

Psychology 291
BASIC RESEARCH METHODS

Fall 2011

Lectures: 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 more advanced methods courses (e.g., PSYCH 392-398).

Instructors

Professor Joanne V. Wood
PAS 3051
Office hours: Tuesday lectures will be followed by an open office hour (until 11:20). If these times do not suit you, please speak to the instructor about arranging an appointment.

Head TA:	Teaching Assistants:				
Courtney Plante	Vedran Dzebic	Greta James	Kaylena Martens	Karly Neath	Lisa Verge
PAS 3240F	PAS 2254	PAS 4048	PAS 2254	PAS 2248	PAS 3046
Office hours: F: 1:00-2:00	Office hours: W: 12:30-1:30	Office hours: Th:10:30-11:30	Office hours: M: 3:00-4:00	Office hours: M: 12:30-1:30	Office hours: T: 3:00-4:00

UW-ACE Course 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

Normally, class sessions will begin at 9:00, but at times to be announced, class will begin at 8:30. You are responsible for all material presented in lectures, including any announcements.

Graded assignments and exams will be returned to students either through ACE or during class sessions. If you receive feedback through ACE, please print it out and bring it to the class feedback session. In the feedback session, the correct answers and the marking scheme will be presented. Sorry, but the class is too big for the TAs to review the marking schemes with individual students. **Attend the class sessions if you want to understand the marking!** Any disputes about marking must be brought to the attention of a TA or the instructor within one week of receiving the mark.

Contacting Instructors

All students are encouraged to seek information and help from the instructor 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 through ACE, 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. (2010). *How to think straight about psychology*. 9th Edition. Allyn & Bacon Publishers. [Both the 7th and 8th editions may be used instead of this new version. They are substantially the same. Note that there is almost no overlap between this book and the lecture content.]

Empirical articles. Six psychology journal articles will be made available on ACE. These will be used in quizzes so students can apply the concepts presented in lecture.

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. These on-line activities will be made available on ACE about a week before they are due to be completed. All students are required to access these

activities and complete the quizzes that are presented. Each online activity will be worth 1% of the final course grade. Note that although your use (yes/no) of the on-line activities will be recorded for grading purposes (ACE will record who accesses these activities), the on-line quizzes will not be used for course grading; they are for your own learning only. Students 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 concepts.

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.

In-Class Quizzes: A short quiz will be administered nearly every Thursday—10 in all. The goal is to: (1) give students practice applying the concepts presented in lecture, (2) help students recognize any difficulties they may be having before a major assignment or exam, and (3) inform the instructor about what material needs further review. These quizzes together count for 16% of the final grade. Your two weakest quiz marks will be dropped from your final quiz mark.

Exams: Midterm and final exams will consist of multiple choice questions and short essay questions. The midterm will cover all lectures and readings from the beginning of the course up to the midterm. The final will cover all lectures and readings after the midterm. In addition, about 10% of the final will concern lecture material presented before the midterm (i.e., the final is cumulative with respect to lecture material, not textbook). 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.

Weighting of requirements for course grades

	Date due	Weight in final grade
On-line activities:		
Interpreting graphs	Sept 20	1%
Correlations	Oct 7	1%
Regression to the mean	Oct 13	1%
Interactions	Nov 22	1%
Mediation	Nov 30	1%
10 Quizzes	Nearly every Thursday	16%
Assignments:		
1 – correlational designs	Oct. 18	15%
2 – designing experiments	Dec 5	18%
Midterm exam	Oct 27	22%
Final exam	Exam period	24%

Any disputes about marking must be brought to the attention of a TA or the instructor within one week of receiving the mark.

Illness/Emergencies

Students who are requesting accommodation for course requirements (assignments, midterm tests, final exams, etc.) due to illness should do the following:

- seek medical treatment as soon as possible and obtain a completed UW Verification of Illness Form: http://www.healthservices.uwaterloo.ca/Health_Services/verification.html
- submit that form to the instructor within 48 hours.
- inform the instructor by the due date for the course requirement that you will be unable to meet the deadline and that documentation will be forthcoming.

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 send an email through the ACE page or leave a message at 888-4567, x36512.

You do not need to follow these procedures for absences of two in-class quizzes. Two quiz absences for any reason do not require make ups. Any additional absences will require appropriate documentation and students will take an equivalent quiz at the final exam seating.

In the case of a missed assignment deadline or midterm test, the instructor will either: a) provide an extension, or b) under special circumstances, waive the course component and re-weight remaining term work as she deems fit, in line with the goals of the course.

In the case of a missed final exam, the instructor and student will negotiate an extension for the final exam which will be written as soon as possible, but no later than the next offering of the course.

In the case of bereavement or a crisis in your personal or family life, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.

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 special accommodation in Week 12.

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

Messages from the Department of Psychology and the Faculty of Arts

The Official Version of the Course Outline

If there is a discrepancy between the hard copy outline (*i.e., if students were provided with a hard copy at the first class*) and the outline posted on ACE, the outline on ACE will be deemed the official version. Outlines on ACE may change as instructors develop a course, but they become final as of the first class meeting for the term.

Accommodations for Students with Disabilities

The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

Concerns About the Course or Instructor (Informal Stage)

We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Affairs (Dr. Colin Ellard) is available for consultation and to mediate a resolution between the student and instructor. Dr. Ellard's contact information is as follows:

Email: cellard@uwaterloo.ca
Ph 519-888- 4567 ext 36852

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. See Policy 70 and 71 below for further details.

Academic Integrity, Academic Offenses, Grievance, and Appeals

To protect course integrity, as well as to provide appropriate guidance to students, course outlines in the Faculty of Arts must include the following note on avoidance of academic offenses:

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. [Check <http://www.uwaterloo.ca/academicintegrity/> for more informaton.]

Discipline: A student is expected to know what constitutes academic integrity [check <http://www.uwaterloo.ca/academicintegrity/>] , 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 instructor, 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>

Academic Integrity website (Arts):

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

Academic Integrity Office (UW): <http://uwaterloo.ca/academicintegrity/>

Plagiarism

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.

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

Message from Heather Smith: It is your responsibility to check 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>

The home page for the psychology department: <http://www.psychology.uwaterloo.ca/>

Schedule for Term

Date	Topic	Required reading	Assignments, due dates* Possible quiz every Thursday. Check ACE page.
Sept 13	Introduction to course Orientation for psych majors	Stanovich preface	
Sept 15 & Sept 20	Basics of research design	Stanovich Ch. 6	Sept 20 – “Interpreting graphs” on-line activity must be completed by 11 pm
Sept 22 & Sept 27	Philosophy of science	Stanovich Ch. 1, Ch. 2, Ch. 12	
Sept 29 & Oct 4	Nonexperimental designs	Stanovich Ch. 4 Stanovich Ch. 5 pp. 73-80	Oct 5 – “Correlations” on-line activity must be completed by 11 pm Oct 5 - <i>Assignment #1 will be posted on ACE.</i>
Oct 6, Oct 11, & Oct. 13	Threats to internal validity	Stanovich Ch. 5 pp. 80 – 84	Oct 13 – “Regression to the mean” on-line activity must be completed by 11 pm
Oct 18, Oct 20, & Oct 25	Measurement	Stanovich Ch. 3	Oct 18 – <i>Assignment #1 due by 1 pm</i> Oct 25 – <i>return of Assignment #1 with explanation of grading</i>
Oct 27	MIDTERM EXAM from 9 – 10:20 in AL116 or alternate assigned room		

* Inform the instructor as soon as possible if any accommodation is required for religious observances.

Date	Topic	Required reading	Assignments, due dates*
Nov 1, Nov 3, & Nov 8	Experimental designs	Stanovich Ch. 7	Nov 8 — <i>return of midterm exams with explanation of grading</i>
Nov 10, Nov 15, & Nov 17	Complex experimental designs	Stanovich Ch. 9	Nov 17 – <i>Assignment #2 will be posted on ACE.</i>
Nov 22	Interpreting results	Stanovich Ch. 8	Nov 22 – “Interactions” on-line activity must be completed by 11 pm
Nov 24, Nov 29, & Dec 1	Mediation and confounds	Stanovich Ch. 10 & 11	Nov 30 – “Mediation” on-line activity must be completed by 11pm Dec 5 – <i>Assignment #2 due by 1 pm</i>
Exam period	To be scheduled by registrar. Exams begin: Thursday, December 8. Exams end: Thursday, December 22 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).		

* Inform the instructor as soon as possible if any accommodation is required for religious observances.

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.

Research Experience Marks Information and Guidelines

Experiential learning is considered an integral part of the undergraduate program in Psychology. Research participation is one example of this, article review is another. A number of undergraduate courses have been expanded to include opportunities for Psychology students to earn grades while gaining research experience.

Since experiential learning is highly valued in the Department of Psychology, students may earn a **"bonus" grade of up to 4%** in this course through research experience. Course work will make up 100% of the final mark and a "bonus" of up to 4% may be earned and will be added to the final grade if/as needed to bring your final grade up to 100%.

The two options for earning research experience grades (participation in research and article review) are described below. Students may complete any combination of these options to earn research experience grades.

Option 1: Participation in Psychology Research

Research participation is coordinated by the Research Experiences Group (REG). Psychology students may volunteer as research participants in lab and/or online (web-based) studies conducted by students and faculty in the Department of Psychology. Participation enables students to learn first-hand about psychology research and related concepts. Many students report that participation in research is both an educational and interesting experience. Please be assured 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 s/he participated.

Participation is worth 0.5 participation credits (grade percentage points) for each half-hour of participation. Researchers will record student's participation and will advise the course instructor of the total credits earned by each student at the end of the term.

Study scheduling, participation and grade assignment is managed using the SONA online system. All students enrolled in this course have been set up with a SONA account. It is VERY IMPORTANT that you get an early start on your studies. For detailed instructions on when and how access your SONA account and for a list of important dates and deadlines please, as soon as possible, click on:

<http://www.arts.uwaterloo.ca/~regadmin/regparticipant/sonainfo/#SonaSignUp>

**** Please do not ask the Course Instructor or REG Coordinator for information unless you have first thoroughly read the information provided on this website. ****

More information about the REG program is available at:
<http://www.arts.uwaterloo.ca/~regadmin/regparticipant/>

Option 2: Article Review as an alternative to participation in research

Students are not required to participate in research, and not all students wish to do so. As an alternative, students may opt to gain research experience by writing short reviews (1½ to 2 pages) of research articles relevant to the course. The course instructor will specify a suitable source of articles for this course (i.e., scientific journals, newspapers, magazines, other printed media). *You must contact your TA to get approval for the article you have chosen before writing the review.* Each review article counts as one percentage point. To receive credit, you must follow specific guidelines. The article review must:

- **Be submitted before the last lecture. 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 psychological concepts in the article and indicate the pages in the textbook that are applicable. Critically evaluate the application or treatment of those concepts in the article. If inappropriate or incorrect, identify the error and its implications for the validity of the article. You may find, for example, misleading headings, faulty research procedures, alternative explanations that are ignored, failures to distinguish factual findings from opinions, faulty statements of cause-effect relations, errors in reasoning, etc. Provide examples whenever possible.
- 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.