

Fall 2016 Stat 440/540: **Regression Analysis**

**Instructor:** Dr. Yan Lu, [luyan@math.unm.edu](mailto:luyan@math.unm.edu), <http://www.math.unm.edu/~luyan/stat44054016/stat44054016.html>

**Time and Location:** 1:00am-1:50pm MWF, DSH 129

**Office hours:** SMLC 316, MWF 10:00am-10:50am, or by appointment

**Textbook:** Applied Linear Statistical Models (Neter, Kutner, Nachtsheim, & Wasserman), 5th ed, data and student solution manual are available at <https://netfiles.umn.edu/users/nacht001/www/nachtsheim/5th/>

Reference: Analysis of Variance, Design and Regression, by Ronald Christensen, 2nd edition

**Prerequisites:** Stat 427/527 Advanced Analysis 1, Stat 345

**Topics:** This course will focus on simple regression and multiple regression along with the corresponding residual analysis and transformations. We will also study model inferences and model selection procedures such as stepwise regression. These topics are essentially Chapters 1-10 of the textbook.

**Computing**

R will be used in this class, R package can be downloaded from website for free <http://www.r-project.org>

**Grading:** Homework Assignments will be given about every 2 weeks to make for about a total of 7-8 assignments. They will be collected and graded. Homework 30%; Midterm Exam, 30%; Final Exam, 40%. Midterm exam will cover Chapters 3 and 7. Final exam will be comprehensive. Grading for graduate students and undergraduates will be separate.

	Stat 540	Stat 440
A	90%-100%	85%-100%
B	80%-89%	70%-84%
C	65%-79%	60%-69%
D	under 64%	under 60%