Psychology 217 (Section 003)
Thinking Clearly about Psychology
Term 1 04W

## Instructor:

Professor F. P. Valle (fvalle @psych.ubc.ca) 3408 Kenny Bidg. 822-2718 Office Hours: Thursdays: 2:00-4:00

## **Teaching Assistant:**

Name: Office: Office Hours: e-mail:

### Texts:

William J. Ray. Methods toward a Science of Behavior and Experience (7th Edition) Wadsworth. 2002.

Keith Stanovich. How to Think Straight about Psychology (7th Edition) Allyn and Bacon. 2004.

Lecture Guides 1-3 (available from Instructor).

### Course Objectives.

This course has three major goals. The first goal is to provide students with an understanding of the methods psychologists use to separate "cause from coincidence," when seeking explanations of behavioural events. The second goal is to provide students with an understanding of the nature of theories and theory testing in scientific psychology. The third goal is to provide students with an understanding of why many people find certain types of pseudoscientific claims about behaviour intuitively appealing and certain types of valid psychological principles intuitively implausible; it is hoped that this information will help students develop the critical thinking skills needed to evaluate common psychological claims in the media and self-help literature.

## Evaluation.

Midterm Exams. There will be two 1-h, multiple-choice, midterm exams. The first will cover Topics 1-5 and the second will cover Topics 6-9. Each of these exams will determine 25% of your mark.

Final Exam The 2.5 h final exam will cover all topics and will determine 50% of your grade. It will have both multiple-choice questions and essay questions.

The marks for the essay questions will be based upon (i) organization and clarity of expression, (ii) grammar and spelling, (iii) factual accuracy and completeness, and (iv) aptness of analytical reasoning.

The grades in the course will be scaled to conform to departmental grading guidelines, which means that your grade could differ from your weighted exam average by several percentage points. The Psychology Department uses the following guidelines for grades in first- and second-year courses.

Overall Class Performance Mean SD %As %Fs

Good 67% 14% 18% 11% Average 65% 14% 14% 14% Weak 63% 14% 11% 18%

### Official Marks

Faculties, departments and schools reserve the right to scale grades in order to maintain equity among sections and conformity to university, faculty, department or school norms. Students should therefore note that an unofficial grade given by an instructor might be changed by the faculty, department or school. Grades are not official until they appear on a student's academic record. (See p. 43 in the 2004 Calendar.)

## Missed Exams.

If you miss the midterm exam, you will be assigned a score of zero, unless you have a note from a physician indicating you were ill on the day of the exam. If travel to a University-related activity conflicts with the exam, please bring a note from the Faculty sponsor, prior to the exam.

Please note: the final exam must be written on the date chosen by the Registrar. Do not make travel plans, until the examination schedule has been posted. Only those students who have an official Standing Deferred from the Dean of their Faculty will be permitted to write a makeup final exam.

## Exam Rules.

Students who engage in any of the following, or similar, dishonest practices will be dismissed immediately from the examination, will receive a mark of 0 on the exam, and will be subject to disciplinary action by the President's Advisory Committee on student discipline.

Having at the place of writing, any books, papers or memoranda, calculators, audio or visual cassette players or other memory devices, other than those authorized by the instructor.

Speaking or communicating with other students.

Purposely exposing written papers to the view of other students. The plea of accident or forgetfulness will not be received.

## Extra Course Credits.

In this section, If you wish, you may add up to 2 percentage points to your course grade by participating in the Psychology Subject Pool. Details of this option will be provided during class lecture.

#### Attendance at Lectures.

It is expected that students will attend all lectures, unless ill, or absent because of a University-sponsored activity. If you miss a class for any reason other than the above two, it is your responsibility to get class notes for the material covered from another student in the class. Neither the instructor nor the TA will provide makeup material for nonexcused absences. If you miss a class because of illness or a University-sponsored trip, you may review the class overheads during the TA's office hours, to fill in missing material in the Lecture Guides, as long as you bring a doctor's note or a note from the University sponsor to the TA.

### Classroom Decorum

Talking during lectures both disrupts the instructor and distracts fellow students. It is expected that students will refrain from such discourteous behaviour.

## Course Outline and Reading Assignments

Sept. 8-20. Topic 1. Nonscientific explanations of behaviour; an overview of the goals and methods of science; a brief history of the scientific method; the fundamental assumptions and canons of the scientific method.

Assignments.

Ray: Chapters 1 and 2.

Stanovich: Chapters 1, 2, 3, and 5.

Sept. 22. Topic 2. Measuring and describing behaviour.

Assignment.

Ray: pp. 82-100 (i.e., up to "Measures of Association").

Sept. 24-27 Topic 3. Measures of Association.

Assignment.

Ray: pp. 100-106.

Sept. 29. Topic 4. Reliability and validity.

Assignment.

Ray: pp. 52-59.

Oct. 1. Topic 5. Designing a good experiment: A simple between-subjects design.

Assignments.

Ray: pp. 147-155 (i.e., up to "Control Achieved...").

Stanovich: Chapters 6 and 7.

# OCTOBER 13. MIDTERM EXAM: TOPICS 1-5.

Oct. 4-18. Topic 6. The logic of making inferences about populations from samples. Minimizing inferential errors.

Assignment.

Ray, Chapter 5 and pp. 131-138 (i.e., up to "Threats to Internal Validity").

Oct. 20. Topic 7. The challenges of probabilistic reasoning.

Assignment.

\_Stanovich: Chapter 10 and pp. 153-164 (i.e., up to "Accepting Error...").

Oct. 22-24. Topic 8. Multilevel, single-factor designs and functional relationships. Factorial designs and interactions.

Assignments.

Ray: Chapter 8.

Stanovich: Chapter 9.

Oct. 27-Nov.1. Topic 9. Within- and matched-subjects designs.

Assignment.

Ray: Pp. 138-142 and Chapter 9; also, review pp. 187-188.

## **NOVEMBER 15. MIDTERM EXAM: TOPICS 6-9**

Nov. 3-8. Topic 10. Controlling for participant expectancies and experimenter bias; ethical issues in behavioural research.

Assignments.

Ray: Chapters 10 and 14. Stanovich: Chapter 4.

Nov. 10. Topic 11. Single-subject research designs.

Assignment.

Ray: Chapter 12.

Nov. 12. Topic 12. Quasi-experimental designs.

Assignment.

Ray: pp. 233-251 (i.e., up to "Correlational Procedures").

Nov 17. Topic 13. Age as a variable: Research designs in developmental psychology.

Nov. 19. Topic 14. Naturalistic observations and the comparative method.

Assignment.

Ray: pp. 253-258.

Nov. 22-26. Topic 15. Partial correlations; correlation and prediction; actuarial vs clinical predictions.

<u>Assignments.</u>

Ray: pp. 251-253.

Stanovich: Pp. 164-173 and Chapter 8.

Nov. 29. Topic 16. Survey research.

Assignment.

Ray: Chapter 13.

Dec. 1-3. Topic 17. Tracking down references; how to write a research paper; challenges that face psychology as a scientific discipline.

Assignment.

Ray: Chapter 15 and pp. 70-77.

Stanovich: Chapter 12