Lectures:	11:30  12:50pm; Monday & Thursday
Location:	MacLaurin (MAC) D111
Instructor:	Jonathan Rush, PhD (he/him)
Office hours:	By appointment
Office:	Cornett B335d
E-mail:	<u>jrush@uvic.ca</u>
TA:	Bennett King-Nyberg
Email:	<u>bennettkingnyberg@uvic.ca</u>
Office Hours:	By appointment

This course is designed to introduce you to the concepts and practical application of contemporary approaches underlying the General Linear Model (GLM). Select techniques that are special cases of the GLM including both continuous and categorical predictors will be presented.

Foundational elements of the GLM as applied to univariate and bivariate data, including correlation and regression; multiple regression, analysis of variance and covariance; hypothesis testing through model comparisons; visualization and communication of statistical findings.

The prerequisites for PSYC 400A include:

- A minimum of 80% in both PSYC 300A and PSYC 300B
- Concurrent registration in PSYC 499

This advanced undergraduate course is designed to promote learning through lecture, practical application, dialogue, and sharing of ideas and issues. Our meeting time will integrate conceptual learning with practical application. Because a large emphasis will be on practical application,

<u>*Missed Exams:*</u> It is your responsibility to complete the exams as scheduled. **There will be no make-up exams**. If you miss an exam due to illness, accident, or family affliction, you must notify me (via email or telephone message) on or before the exam date. If your justification for missing an exam is accepted, then you will be assigned a score based on the class average for that exam and on how well you do, relative to the rest of the class, on the remaining exams. If you miss two or more exams you will receive an

## d) Final Project

Your final written assignment will be a **manuscript-length Methods** section based on your Honour's Thesis project. The Methods section should provide the level of detail typical of articles published in APA journals (e.g., *Psychology and Aging, Developmental Psychology, Journal of Personality and Social Psychology*) and should be formatted using APA style (i.e., subsection heading levels, figures, citations).

Please ensure you include <u>Methods subsections</u> describing: (a) participants and procedure (i.e., research design); (b) measures; and (c) analytic strategy (where you detail the analytic approach used and depict the model(s) through a figure or equations). In addition to the Methods section, please also include a *brief introduction* (approximate

# **Course Completion Requirement**

Students who have completed the following elements will be considered to have completed the course:

- Complete at least two Take-home Exams
- Complete the Final Project

Failure to complete one or more of these elements will result in a grade of "N" regardless of the cumulative percentage of all other elements in the course. N is a failing grade and factors into GPA as a value of 0.

In accordance with the <u>University's policy on academic concessions</u>, "A student who completes all course requirements is not eligible for an academic concession". Consequently, students can only request deferrals for the completion of required course components and not for non-essential course components.

# Course Registration

It is your responsibility to check your registration status by the drop deadline to ensure that you are registered in the course.

- <u>September 17<sup>th</sup></u> is the last day for 100% fee reduction
- September 20<sup>th</sup> is the last day to add courses

This is a *tentative* guide only and will likely change pending progress throughout the term. Topics covered in class may not correspond exactly with this outline. You will be responsible for all material covered in class. My objective will be for you to learn the fundamentals of the GLM, with any remaining time devoted to special topics that are extensions of the GLM (e.g., mediation analyses; logistic regression; multilevel modeling).

Week	Date	Class Topic	Assignments/Readings
0	Thur Sep 5	Introductions and Course Overview	
	Mon Sep 9	Data = Model + Error	Judd & McClelland (2008)
1	Thur Sep 12	<ul><li>What is a <i>Model?</i></li><li>A modeling approach to statistics</li></ul>	Rodgers (2010)
2	Mon Sep 16	GLM: as t-tests, correlations, and regression	
2	Thur Sep 19	Building Statistical Models	
3	Mon Sep 23	Inferential statistics as model comparisons	Assignment 1
3	Thur Sep 26	GLM: as multiple regression	
4	Mon Sep 30	National Day for Truth & Reconciliation (No Class)	
4	Thur Oct 3	GLM: as multiple regression	Judd & McClelland (Ch 6)
5	Mon Oct 7	GLM: as multiple regression	Assignment 2
5	Thur Oct 10	GLM: as ANOVAs and ANCOVAs	
6	Mon Oct 14	Thanksgiving (No Class)	
6	Thur Oct 17	GLM: as ANOVAs and ANCOVAs	
7	Mon Oct 21	Moderation (interactions)	Assignment 3
/	Thur Oct 24	Moderation (interactions)	Take-H0 G[-)]TETQ4116 309

### UNIVERSITY OF VICTORIA

Department of Psychology Important Course Policy Information Fall Session 2024

#### Accessible Learning

The University of Victoria is committed to creating a learning experience that is as accessible as possible. If you are registered with the <u>Centre for Accessible Learning</u> and anticipate or experience any barriers to learning in this

#### Commitment to Inclusivity, Diversity

It for all its members. All members of the university community have the right to this experience and ibility to help*create* such an environment. The University will not tolerate racism, sexualized violence, of discrimination, bullying, or harassment.

dvised that, by logging into UVic's learning systems or interacting with online resources and coursemunication platforms, you are engaging in a University activity.

ons within this environment are subject to the university expectations and policies. Any concerns about duct may be reviewed and responded to in accordance with the appropriate university policy.

## Policy on Academic Integrity including Plagiarism and Cheating

The Department of Psychology fully endorses and intends to enforce rigorously the <u>Senate Policy on Academic</u> Integrity. It is of utmost importance that students who do their work honestly be protected from those who do

### Prerequisites

Students who remain in courses for which they do not have the prerequisites do so at their own risk. Students who complete courses without prerequisites <u>ARE NOT</u> exempt from having to complete the prerequisite course(s) if such courses are required for the degree program.

### **Program Requirements**

For more information see the UVic Calendar.

#### **Registration Status**

Students are responsible for verifying their registration status. Registration status may be verified using My Page, View Schedule. Course adds and drops will not be processed after the <u>deadlines</u> set out in the current UVic Calendar.

Students who do not attend classes must not assume that they have been dropped from a course by an academic unit or an instructor. Courses that are not formally dropped will be given a failing grade, students may be required to withd (i)5 (I)5.1 (/ (ng)6.1 (t)2.6 (e)9 (t)2.6 (hd (a (I)5.1 ( no)1.9 (t)2.V 9 (e)9 tT2B(t)2.73tm5L1 (i)dT06 (s)-1(i)5.1 (t)2.6 Tc 0 T6 (a)

#### This classroom is a trans-inclusive space

Please indicate if you have a preferred name and pronoun that you'd like to be used in the classroom. Please email your instructor or your TA if you would like to discuss the climate of this classroom for trans students. Gender neutral bathrooms are available at UVic.

### University of Victoria Students' Society (UVSS)

The <u>UVSS</u> is a social justice based non-profit run by students, for students and is entirely separate from UVic. As an undergrad student, you are already a member! We work on issues affecting students such as affordability, public

Sexualized Violence Prevention and Response at UVic

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.

# Social Life, Friends, & Community at UVic:

Having a social network is an extremely important foundation for positive mental health. There are lots of benefits to joining clubs, **A**(u)-**G**(b)-**C**(b)-