MATH 3850: Applied Statistics
Fall 2025

Instructor:
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Class Web Page:
https://faculty.uml.edu/jongsoo_lee/3850F25.html
Be sure to look for announcements, homework assignments and other course materials there.

Classroom and Time:
Olsen 408
TuTh 3:30-4:45 PM

Office Hours:
TuTh 8:00-9:30 AM
Or by appointment.

Texts:

- The main course material will be lecture slides, to be distributed.
- Additional text: Wackerly, Mendenhall, Scheaffer (WMS). *Mathematical Statistics with Applications*, 7th Ed., Duxbury. Chapters 1 to 13, not all material will be covered.

Overview:
In this course, students will learn mathematical and computational tools for applications in statistics. Topics include: study designs and representation of data, probability, random variables and distributions, inference (estimation, hypothesis testing, confidence intervals), regression and analysis of variance. Additional topics may be considered if time permits.

Objective and Goals:
By taking this course, students will learn

- How to correctly apply the statistical procedures and interpret the results.
- Concepts and designs for statistical analyses.
- Mathematical aspects of statistical inference (this course has a calculus 2 prerequisite).
- Use of statistical software package (will use R for this course).

Homework:
Homework will be assigned weekly (unless otherwise announced) and **must be turned in at or before the beginning of class on the due date**. You may work with fellow students on the homework problems, but please write up the homework solutions on your own and show all your work. Late homework will be subject to penalty unless the student has obtained a prior approval from the instructor (not accepted at all if more than a few days late or unexcused).
After submission, the homework score will be made available to students only by visiting the instructor and discussing the work.

Quiz and Exams:
There will be one in-class quiz followed by three in-class exams during the semester, and one take-home final exam/project. Dates TBD, but you will be given advanced notice.
All in-class quiz/exams are closed-book, but you may bring a limited amount of notes.

Attendance Policy:
Attending every class is required, and you are responsible for everything said in class. Excused absences require valid justification, and make-up works are at the discretion of the instructor.

Academic Integrity:
Academic dishonesty is prohibited in all programs of the University and sanctions may be imposed on any student who commits an act of academic dishonesty. Details on UML policy can be found at
`www.uml.edu/catalog/undergraduate/policies/academic-policies/academic-integrity.aspx`

Course Grade:

- 30% Homework and class participation
- 5% Quiz
- 15% Exam 1
- 15% Exam 2
- 15% Exam 3
- 20% Final Exam/Project