

## PSYC08 - Advanced Data Analysis in Psychology

Winter 2019

Instructor: Dr. Douglas A. Bors

**Office Hours:** Wednesdays and Thursdays 11:00 to 4:30, after class, and by appointment.

**Textbook:** *Data Analysis for the Social Sciences* by Douglas Bors

**Grading:** Your final grade in the course will be based on assignments (20%), a mid-term examination (40%), and a final examination (40%). 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-terms 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 are not given. Make-up mid-terms are never given without a legitimate reason (see below). Make-up mid-terms will be given at 5:00 pm on the Tuesday of the week following the original date of the mid-term exam, unless that is Reading Week. On the date of the make-up, the location of the exam will be posted on the course web page and on Dr. Bors' office door. If the make-up is also missed for legitimate reasons, a grade will be assigned on the basis of the student's relative performance on the other assessments and the final exam. 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:

- (1.) A completed **Request for Missed Term Work Accommodations form** (<http://uoft.me/PSY-MTW>), 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 (<http://uoft.me/PSY-MTW>), along with an **original** copy of the official UTSC Verification of Illness Form ([uoft.me/UTSC-Verification-Of-Illness-Form](http://uoft.me/UTSC-Verification-Of-Illness-Form)) or an **original** copy of the record of visitation to a hospital

emergency room. Forms are to be completed in full, clearly indicating the start date, 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 (<http://uoft.me/PSY-MTW>), along with a **hardcopy** of the Self-Declaration of Student Illness Form ([uoft.me/PSY-self-declare-form](http://uoft.me/PSY-self-declare-form)).

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

Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), 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](mailto: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 ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work, detailing the dates and nature of the commitment.
- For **religious accommodations**, please email ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **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.) [request form](#) and (2.) [medical/self-declaration](#)/other documents in person **WITHIN 3 BUSINESS DAYS** of the missed term test or assignment.

**Submit to:** 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](mailto: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 forms of 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 tests and brief Introduction to ANOVA	4, 5, 6, and 7
3	Introduction to One-Way ANOVA between-subject designs	5, 8
4	One-Way ANOVA continued, third-variables (ANCOVA), nonparametric alternatives	5, 8
5	Introduction to Related-Subject Designs	5, 9
6	Related-Samples designs continued,	9
7	Related-Samples continued, nonparametric alternatives	9
8	Planned and Unplanned comparisons, per-comparison and family-wise error rates	10

9	Planned and Unplanned comparisons continued	10
10	Introduction to Factorial Designs, Between-Subject designs, Main effects versus Simple Effects	11
11	Factorial Designs, Fixed versus random factors, Within-Subject designs, Main effects versus Simple Effects	11
12	Mixed Designs and final Integration	11