

Math 6040/7260 - Linear Models - Spring 2022

Syllabus

Course Topics

The term “linear models” describes a wide class of methods for the statistical analysis of multivariate data. The underlying theory is grounded in linear algebra and multivariate statistics, but applications range from biological research to public policy. The objective of this course is to provide a solid introduction to both the theory and practice of linear models, combining mathematical concepts with realistic examples.

Lecture and Practicals

Mon 10:55am - 11:40am @ Tilton Memorial Hall 301 and
Zoom <https://tulane.zoom.us/j/96066182198> Wed 10:55am - 11:40am @ Tilton Memorial Hall 301
and Zoom <https://tulane.zoom.us/j/96066182198> Fri 10:55am - 11:40am @
Zoom <https://tulane.zoom.us/j/96066182198>

Instructor

Xiang Ji

Office: N.A. due to COVID

Email: xji4@tulane.edu

Office hours: Friday 9:30am - 10:45am with zoom link <https://tulane.zoom.us/j/96341432148>, or by appointment.

Course Webpage

<https://tulane-math-7260-2021.github.io/>

Topics:

- linear algebra review
- simple linear regression
- multiple linear regression
- hypothesis testing
- variance components and mixed models
- bootstrap
- normal and related distributions (if time permits)

ADA/Accessibility Statement

Any students with disabilities or other needs, who need special accommodations in this course, are invited to share these concerns or requests with the instructor and should contact Goldman Center for Student Accessibility: <http://accessibility.tulane.edu> (Links to an external site.) or 504.862.8433.

Code of Academic Conduct

The Code of Academic Conduct applies to all undergraduate students, full-time and part-time, in Tulane University. Tulane University expects and requires behavior compatible with its high standards of scholarship. By accepting admission to the university, a student accepts its regulations (i.e., Code of Academic Conduct ([Links to an external site.](#)) and Code of Student Conduct ([Links to an external site.](#))) and acknowledges the right of the university to take disciplinary action, including suspension or expulsion, for conduct judged unsatisfactory or disruptive.

Title IX

Tulane University recognizes the inherent dignity of all individuals and promotes respect for all people. As such, Tulane is committed to providing an environment free of all forms of discrimination including sexual and gender-based discrimination, harassment, and violence like sexual assault, intimate partner violence, and stalking. If you (or someone you know) has experienced or is experiencing these types of behaviors, know that you are not alone. Resources and support are available: you can learn more at allin.tulane.edu. Any and all of your communications on these matters will be treated as either “Confidential” or “Private” as explained in the chart below. Please know that if you choose to confide in me I am mandated by the university to report to the Title IX Coordinator, as Tulane and I want to be sure you are connected with all the support the university can offer. You do not need to respond to outreach from the university if you do not want. You can also make a report yourself, including an anonymous report, through the form at tulane.edu/concerns.

Confidential	Private
Except in extreme circumstances, involving imminent danger to one’s self or others, nothing will be shared without your explicit permission.	Conversations are kept as confidential as possible, but information is shared with key staff members so the University can offer resources and accommodations and take action if necessary for safety reasons.
Counseling & Psychological Services (CAPS) (504) 314-2277	Case Management & Victim Support Services (504) 314-2160 or srss@tulane.edu
The Line (24/7) (504) 264-6074	Student Affairs Professional On-Call (24/7) (504) 920-9900
Student Health Center (504) 865-5255	Tulane University Police (TUPD) Uptown - (504) 865-5911. Downtown – (504) 988-5531
Sexual Aggression Peer Hotline and Education (SAPHE) (504) 654-9543	Title IX Coordinator (504) 314-2160 or msmith76@tulane.edu