

**PSYCHOLOGY 399:  
RESEARCH IN INDUSTRIAL & ORGANIZATIONAL PSYCHOLOGY**

Department of Psychology  
Fall 2011-12

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Class Schedule/Location: **Monday & Wednesday: 10:00 – 11:20, HH 373**

Background Reading: Your Psychology 291 texts: Pelham & Blanton, *Measuring the weight of smoke*. Stanovich, *Critical thinking in psychology*.

Reference Source: American Psychological Association. (2001). *Publication Manual of the American Psychological Association* (6<sup>th</sup> ed.). Washington, DC: Author.

Content of Course and Objectives

This course aims to develop your ability to critically evaluate and conduct research in I/O psychology and in psychology in general. We will cover the methods most commonly used in the study of I/O psychology, and will discuss several design and statistical issues of particular importance in field research. Students will leave the course with (a) a comprehensive understanding of a variety of research methods applicable to the study of I/O psychology, and (b) a heightened ability to critically evaluate research in I/O psychology (and psychology more generally), as well as in related fields such as organizational behaviour.

Format of the Course

The course is structured as a series of discussions of prescribed readings. The readings are organized around a particular methodology or issue, and will provide a base from which relevant methodological, theoretical, and practical issues can be addressed. I have an extended reading list on hand, for those of you who are interested in pursuing specific topics in greater detail.

Note that this course is intended to build on earlier method courses you have taken, and as such we will generally discuss methodology in the context of empirical research. This has two advantages: it will allow us to discuss more complex methodological issues in the context of actual research; at the same time, it will expose you to a variety of research topics and theoretical issues in the field of I/O Psychology.

As noted below, one of the requirements for this course is a research proposal. You will formulate a research idea and design at least one study (and a maximum of two studies) to test your idea employing various methods discussed in class. The course TA and I will be happy to help you develop and refine your research proposal throughout the term.

### Evaluation

**1. In-class participation: 15% of your grade.** This is an advanced undergraduate seminar, and I am keen to hear from you; therefore you have a rare opportunity to actively participate in discussions of the material, regardless of whether or not you are a discussion leader (see below) in any particular class. The seminar has the potential to be a valuable and rewarding learning experience, but that is largely determined by you. I would suggest that **in preparing for each meeting you do several things:** First, read the assigned article carefully and summarize (in writing) the major ideas, issues, and conclusions. Second, spend some time giving serious thought to the issues raised and to the implications of the material for future research and/or for the practical management of problems in the workplace. You should then find it is quite easy to come to each class with questions, observations, criticisms, praise, and so on. **Everyone is expected to bring forth his or her observations every class.** (Note: I will grade your participation each session immediately following our class, and later create a composite of these grades, so as to avoid potential rater biases.)

Note that your in-class participation **also includes a presentation** (in groups) of your preliminary research proposal (see point 4 below) in the last few weeks of class.

**A word on attendance:** Obviously, your in-class participation grade is affected by attendance: If you are not present in class, then you have not participated, and so would **receive a zero for that session.** If a student is absent once, I will “overlook” this (your grade will not be affected). Absence beyond once, will however adversely affect your participation grade. If you are away for medical reasons (or another emergency), please let me know (before class or the day of class), and you will need to provide the appropriate documentation consistent with UW policy (see notes from Arts Faculty below).

**2. Discussion Leader: 15% of your grade.** In small groups (size will depend on class size), you will be responsible for leading discussion each session. Obviously, your written thoughts (from point 1 above) can serve as the basis for how you will lead the discussion. In leading discussion, you should assume that all of us have read the readings--in other words, your role is not merely to summarize the readings. Rather, you should have questions, comments, observations, critical evaluations, and so forth, to put to the class. *Note that students are expected to contribute in a meaningful way even when they are not the discussion leader.* Thus being discussion leader does not mean that you should dominate the discussion; instead, you will be responsible for guiding the discussion and keeping it going. You should aim to lead the discussion for about 50 minutes of the 80-minute class period; I will interject throughout and/or at the end of the discussion to cover methodological issues in greater depth (normally requiring 20-30 minutes). **Note: When you are discussion leader, bring in two copies of your questions/comments.** One copy is for me to keep.

**3. Test: 30% of your grade.** Toward the end of the term (see topic list attached), you will write an exam that will test knowledge gained throughout the preceding weeks. The exam will test your abilities in formulating appropriate research designs, interpreting data, depicting data from results, and critiquing methodology.

**4. Research Proposal: 40% of your grade.** You will also develop a research proposal in small groups (size depends on class size). You will need to meet with your group members throughout the term outside of class. The proposal is due on **Friday, Dec. 9**. The maximum length of the proposal will be 10 standard pages (12 point font, double spaced, 1 inch margins all around), excluding references and tables, etc. Anything beyond 10 pages will not be considered, and the penalty for late submissions is 5% per day.

In the last few weeks of class, you will present your initial proposal in pairs to the class (**20-30 minute presentation** depending on class size) and receive feedback from the instructor and other class members. You should present the theoretical background and rationale, your hypotheses, operationalizations, design and method, expected results, and implications.

Note that, although you will develop the research proposal in pairs or small groups, ultimately you will each write up the proposal individually.

In brief, the goal of the research proposal is to develop a research question that you consider interesting and worthy of study, and to design a study (or at maximum two studies) to investigate it. You will need to locate, read, and report on relevant research that pertains to the rationale for your research question. The proposal should contain no less than 4 references (and it need not be more than 10). The objective for this course is not to conduct an exhaustive literature review; rather you need only a sufficient background to develop your idea. The focus in this course is on how you decide to test your question(s).

Your proposal should be in APA format and include: a) an introduction section—in which your hypotheses are developed and proposed), b) a method section—in which the research design, procedure, and measures are described, c) a results section—in which the expected pattern of results is described, and d) a discussion section—in which the implications of the results for theory, practice and future research, as well as the limitations are discussed. In addition, you will include an appendix, containing all the measures, questionnaires, or other materials needed to conduct your study.

Some of the major relevant scientific journals to which you may wish to refer (all available in the Dana Porter Library or most via Psych Info):

*Journal of Applied Psychology*  
*Personnel Psychology*  
*Organizational Behavior and Human Decision Processes*  
*Journal of Organizational Behavior*  
*Academy of Management Journal*  
*Journal of Personality and Social Psychology*  
*Personality and Social Psychology Bulletin*  
*Psychological Bulletin*

## Messages from the Faculty of Arts Council

**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](http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html)

### **Accommodation for course requirements:**

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](http://www.healthservices.uwaterloo.ca/Health_Services/verification.html)
- submit that form to the instructor within 48 hours.
- (preferably) 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.

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

In the case of a missed assignment deadline or midterm test, the instructor will either

- a) waive the course component and re-weight remaining term work as he/she deems fit according to circumstances and the goals of the course, or
- b) provide an extension.

In the case of bereavement, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.

Students who are experiencing extenuating circumstances should also inform their academic advisors regarding their personal difficulties.

More Detail on Preparation for Class:

As stated above, you should all have a few questions/observations to bring to class each week. Below are some additional general points that might aid you in this regard. These questions should NOT limit or constraint your thinking. You will, undoubtedly, have other insights that you are encouraged to share with the class.

1. Are there any observations you make as you read the articles? For example, do you see inconsistencies/parallels to readings from a previous week? Are there aspects of the various theories that are competing, or can they be reconciled? Are there any consistencies/discrepancies to what you have observed in the organization?
2. Are you skeptical about the basis of any of ideas or the conclusions? Why? Any methodological concerns?
3. In what way did you feel heartened and/or disheartened by the readings, with respect to your understanding about theory and research on behavior in the workplace.
4. What did you learn that seemed counterintuitive to you? What seemed to be something “your grandmother could have told you”?
5. What did you want to most want to know--both as a scientist and a practitioner--after reading the work?
6. What applications did you take away from what you read? Or, alternatively, are there any problems (or limits) that you see to as far as application?
7. What’s the next study you see as necessary?

### Suggestions for Effective Use of Readings in a Seminar

Here are some questions that you might find useful to consider when reading articles. Of course, depending on the nature/purpose of the article, some of these questions may apply more or less readily. These questions will not only help you prepare for class discussions, but also they underlie an effective research proposal.

1. Statement of the theory or key assumptions and tenets underlying the research (in empirical articles) or the conceptual framework provided (in review articles):

To understand the basic ideas, or principles, underlying the research, identify:

a) What are the major variables involved in explaining the phenomenon under investigation (e.g., commitment to the organization)? Note that some of the variables may be presumed to be antecedents, others may be moderators, and still others may be mediators. (If you are not clear on these terms, this is something to bring up in class!) You should thus not only identify the variables, but also indicate their presumed role.

b) Once you identify the major variables, indicate how they act to influence the phenomenon under investigation. That is, outline the process explaining why the effects are expected, according to the particular perspective.

Your answers for a) and b) may be brief, but what you should end up with is an outline of the particular theory or assumptions underlying the phenomenon of interest.

2. Also, you should indicate what the fundamental assumptions underlying the approach are. For example, what must we assume about the nature of humans to buy a particular theoretical framework? (You might indicate assumptions first, then follow with the tenets of the theory.)

## WEEKLY TOPIC AND READING LIST

### Sept 12 & 14

#### Introduction

- Mon: Overview of course & Intro to I/O Psychology  
Wed: Scientific Process & Overview of Methods

### Sept 19 & 21

#### Theory, Constructs, and Hypothesis Generation

- Mon: Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). *Research methods in social relations* (6<sup>th</sup> ed.) Holt, Rinehart and Winston, Inc. Chapter 2: Examining Social Relations Research

Sackett & Larson (1990) article. Research Strategies and tactics in I/O Psychology. **pp 420-428**

Daft, R.L. (1984). Antecedents of significant and not-so-significant organizational research. In Bateman, J.S., & Ferris, G.R. (Eds.) *Methods and analysis in organizational research*. (pp. 3-14). Reston, VA: Prentice Hall.

- Wed: **Bring in your research ideas for discussion**

### Sept 26 & 28

#### Psychological Measurement and Construct Validity

- Mon: Allen, N.J. & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.

- Wed: Judge, T., Erez, A., Bono, J. E, Thorensen, C. J. (2003). The core self-evaluations scale. Development of a measure. *Personnel Psychology*, 56, 303-331.

### Oct 3 & Oct 5

#### Survey Design and Analysis 1 (Mediation in Survey Design)

- Mon: Folger, R. & Konovsky, M. A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal*, 32, 115-130.

- Wed: Judge, T. A., & Higgins, C. A. (1998). Affective disposition and the letter of reference. *Organizational Behavior and Human Decision Processes*, 75, 207-221.

### Oct 10 & 12

#### Moderation in Survey Design

- Mon: Thanksgiving – Enjoy!

Wed: Witt et al. (2002). The interactive effects of conscientiousness and agreeableness on job performance. *Journal of Applied Psychology*, 87, 164-169.

**Oct 17 & 19 Survey Design & Analysis 2: Longitudinal Analysis**

Mon: **Research Workshop: Bring ideas and preliminary methods for discussion in class (split class)**

Wed: Tay, C., et al. (2006). Personality, biographical characteristics, and job interview success: A longitudinal study of the mediating effects of interviewing self-efficacy and the moderating effects of internal locus of causality. *Journal of Applied Psychology*, 91, 446-454.

**Oct 24 & 26 Experimental Design and Analysis 1**

Mon: Howell, J. M. & Frost, P. J. (1989). A laboratory study of charismatic leadership. *Organizational Behavior and Human Decision Processes*, 43, 243-269.

Wed: **Research Workshop: Bring hypothesis and proposed method for discussion in class (split class)**

**Oct 31 & Nov 2 Experimental Design and Analysis 2: Moderation & Mediation**

Mon: Greenberg, J. (1993). Stealing in the name of justice: Informational and interpersonal moderators of theft reactions to underpayment inequity. *Organizational Behavior and Human Decision Processes*, 54, 81-103.

Wed: Allen, T.D., & Rush, M.C. (1998). The effects of organizational citizenship behavior on performance judgments: A field study and a laboratory experiment. *Journal of Applied Psychology*, 83, 247-260.

**Nov 7 & 9 Quasi-Experimental Design**

Mon: **Turn in 1 pg (max) synopsis of research idea(s) and proposed method  
Tutorial - Writing a Research Proposal**

Wed: Schmitt & Klimoski (1991), pp 386-391. (for background)  
Greenberg, J. (2006). Losing sleep over organizational injustice: Attenuating insomniac reactions to underpayment inequity with supervisory training in interactional justice. *Journal of Applied Psychology*, 91, 58-69.

**Nov 14 & 16**

Mon: Q & A Review Session

**Wed: Test**

**Nov 21 & 23**

Mon: **Prepare presentations**

Wed: Presentations

**Nov 28 & 30**

Mon: Presentations

Wed: Presentations

**Dec 5**

Mon: Presentations

**PROPOSAL DUE: Friday, Dec 9, 2011 (due by 4:00 pm)**

## **Discussion Leaders**

<b>Mon, Sept 19</b>	Theory, Constructs, Hypothesis Generation
<b>Mon, Sept 26</b>	Measurement and Construct Validity
<b>Wed, Sept 28</b>	Measurement and Construct Validity
<b>Mon, Oct 3</b>	Survey Design
<b>Wed, Oct 5</b>	Mediation in Survey Design
<b>Wed, Oct 12</b>	Moderation in Survey Design
<b>Wed, Oct 19</b>	Survey Design & Analysis II (Longitudinal)
<b>Mon, Oct 24</b>	Experimental Design & Analysis I
<b>Mon, Oct 31</b>	Experimental Design & Analysis II: Mediation & Moderation
<b>Wed, Nov 2</b>	Experimental Design & Analysis II: Mediation & Moderation
<b>Wed, Nov 9</b>	Quasi-Experimental Design

**Proposal due: Wed, Dec 9, 2009 (due by 4:00 pm)**