



Account

Dashboard

Courses

Calendar

Inbox 296

History

Commons

Help 10

←

2023 May/Summer (04/22...

- Home
- Announcements
- Assignments
- Discussions
- Media Gallery
- Grades 1
- People
- Files
- Syllabus
- Modules
- Collaborations
- Chat
- Google Drive
- Student Rating of Teaching
- NameCoach Roster
- Gradescope
- Library Course Materials

## Lab #3

**Due** Jun 26 by 11:59pm    **Points** 30    **Submitting** a text entry box or a file upload  
**Available** Jun 12 at 12am - Jun 26 at 11:59pm

This assignment was locked Jun 26 at 11:59pm.

EE5373: Data Modeling Using R  
Summer, 2023

Department of Electrical and Computer Engineering  
University of Minnesota

[Lab 3: Simple linear regression.](#)

Due date: See the due date shown on the class web page.

Goal: This lab introduces simple linear regression modeling.

What to do:

Develop a simple linear regression model from the dataset Prostate. (Use package "genridge" and load data(prostate)) Use "lpsa" as the input (independent) variable and, "lcavol," as the output (dependent) variable. Evaluate the quality of the model by discussing the residuals, the p-values of the coefficients, the residual standard errors (just report this number), and the  $R^2$  values, and by performing appropriate residual analysis. Highlight how the model meets/does not meet each of the linear regression assumptions. Create a scatterplot with the regression line.

What to turn in for grading:

Write a short lab report showing each of your models (that is, the coefficients for each of your models), including appropriate plots, and explaining your quality analysis.