Course Description

**Approach:** This course provides an opportunity to learn and apply basic concepts and methods of psychological measurement. Lecture examples, demonstration material, and discussion topics often will concern clinical applications relevant to either practice or research. Clinical background is not required, and the concepts and methods presented in the course are relevant to all areas of Psychology. Mathematical/statistical content will be kept to the minimum required for understanding the concepts and for practical application of techniques.

**Objectives:** Students at the completion of the course should be able to: Understand and employ the basic methods of classical and item response test theories, evaluate existing tests in terms of the psychometric suitability for specific applications, interpret test scores according to psychometric norms and other statistics, recognize inappropriate applications and interpretations of test scores, understand the important principles of test design, and be able to articulate the process for designing a new measure of a psychological construct.

**Topics:** Topics to be addressed will include: historical background, sample descriptive statistics (parametric and non-parametric indices of central tendency), norms (percentiles, z-scores, T-scores), sensitivity/specificity, likelihood ratios, classical (true score) test theory (CTT), item response theory (IRT), reliability (nature, types, methods of calculating, implications), types of validity, standard error, norm vs. criterion reference, test development, standards for clinical tests, and evaluation of statistical significance of pairs of scores (abnormality of discrepancy, reliable change).

**Readings:**


Additional readings will be assigned from a variety of original sources.

**Prerequisites**

Enrollment is restricted to MSc and PhD-level students in the Department of Psychology at the University of Victoria. Students who remain in courses for which they do not have the prerequisites do so at their own risk. Those who complete courses without prerequisites are not exempt from having to complete the prerequisite course(s) at some later date if such courses are required for the degree program. Students are responsible for checking their registration status by the add/drop deadline.

**Evaluation and Grading Policy**

Students will be graded on performance on 2 tests, 2 presentations, and class participation.

**Test (25% each):** Knowledge of the readings and lecture material will be assessed through two tests that will involve multiple choice and short answer essay questions*.
**Presentation 1 (25%)**: Students will select a topic from the schedule for in-depth study and report on their understanding of this topic by *co-leading the class* for this topic. As part of co-leading the class, students will be expected to prepare an in-class demonstration or exercise that is relevant for their topic. Students will be expected to provide one reading for the class at least 7 days prior their presentation date.

**Presentation 2 (15%)**: Students will select a psychological test for in-depth study. Students will prepare a presentation that covers the development, standardization, and psychometric properties of the test.

**Class participation (10%)**: Discussions in class are an important part of the learning process for this course.

* Students who miss the midterm test due to illness, accident or family affliction must apply at Records Services for a “Request for Academic Concession” normally within 10 working days of the test and a make-up test will be scheduled (UVic Graduate Calendar, p. 24).

** Hard copies (paper) of each paper must be received by the instructor by 7:20 pm on the due date. Paper grades will be reduced by 2% for each day the paper is late.

Students who do not complete all assignments will receive an “N”.

Details about the presentations will be given in class.

The final letter grade in the course will be based on total percent score rounded to third decimal point as shown:

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

Students who do not take the final exam or complete the research paper will receive an “N”.

Students are expected to familiarize themselves with the Important Course Policy Information (attached).

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**Tentative Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Activity</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 27</td>
<td>Validity Fairness in Psych Testing</td>
<td>Ch. 1 &amp; 3 of <em>Standards for Educational and Psychological Testing</em>.</td>
</tr>
<tr>
<td>Date</td>
<td>Test</td>
<td>Topic</td>
</tr>
<tr>
<td>--------</td>
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<td>-------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Oct. 4 | Test 1  | Item Response Theory  
Rasch Analysis*  
| Oct. 11|        | Generalizability Theory  
Exploratory Factor Analysis*  
| Oct. 25|        | Test Design and Evaluation  
Differential Item Functioning*  
| Nov. 1 |        | Measuring Change  
Reliable Change Scores*  
http://doi.org/10.1093/arclin/acr120.       |
| Nov. 8 |        | Test Interpretation  
Sensitivity/specificity and predictive values*  
Likelihood ratios, pre-and post-test probability* | Ch. 6 of *Standards for Educational and Psychological Testing.*                                                                                                                                      |
| Nov. 15| Test 2  |                                                                                           |                                                                                                                                                                                                          |
| Nov. 22|        | Oral Presentations: Test reviews                                                         |                                                                                                                                                                                                          |
| Nov. 29|        | Oral Presentations: Test reviews                                                         |                                                                                                                                                                                                          |
UNIVERSITY OF VICTORIA
Department of Psychology

Important Course Policy Information
Winter 2018/19

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.

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 [https://web.uvic.ca/calendar2018-09/grad/academic-regulations/academic-integrity.html#](https://web.uvic.ca/calendar2018-09/grad/academic-regulations/academic-integrity.html#), p.39-41 UVic Calendar September 2018). 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. **Unauthorized Use of an Editor.** The use of an editor is prohibited unless the instructor grants explicit written authorization.

3. **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.

4. **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.

5. **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.

6. **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. 40 in September 2018).

The definitive source for information on Academic Integrity is the University Calendar (p. 39-41 in September 2018) (https://web.uvic.ca/calendar2018-09/grad/academic-regulations/academic-integrity.html#)

Other useful resources on Plagiarism and Cheating include:

1. The Study Solutions Office: https://www.uvic.ca/services/counselling/success/study/index.php
2. The Ombudsperson’s office: http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf
3. UVic Library Resources: http://www.uvic.ca/library/research/citation/plagiarism/
A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

**Discovering Victoria, UVic and your Community:**
Grad school can involve a lot of time studying and researching on your own – but it does not have to be an isolating experience. There are a lot of other grad students out there like you who are looking to connect outside of academics.
[www.uvic.ca/mentalhealth/graduate/connect/index.php](http://www.uvic.ca/mentalhealth/graduate/connect/index.php)

**Counselling Services:**
Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. [www.uvic.ca/services/counselling/](http://www.uvic.ca/services/counselling/)

**Health Services:**
University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.
[www.uvic.ca/services/health/](http://www.uvic.ca/services/health/)

**Centre for Accessible Learning:**
The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations [www.uvic.ca/services/cal/](http://www.uvic.ca/services/cal/). The sooner you let us know your needs, the quicker we can assist you in achieving your learning goals in this course.

**Elders’ Voices:**
The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.
[www.uvic.ca/services/indigenous/students/programming/elders/](http://www.uvic.ca/services/indigenous/students/programming/elders/)

**Mental Health Supports and Services:**
Mental health supports and services are available to students from all areas of the UVic community: [www.uvic.ca/mentalhealth/graduate/](http://www.uvic.ca/mentalhealth/graduate/)