

Psychology 291
BASIC RESEARCH METHODS

Fall 2008

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:		
Amanda Hogle	Colleen Merrifield	Daniel Nadolny	Stephanie Waechter
PAS	PAS	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 near the end of this outline.

Lectures

You are responsible for all material presented in lectures, including any announcements. Most of the lecture material will *not* be covered in the book.

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@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 Reading:

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

Note that there is almost no overlap between this book and the lecture content.

Assignments: The assignments are designed to expose students to a procedure, a method, or an issue in the research methods of psychology. 33% of the final grade in this course is associated with the two assignments. 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” or “.docx” as a suffix. No other formats (e.g., WordPerfect) are acceptable. 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: (1) Interpreting Graphs, (2) Correlations and third variables, (3) Regression to the Mean, (4) Interactions, and (5) Mediation. All students must access these activities (ACE will record who accesses these activities), and complete the quizzes that are presented. These activities will be made available on ACE about a week before they are due to be completed. Each online activity will be worth 1% of the final course grade. However, students will vary in how much time they spend using these activities, depending on their prior exposure to these topics and on their motivation to learn the topics.

Research Participation: Students may earn extra credit of up to 4 points (over the 100% total of their final course mark) through participating in the REG/SONA Psychology Participant Pool, with 2 credits available before the midterm and 2 after.

Quizzes: Two in-class, short, 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 21; the final will cover all lectures and assigned readings after the midterm (i.e., the final will not be cumulative). Each exam counts for 25% of the course 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:		
Interpreting graphs	Sept 16	1%
Correlations	Oct 2	1%
Regression to the mean	Oct 9	1%
Interactions	Nov 18	1%
Mediation	Nov 26	1%
Quiz on basics of research design	Oct. 7	8%
Quiz on types of interactions in factorial designs	Nov 20	4%
Assignments:		
1 – correlational and basic experimental designs	Oct. 14	15%
2 – designing a factorial experiment	Dec 2	18%
Midterm exam	Oct 23	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@uwaterloo.ca or at 888-4567, x36512. **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 Integrity

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 someone to copy your assignment, are 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 Integrity, continued

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

The Faculty of Arts now requires that the following message be included on all syllabi distributed in the Faculty of Arts:

Academic Integrity: in order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 – Student Discipline,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 – Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>

Avoiding Academic Offences:

http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html

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: (1) change your email address on QUEST to the one that you want posted on the University Directory, or (2) 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.

Date	Inst- ructor	Topic	Required reading	Labs, assignments, due dates
Sept 9	HS, CE, JH, JW	Orientation for psych majors Introduction to course	Stanovich preface	
Sept 11 & Sept 16	JH	Philosophy and history of science	Stanovich Ch. 1, Ch. 2, Ch. 12	Sept 16 – “Interpreting graphs” on- line activity must be completed by 8 pm
Sept 18 & Sept 23	JW	Basics of research design	Stanovich Ch. 6	Sept 19 – <i>Materials for Basics Quiz</i> <i>will be available on ACE. Read and</i> <i>print these before the quiz on Oct. 7.</i>
Sept 25 & Sept 30	JH	Nonexperimental designs	Stanovich Ch. 4 Stanovich Ch. 5 pp. 73-79	Oct 2 – “Correlations” on-line activity must be completed by 8 pm Oct 2 - <i>Assignment #1 will be posted</i> <i>on ACE.</i>
Oct 2, 8:30 start Oct 7, Oct. 9	JW	Threats to internal validity	Stanovich Ch. 5 pp. 80 – 83	Oct 7 – Basics Quiz – arrive at 8:30– <i>Bring the materials.</i> Oct 9 – <i>return of Quiz 1 results with</i> <i>explanation</i> Oct 9 – “Regression to the mean” on- line activity must be completed by 8 pm
Oct 14, Oct 16, Oct 21 8:30 start	JH	Measurement	Stanovich Ch. 3	Oct 14 – <i>Assignment #1 due by 1 pm</i> Oct 21 – LAB– arrive at 8:30– <i>return</i> <i>of Assignment #1 with explanation of</i> <i>grading</i>
Oct 23	MIDTERM EXAM from 9:00 – 10:20 in AL 116.			

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

CE = Professor Colin Ellard , Undergraduate Chair
 JH = Professor John Holmes

Date	Inst- ructor	Topic	Required reading	Labs, assignments, due dates
Oct 28, Oct 30, & Nov 4 <u>8:30</u> start	JW	True experimental designs	Stanovich Ch. 7	Nov 4 – LAB– arrive at 8:30– <i>return of midterm exams with explanation of grading</i>
Nov 6, Nov 11, & Nov 13	JH	Complex experimental designs	Stanovich Ch. 9	Nov 14 – <i>Assignment #2 will be posted on ACE.</i>
Nov 18	JW	Interpreting results		Nov 18 – “Interactions” on-line activity must be completed by 8 pm
Nov 20, Nov 25, & Nov 27	JW & JH	Mediation and confounds	Stanovich Ch. 8 & 11 Stanovich Ch. 10	Nov 20 – <i>Quiz 2 on interaction types</i> Nov 26 – “Mediation” on-line activity must be completed by 8 pm Dec 2 – <i>Assignment #2 due by 1 pm</i>
Exam period	FINAL EXAM – time to be scheduled by Registrar *			

* 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

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.

1. 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:

2. Choosing a Browser

ANGEL is designed to support the widest variety of client-side operating systems and client-side browsers through its limited use of client-side technologies. While ANGEL products generally function well in many browsers, the following are formally supported and tested:

- With PCs running Windows OS: Internet Explorer, Firefox and Mozilla
- With Macs running OS X: Firefox and Mozilla

Testing is performed on the latest generally available versions for the above platforms and browsers with each General Release of ANGEL products, ensuring full support at that time. For additional information on browser support please visit <http://support.angellearning.com>.

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

3. Locating UW-ACE on the Web

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

<http://uwace.uwaterloo.ca> or go to the University of Waterloo's homepage and select the **UW-ACE** hyperlink


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.

4. 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.

5. **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 **ANGEL 7.2 Student Guide -- Quickstart Overview Guide**.

Additional queries can be sent to uwacehelp@ist.uwaterloo.ca.

Participation in Psychology Research: Guidelines for Psychology 291, Fall 2008

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 Psychology 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.

How do I sign up?

Once you are registered in the course, you will get an account 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 (e.g., 2001234). Log in to your account, read/acknowledge the ORE "Human Subjects/Privacy Policy" then complete a very brief (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.

When should I sign up?

Right away, the sooner the better!!! The On-line study "Mass Testing Survey F08" (one full credit) will be offered only 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. Doing both Prescreen and Mass Testing Survey helps

you (by providing more qualifying studies) and it helps researchers (by identifying more qualified participants) so we would greatly appreciate it if you would 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 may earn two credits before the midterm and two after the midterm. The last day to participate for credit is December 1 but you can participate for pay until December 19.

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

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 submit short reviews (1½ to 2 pages) of academic journal articles. Please get approval of your choice of journal article from the Head TA. Each review article counts as one percentage point. You should contact your TA to get approval before writing the review. To receive credit, you must follow specific guidelines. The review must:

- **Be submitted by November 25. Late submissions will NOT be accepted under ANY circumstances.**
- Be typed
- Fully identify the title, author(s), source and date of the article. A copy of the article must be attached.
- Identify the research methods concepts in the article
- Clearly evaluate the application or treatment of those concepts in the article.
- Keep a copy of your review in the unlikely event we misplace the original.

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