

Psychology 291
BASIC RESEARCH METHODS
 Fall 2007

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 Joanne V. Wood	Professor John G. Holmes
PAS 3042	PAS 3047
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

Head TA:	TAs:		
Justin Cavallo	Amanda Hogle	Stephanie Waechter	Omid Fotuhi
PAS 3240b	PAS 3041	PAS	PAS
Office hours:	Office hours:	Office hours:	Office hours:

Course UW-ACE Web Page

Postings on the course ACE page include: the course syllabus, office hours, handouts for lectures, on-line activities, announcements, and so forth. On your browser, type in: <http://uwace.uwaterloo.ca>. Provide your Quest/UWdir userid and password, and then click on PSYCH-291. **Problems? Read the instructions attached at the end of this outline.**

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 either through ACE or during lab sessions. If you receive feedback through ACE, please print it out and bring it to the lab session. In the lab session, the correct answers and the marking scheme will be presented. If materials are distributed in lab session and you fail to pick them up, 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!**

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.**

Course Requirements

Required Texts:

Pelham, B. W. & Blanton, H. (2007). *Conducting research in psychology: Measuring the weight of smoke*. Third Edition. Thomson Wadsworth.

Note: Students may try getting by with the used copies of the 2nd Edition. On the course web page, we have a handy table of corresponding page numbers from the 2nd edition, as well as the page numbers from the 3rd Edition that you should read.

Stanovich, K. (2007). *How to think straight about psychology*. Eighth Edition. Allyn & Bacon Publishers.

Assignments: Two assignments, together counting as 33% of the final grade, are designed to require students to *apply* concepts from the class. On the assignment due date, you must **SUBMIT AN ELECTRONIC COPY THROUGH THE COURSE ACE PAGE BY 1:00 PM.** **Your assignment must be in Word format.** The file name must have a “.doc” as a suffix. No other formats (e.g., WordPerfect) are acceptable. If your computer saves documents with a “.docx” suffix (i.e., Word07), please convert it to a Word '03 version before submission. In class, a TA will demonstrate how to submit the assignment. In addition, you may get help submitting the assignment from a TA during office hours. **You are personally responsible for getting confirmation from the ACE system that the paper has been received successfully.** If your assignment has not been submitted properly, for whatever reason (e.g., you submitted the wrong file by mistake, you used the wrong format), you will receive a mark of 0 on the assignment, or, if you notify us of the mistake before the assignment marking is covered in class, it will be marked as a late assignment.

Late assignments—Assignments submitted electronically after 1 pm but before 5 pm on the due date will be deducted 5%. Beyond that, marks will be deducted at a rate of 10% per day past the due date (that’s 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.

On-Line Activities: We have five on-line activities/tutorials that will be accessible through the ACE web page, worth 1% each: (1) Interpreting Graphs, (2) Correlations and third variables, (3) Regression to the Mean, (4) Interactions, and (5) Mediation. We will announce in class when these are available. All students must access these activities (ACE will record who accesses these activities), and complete the quizzes that are presented. The due dates for completing the On-Line Activities will be announced.

Research Participation: Students may earn extra credit of up to 4 points of their final course mark (although your final mark cannot be higher than 100) through participating in the REG Psychology Participant Pool, with 2 points available before the midterm and 2 points after. Please see further instructions regarding research participation at the end of this syllabus.

Quizzes: Two in-class multiple-choice or short-answer quizzes will assess students’ knowledge of (1) Basic Concepts and (2) Interactions. These quizzes together count for 12% of the final grade.

Exams: Midterm and final exams will consist of multiple choice questions and short essay questions. The midterm will cover all lectures and assigned readings from the beginning of the course through October 23; the final will cover all lectures and assigned readings after the midterm (i.e., the final will not be cumulative). Each exam is worth 25% of your final grade.

For each exam, you will receive a list of possible short essay questions about one week before the exam date. We will select the actual questions for the exam from this list.

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 some students 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
On-line activities:	Due dates for OAs to be announced	
Interpreting Graphs	approx. mid Sept.	1%
Correlations	approx. early Oct.	1%
Regression to Mean	approx. mid Oct.	1%
Interactions	approx. early Oct. - early Nov.	1%
Mediation	approx. late Nov	1%
Quiz on basics of research design	Oct. 4	8%
Quiz on types of interactions in factorial designs	Nov. 22	4%
Assignments:		
1 – correlational and basic experimental designs	Oct. 12	15%
2 – designing a factorial experiment	Dec. 3	18%
Midterm exam	Oct. 25	25%
Final exam	exam period	25%

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 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.

Academic Offenses, continued

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.htm>. The Faculty of Arts 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 offence, to avoid committing academic offences, and to take responsibility for their academic actions. When the commission of an offence is established, disciplinary penalties will be imposed in accord with Policy #71 (Student Academic Discipline). For information on categories of offences and types of penalties, students are directed to consult the summary of Policy #71 which is supplied in the Undergraduate Calendar (section 1; on the Web at http://www.adm.uwaterloo.ca/infocal/UW/policy_71.html). If you need help in learning how to avoid offences such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your TA or course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.html>.

How to Avoid Plagiarism and Other Written Offences: A Guide for Students and Instructors (<http://watarts.uwaterloo.ca/~sager/plagiarism.html>).

Email Accounts

The University provides an email address and account to all students for the receipt of official communications and their participation in an academic program at UW. An appropriate forwarding capability is provided so that students may, if they so choose, redirect mail to an alternate account. Students are responsible for checking e-mail regularly for important and time sensitive messages. You should use your UW account for all e-mail correspondence to UW personnel for reasons such as identification, reliability, and security. Note that higher priority may be given to e-mail received from UW accounts versus other accounts such as hotmail, yahoo, etc. See "Official Student Email Address" for further details:
<http://www.adm.uwaterloo.ca/infocist/emailuse.html>

Schedule for Term

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

Date	Inst- ructor	Topic	Required reading	Labs, assignments, due dates
Sept 11	HS, JS, JH, JW	Orientation for psych majors Introduction to course	Pelham Ch. 1 Stanovich preface	
Sept 13 & Sept 18	JH	Philosophy and history of science	Stanovich Ch. 1, Ch. 2, Ch. 12	
Sept 20 & Sept 25	JW	Basics of research design	Pelham Ch. 2, pp.26-44, Ch.10, pp. 276-278, Ch. 3, pp. 59-64 Stanovich Ch. 6	Sept 20 – <i>Materials for Basics Quiz will be distributed. Read these before the quiz on Oct. 4.</i>
Sept 27 & Oct 2	JH	Nonexperimental designs	Pelham Ch. 6 Stanovich Ch. 4 Stanovich Ch. 5 pp. 73-79	
Oct 4, <u>8:30</u> start Oct 9, Oct.11	JW	Threats to internal validity	Pelham Ch. 5, pp. 115 –130, Appendix 1, 336-338. Ch. 7 pp. 198 -202 Stanovich Ch. 5 pp. 80 – 83	Oct 4 – Basics Quiz – arrive at 8:30– <i>Bring the materials. Assignment #1 will be posted on ACE.</i> Oct 11 – <i>return of Quiz 1 results with explanation</i>
Oct 16, Oct 18, Oct 23 <u>8:30</u> start	JH	Measurement	Pelham Ch. 3 pp. 64 – 76 Stanovich Ch. 3	Oct 12 – <i>Assignment #1 due</i> Oct 23 – LAB– arrive at 8:30– <i>return of Assignment #1 with explanation of grading</i>
Oct 25	MIDTERM EXAM from 9:00 – 10:20 in AL 116.			

HS = Heather Smith, Psychology Undergraduate Services Officer
 JW = Professor Joanne Wood

JS = Professor Jennifer Stolz, Undergraduate Chair
 JH = Professor John Holmes

Date	Inst- ructor	Topic	Required reading	Labs, assignments, due dates
Oct 30, Nov 1, & Nov 6 8:30 start	JW	True experimental designs	Pelham Ch. 7, pp. 176-191, & Appendix 2, pp. 352-354. Pelham Ch. 5, pp. 130-144. Stanovich Ch. 7	Nov 6 – LAB– arrive at 8:30– <i>return of midterm exams with explanation of grading</i>
Nov 8, Nov 13, & Nov 15	JH	Complex experimental designs	Pelham Ch.9 Pelham Ch. 8, pp. 214-219. Stanovich Ch. 9	Nov 13 – <i>Assignment #2 will be posted on ACE.</i>
Nov 20	JW	Quasi-experimental designs	Pelham Ch. 8, pp. 211-214, pp. 219-241.	
Nov 22 & Nov 27	JH, JW	Mediation and confounds	Stanovich Ch. 8 &11	Nov 22 – <i>Quiz 2 on interaction types</i>
Nov 29	JW	Drawing conclusions	Pelham Ch. 2, pp. 50-58, Pelham Ch. 7, 206-208. Stanovich Ch. 10	Dec 3 – <i>Assignment #2 due</i>
Exam period	FINAL EXAM – time to be scheduled by Registrar sometime between December 6 and 20*			

*According to the Faculty of Arts, student travel plans are not acceptable grounds for granting an alternative final examination time (see <http://www.registrar.uwaterloo.ca/exams/finalexams.html>).

Information for Students Using UW-ACE (University of Waterloo ANGEL Course Environment)

ANGEL is a web-based course management system that enables instructors to manage course materials (posting of lecture notes etc.), interact with their students (drop boxes for student submissions, on-line quizzes, discussion boards, course e-mail etc.), and provide feedback (grades, assignment comments etc.). The degree to which UW-ACE is utilized in a particular course is left to the discretion of the instructor and therefore, you may find a large variance in how UW-ACE is being used from one course to another.

Logging Into UW-ACE

Since UW-ACE is a web-based system, you will need a browser. Although you may have success with other Web browsers, we strongly recommend that you use the following for best access results.

PCs

Netscape 7.1 or higher or Internet Explorer 6.0 or higher or Mozilla 1.4 or higher. We have had the best success with Netscape 7 or higher.

Macintoshes

Mozilla 1.4 or higher for OS X

Note: Internet Explorer for the Mac will **not** work with ANGEL.

Once you have started up your browser, type in the following URL:

<http://uwace.uwaterloo.ca>

Provide your Quest/UWdir userid and password. Once you have logged in, you should see a list of your UW-ACE courses under the Courses header bar. Clicking on the course name will take you to that course.

Checking Your Userid and Password

Your password can be checked by going to:
<http://ego.uwaterloo.ca/~uwdir/UW-Passwd.html>

If your password check fails, you can unlock your password and receive a new one by going to:
<http://ego.uwaterloo.ca/~uwdir/UnLock.html>

If you still can not get on after checking and resetting your password, please confirm with your instructor that you are on the class roster. Only students with courses using UW-ACE will have access to the site.

Getting Help

A UW-ACE student guide can be found by selecting **Help** on left hand panel of the UW-ACE home page, and selecting the hyperlink **UW-ACE (ANGEL 6.2) Student Quickstart Guide**. Additional queries can be sent to **uwacehelp@ist.uwaterloo.ca**.

Participation in Psychology Research: Guidelines for Psychology Undergraduate Courses

Experiential learning is considered an integral part of the undergraduate program in Psychology. Participation in research is one example of this. A number of undergraduate courses have been expanded to include opportunities for Psychology students to volunteer as research participants enabling them to learn first-hand about psychology research and related concepts. Many students report that participation in research is both an educational and interesting experience.

Student participants may earn up to 4 percentage points towards their final mark in Psychology 291 by participating in studies conducted by students and faculty in the Department of Psychology. Participation is worth .5 participation credits (percentage points) for each half hour session. Researchers will record student's participation and will advise the course instructor of the total points earned by each student at the end of the term. Students who do not wish to participate in research may choose an alternative approach to earning the same number of points; this is explained below in "Alternative to participating in research".

Since experiential learning is highly valued in the Department of Psychology, students can earn a "bonus" of 4% by participating in these experiments (i.e., the maximum possible final grade is 104%).

Please note that all Psychology studies have undergone prior ethics review and clearance through the Office of Research Ethics.

Educational focus of participation in research

To maximize the educational benefits of participating in research, students will receive feedback information following their participation in each study detailing the following elements:

- Purpose or objectives of the study
- Dependent and independent variables
- Expected results
- References for at least two related research articles
- Provisions to ensure confidentiality of data
- Contact information of the researcher should the student have further questions about the study
- Contact information for the Director of the Office of Research Ethics should the student wish to learn more about the general ethical issues surrounding research with human participants, or specific questions or concerns about the study in which sh/he participated.

Alternative to participating in research

Students are not required to participate in research, and not all students wish to do so. As an alternative to participation in research, students may opt to review articles relevant to psychology and write a short 1 page review. Each review article counts as one percentage point. *[The instructor should note whether articles will be provided or give guidance with regard to the sorts of articles that students can use].* The review must:

- Be submitted by (date)
- Be typed
- Include title, author, source and date of the article. A copy of the article must be attached.
- Identify the psychological concepts in the article and indicate the pages in the text that are applicable.
- Clearly evaluate the application or treatment of those concepts in the article.

Students may complete any combination of a) participation in research or b) article review up to a total of 4% points.

How do I sign up?

REG has created an account for you on SONA (our web-based Study Sign-Up system) at <http://uwaterloo.sona-systems.com>. User ID is your Quest ID (eg. j2smith), temporary password is your Student ID (eg 2001234). Log in to your account, read/acknowledge the ORE “Human Subjects/Privacy Policy” then complete a very brief (5-10 minute) “Prescreen” questionnaire to provide basic demographic info. You won’t receive a credit for this and you may decline if you wish however completing it will increase your eligibility for other studies. Once you have completed (or declined) the Prescreen questionnaire you should go to “My Profile” and enter your preferred (Alternate) email address. Then you can go to “Study Sign-Up” and select a Psych 291-eligible study that interests you and a day/time that fits your schedule. You’ll receive a confirmation email and a reminder the day before the study. Upon completion of the study you are granted your Study Credit and given feedback about the study hypothesis, design and predictions. You can use this to complete the Experimental Write-Up (the professor will explain this).

When should I sign up?

Right away, the sooner the better!!! The On-line study “Mass Testing Survey F07” (one full credit) will only be offered for a few weeks and you should do this study as soon as possible. Researchers often select participants based on their responses and doing this survey increases your eligibility for other studies. Note that you can only do this survey if you have completed the Prescreen questionnaire. We’d appreciate it if you’d do both.

Are there any restrictions to the studies I can sign up for?

Yes ... i) the study must be eligible for a credit in this class (as noted in the study description) ii) only 2 of your 4 credits can be for On-line studies and iii) you should try to spread your participation out over the term. The last day to participate for credit is Dec 3. You can participate for pay anytime.

Where can I get more information, instructions, help with login problems etc?

REG website: <http://www.arts.uwaterloo.ca/~regadmin/regparticipant>
REG Coordinator: regadmin@watarts.uwaterloo.ca