

**UNIVERSITY OF VICTORIA | DEPARTMENT OF PSYCHOLOGY  
PSYC 401 (A01) – Measurement of Psychological Processes**

**Fall 2016**

T 2:30-4:20pm

F 2:30-3:20pm

DSB C130

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## **ABOUT THIS COURSE**

This course aims to familiarize students with different attributes of psychological measurements. We will review different methods of evaluating the reliability and validity of psychological measurements and how the correlational structure of psychological measurements relates to these concepts. As an advanced methods course, the goal is to develop students' critical understanding of the core concepts by encouraging students to (1) actively engage in discussion of class material (2) relate different topics in the course to specific psychological measurements in a brief presentation (3) writing-up a final paper to analyze the psychometric properties of measurement that are related to their honors thesis. There will also be 2 midterms and 2 homework assignments to evaluate students' knowledge of the psychometric topics covered throughout the course.

### **Course Website**

All course materials including lecture slides, assignments, and grades are/will be posted on CourseSpaces (<http://coursepaces.uvic.ca>). All announcements and other important information regarding UVic's policies for academic integrity will also be posted on this site. You can access CourseSpaces by signing in with your NetLink ID.

### **Prerequisites**

The prerequisites for Psyc 401 include completion of Psyc 100A, 100B, 201 and a minimum grade of B+ in Psyc 300A. Please note: Permission of the instructor is required if the student is not in the Psychology Honours program.

## **REQUIRED MATERIALS**

**(Textbook):** Furr, R. M., & Bacharach, V. R. (2013). *Psychometrics: An introduction* (2nd Ed.). Thousand Oaks, CA: Sage Publications Inc.

**Additional Readings:** For some of the lectures, I might suggest additional reading materials. You will not be evaluated on these additional readings.

## EVALUATION AND GRADING

Item	Percent of Final Grade	Date
Participation	15%	~Once or twice per week
Homework Assignments	10% (2 x 5% each)	Essay 1: Sept. 26, 10 p.m. Essay 2: Nov. 3, 10 p.m
Presentation	15%	Spread throughout the term
Midterm 1	15 %	Friday, September 30
Midterm 2	15%	Tuesday, November 15
Final Paper	30%	Friday , November 25
Research Bonus	+2%	

### ***Participation (15 %)***

The participation grade mainly reflects the level of participation in class discussions.

### ***Homework Assignments (5% each x 2 = 10%)***

The homework assignment questions are aimed to better prepare the students for the midterm exams. If a student cannot attend class on the day of the exam for an excusable reason (e.g., due to a sporting event), the student must inform the instructor beforehand via email to document the discourse. Make-up examinations will be scheduled as soon as possible following the missed exam date.

### ***Presentation/Discussion Facilitation (15 %)***

On the second session, students will be randomly assigned into pairs for a date and topic. On their assigned date, the students will use the 45-minutes class period to complete the following three goals: (a) each student introduces one psychological measure/battery, (b) the students then would relate that psychological measure/ battery to the topic of the presentation, (c) at the end students will motivate discussion on the materials covered in the presentation

The grading will be based on (a) presentation style (5 points; appropriate allocation of time, quality of slides, etc.), (b) content of presentation (5 points; knowledge of topic area and psychological measure/ battery). (c) Quality of the discussion (5 points; ability to encourage and moderate the class discussion)

### ***Exams (15% each x 2 = 30%)***

There will be 2 midterm exams mostly based on lectures in conjunction with readings from the textbook.

### ***Paper (30 %)***

The paper consists of a review of the tests and measures that pertain to your psychological construct of interest. It must cover the following areas: (1) a brief history of the research on your construct of interest, how past researchers have conceptually defined it, and how you will define it, (2) a review of different measurement strategies (not exhaustive, just a select few) attempting to evaluate your construct, (3) a critical evaluation of psychometric attributes of the measurements that evaluate your construct, (4) and a discussion on how to improve these attributes in the future. Papers should be submitted by 10 p.m. on the due date.

For each day that the paper submission is late, 10% of your grade on the assignment will be deducted.

**Bonus: Research Participation (+2%)***Research Participation*

Students in this course may earn up to 2% extra credit toward their final grade by participating in research studies conducted in the Department of Psychology. Each 15 minutes of participation will earn 0.5 credits and up to 4 credits may be counted toward this course, with 2 credits required for a 1% increase in the student's final grade. Thus, two hours of participation would earn the full 2% extra credit.

For details on participating in research studies, go to the Department of Psychology web site (<http://web.uvic.ca/psyc>), click on the **Research** link near the top of the page, then click on the **Participant Pool** link at the left of the new page to see instructions for participating in the system.

**Grading Criteria**

The final letter grade in this course will be based on the percent score, rounded up or down to the nearest whole percentage point, and based on this distribution:

A+	A	A-	B+	B	B-	C+	C	D	F
90-100	85-89	80-84	77-79	73-76	70-72	65-69	60-64	50-59	0-49

**ACCOMMODATIONS**

**Late assignments.** For each day (24 hours) that the assignment is late, 10% of your grade on the assignment will be deducted. Assignments will not be accepted after 3 full days past the deadline and a grade of zero will be assigned. Exceptions will only be made under exceptional circumstances (e.g., serious illness or accident), and when appropriate documentation is presented within 5 days of the due date.

**Missed examinations.** Students who miss a midterm exam will receive a mark of zero unless they have a case of documented illness or family emergency, or under exceptional circumstances, which I will consider on a case-by-case basis. If you miss a midterm or the final exam you must supply me with written documentation justifying your absence (e.g., a doctor's note) as soon as possible. If your documented justification for missing a midterm exam is approved, you will be permitted to write a make-up exam during a time scheduled by the Department.

**TENTATIVE SCHEDULE**

<b>Dates</b>	<b>Topic</b>	<b>Readings</b>	<b>Notes</b>
Sep 9	Introduction	Ch. 1,3	+ reviewing the materials from Psyc 300A and B related to correlation
Sep 13	Discussion on Scaling, Interdependency and correlation	Ch. 5	+ readings on rank correlation
Sep 16	Reliability, conceptual basis	Ch. 6	
Sep 20	Reliability, empirical estimate	Ch. 6	<b>Sep 20:</b> drop deadline for 100% fee reduction
Sep 23	Reliability , empirical estimate	Ch. 6	<b>Sep 23:</b> last day to add course
Sep 27	The importance of reliability P1 and P2	Ch. 7	<b>Sep 26: Assignment 1 due</b>
<b>F Sep 30</b>	<b>EXAM 1 – Ch. 1, 3, 5, 6, 7+ lectures</b>		
Oct 4	Test Dimensionality P3 and P4	Ch. 4	
Oct 7	Factor Analysis	Ch. 4	
Oct 11	Factor analysis cont'd	Ch. 4	
Oct 14	Confirmatory factor analysis	Ch.12	
Oct 18	Confirmatory factor analysis P5, P6	Ch. 12	
Oct 21	P7, P8		
Oct 25	Validity: Conceptual Basis and Empirical Evaluation	Ch. 8	<b>Oct 31:</b> last day to drop course without academic penalty
Oct 28	P9, P10		
Nov 1	Estimating and evaluating convergent and discriminant validity evidence P11, P12	Ch. 9	
Nov 4	P13, P14		<b>Nov 3: Assignment 2 due</b>
Nov 8	Estimating and evaluating convergent and discriminant validity evidence P15, P16	Ch. 9	
Nov 11	<b>HAPPY READING BREAK; NO CLASS</b>		
<b>T Nov 15</b>	<b>EXAM 2 – Ch. 4, 8, 9, 10,12 + lectures</b>		
Nov 18	P17, P18		
Nov 22	Threats to psychometric quality	Ch. 10	
Nov 25	Threats to psychometric quality, wrap up	Ch. 10	
Nov 29	P19, P20,P21, P22,23		
Dec 2	P24,P25		

**N.B.** I reserve the right to make changes to this course outline at any time, though I will make every effort not to inconvenience anyone by doing so

**UNIVERSITY OF VICTORIA | Department of Psychology**  
**Important Course Policy Information**  
**Winter 2016-2017**

**Prerequisites**

Students who remain in courses for which they do not have the prerequisites do so at their own risk. Students who complete courses without prerequisites ARE NOT exempt from having to complete the prerequisite course(s) if such courses are required for the degree program.

**Program Requirements**

For more information see pages 383-386 of the UVic Calendar 2016-17.

**Registration Status**

Students are responsible for verifying their registration status. Registration status may be verified using My Page, View Schedule. Course adds and drops will not be processed after the deadlines set out in the current UVic Calendar.

**Commitment to Inclusivity and Diversity**

The University of Victoria is committed to promoting, providing and protecting a positive and supportive and safe learning and working environment for all its members.

**In the Event of Illness, Accident or Family Affliction** (See UVic Calendar, 2016-17, p. 59-60)**What to do if you miss an exam other than one scheduled during the formal examination period**

Do not apply at Records Services for a "Request for Academic Concession". Instead submit documentation of the illness, accident or family affliction directly to your course instructor (or designated teaching assistant).

**What to do if you require additional time to complete course requirements**

Apply at Records Services for a "Request for Academic Concession", normally within 10 working days of the end of the formal examination period. Records Services will forward the form to the instructor. If the concession is granted the instructor will determine how to deal with the situation. Where a concession is not applied for or where such application is denied, an N grade will be entered on the student's academic record.

OR, you can download the Request for Academic Concession form here:

<http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf>

**Policy on Academic Integrity including Plagiarism and Cheating**

The Department of Psychology fully endorses and intends to enforce rigorously the Senate Policy on Academic integrity(<http://web.uvic.ca/calendar2016-09/undergrad/info/regulations/academic-integrity.html>), p. 55-58, UVic Calendar 2016-17). It is of utmost importance that students who do their work honestly be protected from those who do not. Because this policy is in place to ensure that students carry out and benefit from the learning activities assigned in each course, it is expected that students will cooperate in its implementation.

The offences defined by the policy can be summarized briefly as follows:

1. **Plagiarism.** You must make sure that the work you submit is your work and not someone else's. There are proper procedures for citing the works of others. The student is responsible for being aware of and using these procedures.
2. **Multiple Submission.** Only under exceptional circumstances may a work submitted to fulfill an academic requirement be used to satisfy another similar requirement. The student is responsible for clarifying this with the instructor(s) involved.
3. **Falsifying Materials Subject to Academic Evaluation.** This includes falsification of data, use of commercially prepared essays, using information from the Internet without proper citation, citing sources from which material is not actually obtained, etc.
4. **Cheating on Assignments, Tests, and Examinations.** You may not copy the work of others in or out of class; you may not give your work to others for the purpose of copying; you may not use unauthorized material or equipment during examinations or tests; and you may not impersonate or allow yourself to be impersonated by another at an examination. The Department of Psychology has a policy of not making old examinations available for study purposes. Therefore, use of old exams without the express written permission of the instructor constitutes cheating by the user, and abetting of cheating by the person who provided the exam.
5. **Being an Accessory to Offences.** This means that helping another student to cheat (for instance, by showing or communicating to them answers to an assignment, or by allowing them to view answers on an exam) is an academic offence.

Instructors are expected to make every effort to prevent cheating and plagiarism. This may include the assignment of seating for examinations, asking students to move during examinations, requests to see student identification cards, and other measures as appropriate. Instructors also have available to them a variety of tools and procedures to check for Internet and electronic media-based cheating. In instances of suspected or actual plagiarism or cheating, instructors, following prescribed procedures, are authorized to take steps consistent with the degree of the offence. These measures will range from a zero on the test or assignment or a failing grade for the course, probation within a program to temporary or even permanent suspension from the University.

Rights of Appeal are described in the Policy on Academic Integrity in the University calendar (on p. 55-58 in 2016-17).

**The definitive source** for information on Academic Integrity is the University Calendar (p. 55-58 in 2016- 17) (<http://web.uvic.ca/calendar2016-09/undergrad/info/regulations/academic-integrity.html>)

**Other useful resources on Plagiarism and Cheating include:**

1. The Learning Skills program: <http://www.coun.uvic.ca/learning/index.html>
2. The Ombudsperson's office: <http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf>