

BIOS 637. ADVANCED MODELING: SURVIVAL AND OTHER MULTIVARIABLE DATA.

Credits: 4

Offered by: Epidemiology and Biostatistics (Graduate Studies)

Terms offered: Winter 2026

[View offerings for Winter 2026 in Visual Schedule Builder.](#)

Description

Advanced applied biostatistics course dealing with flexible modeling of non-linear effects of continuous covariates in multivariable analyses, and survival data, including e.g. time-varying covariates and time-dependent or cumulative effects. Focus on the concepts, limitations and advantages of specific methods, and interpretation of their results. In addition to 3 hours of weekly lectures, shared with epidemiology students, an additional hour/week focuses on statistical inference and complex simulation methods. Students get hands-on experience in designing and implementing simulations for survival analyses, through individual term projects.

- Restriction(s): Graduate students in Biostatistics or Math/Stat programs, or permission of the instructor.
- Students are expected to have a good understanding of multivariable regression and basic knowledge of survival analysis.

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

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