June 2 – June 24, 2022
11:30am–1:20pm
HSD 170

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Flexible (before/after class); By appointment
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This graduate course is designed to introduce you to a variety of advanced applications within the Structural Equation Modeling (SEM) and Multilevel Modeling (MLM) frameworks. Both SEM and MLM are

This advanced graduate 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, lectures will intentionally take up a small portion of class time, with much time allocated to hands-on analysis using both example data and personal data. I encourage each of you to engage in discussions (both in small and large groups), raising questions relevant to your personal research questions, troubleshooting with your fellow colleagues, and sharing solutions. Given the diversity of research questions and individual datasets, there will be much value in collectively sharing about the setbacks and solutions we encounter, fostering creativity in how we may think about our own research questions and analysis. Furthermore, the coverage of topics will flexibly adapt to the analytic approaches most suitable to your analytic projects.

After completing this course, I am committed to you achieving the following learning outcomes:

1. Obtain practical skills in specifying (i.e., generating/adapting software code/scripts for) a variety of advanced analytic techniques within the SEM and MLM frameworks
2. Be able to identify, interpret, and communicate relevant output and whether the results support the research questions at hand
3. Have an adequate understanding of when to apply each of the techniques covered, given the circumstances and nature of research questions and design
4. Enhance your communication skills (e.g., share ideas, hone presentation skills, respond to questions) when discussing statistical findings
5. Refine your scientific writing by producing (a) a section that succinctly summarizes your population, procedure, measures, and analytic strategy employed; and (b) a section that summarizes findings from your analysis project.

To achieve the learning outcomes, it is necessary for you to be engaged with class content and discussions, and to complete each of the assignments. Should circumstances prevent your attendance, please inform me (in advance if possible). If you are unable to submit the final written assignment on the specified date due to illness or family affliction, you should apply to the Dean of Graduate Studies for an academic concession (deferral or DEF). Failure to complete one or more class assignments will result in a grade of "N" regardless of the cumulative percentage of all other elements of the course. N is a failing grade and factors into GPA as a value of 0.

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Because this course will cover a variety of advanced topics, there is no one textbook that will provide adequate coverage of the course material. Instead, I have selected articles and chapters that specifically focus on each topic. Most of class time will be devoted to broad conceptual understanding and in-depth practical application of the analytic approaches. As such, the suggested readings often cover the more technical details of these approaches that will be useful as you engage more deeply. Due to the condensed timeframe of this course, it is not expected that all of these readings will be absorbed and fully understood within the 3-

Plagiarism . You must make sure that the work you submit is your work and not someone else's. There are proper procedures for citing the works of others. The student is responsible for being aware of and using these procedures.

2. Unauthorized Use of an Editor . The use of an editor is prohibited unless the instructor grants explicit written authorization.
3. Multiple Submission . Only under exceptional circumstances may a work submitted to fulfill an academic requirement be used to satisfy another similar requirement. The student is responsible for

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.

Discovering Victoria, UVic and your Community:

Grad school can involve a lot of time studying and researching on your own – but it does not have to be an isolating experience. There are a lot of other grad students out there like you who are looking to connect outside of academics.
https://www.uvic.ca/graduate/campus/student-services/index.php

Counselling Services:

Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. https://www.uvic.ca/student-

team/index.php#ipn-physicians

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