# PSYC09 - Applied Multiple Regression in Psychology

#### Winter 2019

Instructor: Dr. Douglas A. Bors

**Office Hours:** Wednesdays 11:00 to 12:30, Thursdays 11:00 to 11:45, and by appointment.

Textbook: Data Analysis for the Social Sciences by Douglas Bors

Logistic Regression: A Primer by Fred Pampel

**Grading:** Your final grade in the course will be based on assignments (20%), a mid-term examination (30%), and a final examination (50%). There will be at least five assignments during the term. Your best four performances will be used for the assignment portion of your grade. The date for the mid-term will be posted and announced early in the term. The date for the final examination will be published by the registrar's office sometime during the term.

**Make-Ups:** Make-up assignments and mid-term examinations (due to the nature of the examination) are not given. If the mid-term examination is missed for legitimate reasons, a grade will be assigned on the basis of the student's relative performance on the other assessments. Make-ups for final examinations are entirely at the discretion of the registrar's office.

## Missed Term Work due to Medical Illness or Other Emergency:

All students citing a documented reason for missed term work must submit their request for accommodations within three (3) business days of the deadline for the missed work.

Students must submit **BOTH** of the following:

- A completed Request for Missed Term Work Accommodations form (<a href="http://uoft.me/PSY-MTW">http://uoft.me/PSY-MTW</a>), and
- (2.) Appropriate documentation to verify your illness or emergency, as described below.

### Appropriate documentation:

For missed **TERM TESTS** due to **ILLNESS**:

Submit the Request for Missed Term Work Accommodations form (<a href="http://uoft.me/PSY-MTW">http://uoft.me/PSY-MTW</a>), along with an <a href="https://original.org/original">original</a> copy of the official UTSC Verification of Illness Form (<a href="https://uoft.me/UTSC-Verification-Of-Illness-Form">uoft.me/UTSC-Verification-Of-Illness-Form</a>) or an <a href="https://original.org/origin

anticipated end date, and severity of illness. The physician's registration number and business stamp are required.

# For missed **ASSIGNMENTS** due to **ILLNESS**:

Submit the Request for Missed Term Work Accommodations form (<a href="http://uoft.me/PSY-MTW">http://uoft.me/PSY-MTW</a>), along with a <a href="https://uoft.me/PSY-self-declare-form">hardcopy</a> of the Self-Declaration of Student Illness Form (<a href="https://uoft.me/PSY-self-declare-form">uoft.me/PSY-self-declare-form</a>).

For missed term tests or assignments in **OTHER CIRCUMSTANCES**:

Submit the Request for Missed Term Work Accommodations form (<a href="http://uoft.me/PSY-MTW">http://uoft.me/PSY-MTW</a>), along with:

- In the case of a **death of a family member or friend**, please provide a copy of a death certificate.
- In the case of a disability-related concern, if your desired accommodation is within the scope of your Accommodation Letter, please attach a copy of your letter. If your desired accommodation is outside the scope of your Accommodation Letter (ex. if your letter says "extensions of up to 7 days" but you need more time than that) you will need to meet with your consultant at AccessAbility Services and have them email Keely Hicks (keely.hicks@utoronto.ca) detailing the accommodations required.
- For U of T Varsity **athletic commitments**, an email from your coach or varsity administrator should be sent directly to Keely Hicks (<a href="mailto:keely.hicks@utoronto.ca">keely.hicks@utoronto.ca</a>) **well in advance** of the missed work, detailing the dates and nature of the commitment.
- For religious accommodations, please email (<u>keely.hicks@utoronto.ca</u>) well in advance of the missed work.

Documents covering the following situations are NOT acceptable: medical prescriptions, personal travel, weddings/personal/work commitments.

### **Procedure:**

Submit your (1.) <u>request form</u> and (2.) <u>medical/self-declaration/other</u> documents in person <u>WITHIN 3 BUSINESS DAYS</u> of the missed term test or assignment.

<u>Submit to:</u> Keely Hicks, Room SW420B, Monday – Friday, 9 AM – 4 PM

Exceptions to the documentation deadline will only be made under exceptional circumstances. If you are unable to meet this deadline, you must email Keely Hicks (keely.hicks@utoronto.ca) within the three business day window to explain when you will be able to bring your documents in person. Attach scans of your documentation.

Within approximately one week, you will receive an email response from your instructor detailing the accommodations to be made (if any). You are responsible for checking your official U of T email and Quercus course announcements daily, as accommodations may be time-critical.

Completion of this form does NOT guarantee that accommodations will be made. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request for accommodation.

Instructors cannot accept term work after April 12, 2019. Beyond this date, you would need to file a petition with the Registrar's Office to have your term work accepted (https://www.utsc.utoronto.ca/registrar/term-work).

Note that this policy applies only to missed assignments and term tests. Missed final exams are handled by the Registrar's Office (http://www.utsc.utoronto.ca/registrar/missing-examination).

**Overview:** This course is designed to provide the student with the advanced principles of data analysis for both parametric and non-parametric analyses. In terms of parametric statistics, our treatment will focus on Analysis of Variance (ANOVA). In addition to the material covered in PSYB07, a working knowledge of elementary algebra is assumed.

### **Tentative Course Outline:**

| Week | Topic   | Chapters       |
|------|---|----------------|
| 1    | Preview and Descriptive Statistics and Graphs | 1 & 2          |
| 2    | Review of PSYB07 and PSYC08                   | 5, 6, 7, 9, 11 |
| 3    | Review of Simple regression                   | 7              |
| 4    | Introduction to Multiple Regression & SPSS    | 12             |
| 5    | Outliers and Missing data                     | 12             |
| 6    | Testing for linearity and homoscedasticity    | 12             |
| 7    | Working an example with SPSS                  | 12             |
| 8    | Addressing Multicollinearity                  | 12             |
| 9    | Interactions with regression                  | 12             |
| 10   | Introduction to Factor Analysis               | 13             |

| 11 | Introduction to Logistic Regression | Logistic<br>Regression: A<br>Primer |
|----|-------------------------------------|-------------------------------------|
| 12 | Logistic Regression continued       | Logistic<br>Regression: A<br>Primer |