

# **PSYC\*3370, Course Outline: Fall 2016**

## **General Information**

**Course Title:** Experimental Design and Analysis

**Course Description:**

This course is intended for students planning to complete PSYC\*4870 and PSYC\*4880 in preparation for graduate studies in Psychology. Emphasis is placed on (1) the model comparison approach to analysis of variance, and (2) effective scientific communication.

Issues related to choice of design, power, multiple-comparisons and categorical data analysis will be reviewed. Laboratory exercises will include SPSS applications and research projects.

**Credit Weight: 0.50**

**Academic Department (or campus): PSYCHOLOGY**

**Semester Offering: F16**

**Class Schedule and Location:**

Lectures: Tuesdays and Thursdays, 14:30 - 15:50 MCKN Room 120.

**Note: There will be no class Tuesday October 11.**

There is a make-up date scheduled on Thursday, December 1.

## **Instructor Information**

Instructor Name: Harvey H. C. Marmurek

Instructor Email: [hmarmure@uoguelph.ca](mailto:hmarmure@uoguelph.ca)

Office location and office hours: 4019 MacKinnon Extension

Tuesdays: 13:00- 14:00

Thursdays: 13:00-14:00

## **GTA Information**

Brooke Charbonneau	<a href="mailto:charbon@uoguelph.ca">charbon@uoguelph.ca</a>
Stephen Daniels	<a href="mailto:daniels@uoguelph.ca">daniels@uoguelph.ca</a>
Sara Kafashan	<a href="mailto:skafasha@uoguelph.ca">skafasha@uoguelph.ca</a>
Ekaterina Pogrebtsova	<a href="mailto:epogrebt@uoguelph.ca">epogrebt@uoguelph.ca</a>
Theresa Martin	<a href="mailto:tmarti05@uoguelph.ca">tmarti05@uoguelph.ca</a>

## **Course Content**

### **Specific Learning Outcomes:**

*Major Learning Outcomes:*

1. Critical thinking
2. Problem solving
3. Quantitative literacy
4. Written and oral communication
5. Ethical reasoning
6. Teamwork

### **Lecture Content:**

PSYC\*3370 concentrates on the experimental method. Lectures will address issues related to the selection of an experimental design and the statistical methods appropriate for several designs (e.g., between-groups factorial designs; analysis of covariance; within-subjects factorial designs; mixed factorial designs).

Lecture notes will be available via the CourseLink.

### **Labs:**

The purpose of the labs is to review SPSS analyses that will be used for research reports. The data sets presented in the course lectures will be used for SPSS instruction that will take place in **028 Mackinnon**.

Sections are assigned by the Registrar.

There will be no formal assessment of the SPSS procedures.

**LABS BEGIN THE WEEK OF SEPTEMBER 19.**

**There are no labs the week of October 10 (Thanksgiving Day)**

## Course Assignments and Tests:

### Midterm Examination: Thursday October 27 (30 points)

This in-class examination will require you to calculate statistics and evaluate hypotheses. Data sets similar to those presented in the lecture discussions will appear on the midterm. Use of a calculator is permitted.

Missed examinations will be assigned a grade of 0 unless documentation is provided to support medical, psychological, or compassionate grounds for academic consideration.

### Research Projects (70 points):

Students will complete two research projects. Research reports for the projects must adhere to the recommendations in the Publication Manual of the American Psychological Association, 6<sup>th</sup> Ed.

(1) **Project 1 (25 points)**. All students will write an independent research report based on a data set common to all students.

Report 1 is due IN CLASS Thursday, October 13.

(2) **Project 2 (45 points)**. Students will form lab groups of 4-6 students. Each group will design and conduct an independent experiment. Groups may explore any topic amenable to an experimental design recognizing the constraints imposed by a semester-end deadline.

Group membership must be identified in an email to the instructor no later than Thursday, October 6. Individuals not in a group and groups of fewer than 4 people will be merged randomly with other groups. Final groups will be identified in class on Thursday October 13. Groups may use the Thursday October 13 class time to meet to discuss potential projects.

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Project 1 report	October 13	25	All
Midterm	October 27	30	1,2,3, 4
Project 2 presentation	TBA by group	15	all
Project 2 report	December 5	30	all

## **Additional Notes:**

### **Project 2 Deadlines:**

**Thursday, October 20.** A completed ethics protocol is due as an email attachment. A link to the ethics protocol can be found on CourseLink. Individuals must complete the TCPS2 Tutorial (see link on Courselink) prior to data collection.

**Do not begin data collection until you have received ethics approval from the instructor.**

Each group will present a 15-minute summary of their project (15 points). The schedule of the presentations will be posted on October 20. Presentations will be scheduled during the final two weeks of the semester.

**12:00 noon Monday, December 5.** An *individual* hard copy of your research report must be submitted to the instructor in 4019 MacKinnon Extension.

**Please retain a date-stamped e-copy for your records.**

Late reports will not be accepted unless documentation is provided to support medical, psychological, or compassionate grounds for academic consideration.

**Final examination date and time: No final examination.**

## **Course Resources**

**Required Texts: None**

**Recommended Texts:**

Any recent publication on the use of SPSS. For example:

Schwartz, B. M., Wilson, J. H., & Goff, D. M. (2015). *An easy guide to research design & SPSS*. Thousand Oaks, CA: Sage.

American Psychological Association (APA). (2010). *Publication manual of the American Psychological Association (6<sup>th</sup> Edition)*. Washington, DC: Author. A copy is available on reserve in the Library.

Software: We will be using SPSS. The computers in the lab have the required software. You can obtain a free institutional use copy through the CCS website of the University of Guelph.

## **Course Policies**

### **Grading Policies**

Students must submit documentation to support medical, psychological, or compassionate consideration for failing to complete an examination or submit assignments on posted dates. Otherwise, a grade of 0 will be assigned.

In cases where academic consideration is granted, then deferred dates will be arranged in consultation with individual students so as to accommodate their specific circumstance.

### **[Undergraduate Grading Procedures](#)**

#### **Course Policy on Group Work:**

Groups of students will design their study, collect data, and prepare the group presentation collaboratively. Students who do not contribute to the group project will lose marks if their failure to participate is documented in writing by all other members of the group.

Research reports, however, must reflect individual effort. That is, each student must submit an independent report. If one or more written assignments are found to share a significant proportion of phrasing and/or similarity of tables, graphics, etc., ACADEMIC MISCONDUCT procedures will be invoked (see below).

#### **Course Policy regarding use of electronic devices and recording of lectures:**

***Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.***

## **University Policies**

### **Academic Consideration**

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures.

Academic Consideration:

**[Academic Consideration, Appeals and Petitions](#)**

## **Academic Misconduct**

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

[Academic Misconduct Policy](#)

## **Accessibility**

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services (formerly Centre for Students with Disabilities) as soon as possible.

For more information, see the website:

[Student Accessibility Services Website](#)

## **Course Evaluation Information**

Please refer to the [Course and Instructor Evaluation Website](#) .

## **Drop date**

The last date to drop one-semester courses, without academic penalty, is:

**Friday November 4, 2016.**

For regulations and procedures for Dropping Courses, see the Academic Calendar:

[Current Undergraduate Calendar](#)