanced methods courses (e.g., PSYCH 392-398).

This course is for second year psychology students. All other students must have the permission of the course instructors and the psychology undergraduate advisor.

**Instructors**

Professor John Holmes	Professor Joanne Wood
PAS 3047	PAS 3042
Office hours: Each lecture will be followed by an open office hour (until 11:20) by the instructor who presented the lecture. If these times do not suit you, please speak to the instructors about arranging an appointment.	

**Teaching Assistants**

<b>Head TA:</b>	<b>TAs:</b>				
Baljinder Sahdra	Carol Broderick	Karen Choi	Roy Ferguson	Jennifer Kath	Lee Markowitz
PAS 3260	PAS 4299	PAS 4046	PAS 4048	PAS 4046	PAS 3285
Office hours:	Office hours:	Office hours:	Office hours:	Office hours:	Office hours:

**Course Web Page:** <http://watarts.uwaterloo.ca/~psych291/>

Postings on this web page include: the course syllabus, office hours and room numbers, and some (but not all) handouts that have been distributed in lectures. The best way to download material is to use Internet Explorer. You also can reach this web site by going to the department website <http://www.psychology.uwaterloo.ca/>, select "course web pages /newsgroups" and pick Psych 291 out of the list.

**Contacting Instructors**

All students are encouraged to seek information and help from instructors and TAs during scheduled office hours. We are here to help. We have scheduled a variety of office hours throughout the week, but if none of these suit your schedule, talk with an instructor or TA immediately before or after lecture to schedule an appointment. Any questions concerning lecture material, the readings, assignments, and administrative matters (e.g., exam timing conflicts) can be handled during office hours. Short, procedural questions can be sent to the course email address:

psych291@watarts.uwaterloo.ca, but please save long, detailed questions for office hours. TAs will check email during their office hours. PLEASE DO NOT SEND EMAIL MESSAGES TO THE INSTRUCTORS' OR TAs' PERSONAL EMAIL ADDRESSES. **Due to the class size, we cannot handle email messages or visits to our offices outside of our scheduled office hours.**

### **Lectures**

You are responsible for all material presented in lectures, including any announcements. You will get more out of the lectures if you read each of the readings before the class session for which it is assigned. At the same time, as in many senior courses, a significant amount of lecture material will *not* be covered in the texts. Thus, it is critical that you keep up with the lecture content.

### **Lab Sessions**

Normally, class sessions will begin at 9:00, but when we have a lab session, class will begin at 8:30. In the lab sessions, demonstrations will be presented and graded exams and assignments will be returned to students. You are responsible for all material presented in lab sessions, including any announcements. Lab sessions are scheduled as indicated on the enclosed schedule. However, we may modify this schedule—rescheduling sessions or adding sessions—if necessary. Any such changes will be announced in class.

Graded assignments and exams will be returned to students during lab sessions. In these sessions, the correct answers and the marking scheme will be presented. If you fail to pick up the materials in the lab session in which they are distributed, you may pick them up during TA office hours, but the TAs will not review the marking schemes with individual students. Attend the lab sessions if you want to understand the marking!

### **Course Requirements**

#### **Required Texts:**

Stanovich, K. (2003). *How to think straight about psychology*. Seventh Edition. Allyn & Bacon Publishers.

Pelham, B. & Blanton, H. (2002). *Conducting research in psychology: Measuring the weight of smoke*. Pacific Grove, CA: Brooks/Cole Publishing Company.

#### **Laboratory assignments:**

The laboratory assignments are designed to expose students to a procedure, a method, or an issue in the research methods of psychology. 36% of the final grade in this course is associated with the three assignments. On the assignment due date, you must sign in your assignment in class. **Late assignments**—turn in any late assignment **during office hours only**; do not turn in assignments electronically or put them in a mailbox; you must sign in your assignment with a TA or instructor. Marks will be deducted at a rate of 10% per day past the due date (that's 10% of the mark the student receives, not 10% of the possible total). A late assignment will not be accepted after corrected versions of the assignment have been handed back to the class.

**Exams:**

Exams will consist of multiple choice questions and short-answer essays. The midterm will cover all lectures and assigned readings from the beginning of the course through October 26; the final will cover all lectures and assigned readings after the midterm (i.e., the final will not be cumulative).

Questions about exam content (e.g., “will x be on the exam?”) should be asked (1) during class or (2) to the instructors (not the TAs) during office hours prior to the last class before the exam, so that answers can be given to the whole class. The reason for this restriction is that it is unfair for any student to have information about exam content that is not available to the rest of the class.

**Weighting of requirements for course grades**

	Date due	Weight in final grade
Quiz on basics of research design	Oct 7th	4%
Lab assignments:		
1 – evaluating newspaper description of research	Oct 19	9%
2 – correlational and experimental designs	Nov 11	12%
3 – designing a factorial experiment	Nov 30	15%
Midterm exam	Oct 28	30%
Final exam	exam period	30%

**Illness/Emergencies**

In case of illness that interferes with your presence for a quiz, exam, or assignment due date, consult the undergraduate calendar -- it explains how you are responsible for getting a physician’s note before you miss an exam. In case of a crisis in your personal life or family, you must provide some type of documentation. It is imperative that you inform us of any illness or crisis **before** the exam or assignment due date takes place. If you must cancel at the last minute, please leave a message at [psych291@watarts.uwaterloo.ca](mailto:psych291@watarts.uwaterloo.ca) or at 888-4567, x6512. **If you run into difficulties with course material, or keeping up with deadlines, talk with a TA or with the instructors as soon as possible; do not wait until it becomes a crisis.** For example, if you tell us during Week 8 that you’re having trouble, it is more credible and we can be more helpful than if you suddenly ask for an exam postponement in Week 12.

**Academic Offenses**

Plagiarism is the use of someone else's words or ideas as if they are one's own. It includes the use of quotations without proper referencing. All students must complete their assignments and papers on their own. Copying someone else's assignment (or portion thereof), or allowing another to copy your assignment, is prohibited. Cheating on examinations or assignments and plagiarism will result in a grade of zero for the course and will be reported to

the Chair of the Department of Psychology and to the Dean of the Faculty of Arts. Additional disciplinary action could include probation, suspension, or expulsion.

We suggest you read, carefully, Academic Policy #71 which can be found on the university's web site at the following address:

<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.html>. The Faculty of Arts now requires that the following message be included on all syllabi distributed in the Faculty of Arts.

*All students registered in the courses of the Faculty of Arts are expected to know what constitutes an academic offense, to avoid committing academic offenses, and to take responsibility for their academic actions. When the commission of an offense is established, disciplinary penalties will be imposed in accord with Policy #71 (Student Academic Discipline). For information on categories of offenses and types of penalties, students are directed to consult the summary of Policy #71 on page 1:10 of the 2003/2004 undergraduate calendar). If you need help in learning how to avoid offenses such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean.*

### **Message from Heather Smith**

Psychology majors should check the Psychology Undergraduate Web Site (<http://www.psychology.uwaterloo.ca/ugradprog/>) regularly for important notices, postings for research positions, course information for the coming year, etc.

All students should activate their UW computer accounts each term. The accounts give students access to applications such as word processing, statistical and graphics packages, and electronic email as well as access to the Internet. For those who are not planning to use their UW email addresses, please do one of the following things:

- change your email address on QUEST to the one that you want posted on the University Directory, or
- activate your UW account and forward your email from your UW account to your alternate email address.

**Schedule for Term**

Class begins at 8:30 on Lab days and at 9:00 on all other days.

<b>Date</b>	<b>Inst- ructor</b>	<b>Topic</b>	<b>Required reading</b>	<b>Labs, assignments, due dates</b>
Sept 14	HS, JS JH, JW	Orientation for psych majors Introduction to course	Pelham Ch. 1  Stanovich preface	
Sept 16 & Sept 21	JH	Philosophy and history of science	Stanovich Ch. 1, Ch. 2, Ch. 12	
Sept 23 & Sept 28	JW	Basics of research design	Pelham Ch. 2  Pelham Ch. 3 pp. 60 – 66  Stanovich Ch. 6	Sept 28 – <i>Materials for Basics Quiz will be distributed. Read these before the quiz on Oct. 7.</i>
<b>Sept 30</b> <u>8:30</u> start & Oct 5	JH	Measurement	Pelham Ch. 3 pp. 66 – 83  Stanovich Ch. 3	Sept 30 – LAB– arrive at 8:30– <i>Observation and interrater agreement.</i>
<b>Oct 7,</b> <u>8:30</u> start Oct 12 & Oct 14	JW	Threats to internal validity	Pelham Ch. 4 pp. 84 – 99 & 111 – 114  Pelham Ch. 6 pp. 176 -181  Stanovich Ch. 5 pp. 75 - 80	Oct 7 – Basics Quiz – arrive at 8:30– <i>Bring the materials. Assignment #1 will be distributed.</i>  Oct 14 – <i>return of Quiz results with explanation</i>
Oct 19, Oct 21, & <b>Oct 26</b> <u>8:30</u> start	JH	Nonexperimental designs	Pelham Ch. 5  Stanovich Ch. 4  Stanovich Ch. 5 pp. 69 - 75	Oct 19 – <i>Assignment #1 due at end of lecture</i>  Oct 26 – LAB– arrive at 8:30– <i>return of Assignment #1 with explanation of grading</i>
<b>Oct 28</b>	<b>MIDTERM EXAM</b> from 9:00 – 10:20 in AL 116. <i>Assignment #2 will be distributed</i>			

<b>Date</b>	<b>Inst- ructor</b>	<b>Topic</b>	<b>Required reading</b>	<b>Labs, assignments, due dates</b>
Nov 2, Nov 4, & <b>Nov 9</b> <u>8:30</u> start	JW	True experimental designs	Pelham Ch. 6 pp. 153 –169, pp. 182-183  Pelham Ch. 4 pp. 99 – 111  Stanovich Ch. 7	Nov 9 – LAB– arrive at 8:30– <i>return of midterm exams with explanation of grading</i>
Nov 11, Nov 16, & <b>Nov 18</b> <u>8:30</u> start	JH	Complex experimental designs	Pelham Ch. 8  Stanovich Ch. 9	Nov 11– <i>Assignment #2 due at end of lecture. Assignment #3 will be distributed.</i>  Nov 18 – LAB– arrive at 8:30— <i>interactions</i>
<b>Nov 23</b> <u>8:30</u> start	JW	Quasi-experimental designs, Part 1	Pelham Ch. 7  Stanovich Ch. 10	Nov 23 – LAB– arrive at 8:30– <i>return of Assignment #2 with explanation of grading</i>
Nov 25	SS	Research ethics	Pelham Ch. 9 pp. 274 - 278  Stanovich Ch. 11	
Nov 30 & Dec 2	JW	Quasi-experimental designs, Part 2  Drawing conclusions	Pelham Ch. 9 pp. 272 - 274  Stanovich Ch. 8	Nov 30 – <i>Assignment #3 due at end of lecture</i>
<b>Exam period</b>	<b>FINAL EXAM</b> – time to be scheduled by Registrar			

HS = Heather Smith, Psychology Undergraduate Services Officer

JW = Professor Joanne Wood

SS = Dr. Susan Sykes, Director, Office of Research Ethics

JS = Professor Jennifer Stolz, Undergraduate Chair

JH = Professor John Holmes