



## **MLAS 530S: Biostatistics in Veterinary Science**

### **Instructor**

Jung-Jin Lee, jl3468@drexel.edu

Course Meeting Time: Tuesdays 6:00 – 8:50 pm

Zoom link: <https://drexel.zoom.us/j/82949581353>

### **Course Description**

The course is an introduction to basic statistical concepts and methods used in veterinary science and clinical research. It will cover techniques to describe and summarize data. It will also cover tests to determine how much chance may explain or influence observed results.

### **Required Text**

None

### **Course Webpage**

<https://junglee0713.netlify.app/2021/01/01/drexel-lectures-spring-2021/>

### **Course Objectives**

Upon completion of this course, students should be able to:

- Understand different types of data
- Visualize given data
- Calculate confidence intervals for population means
- Perform one/two-sample and paired t-tests
- Perform F-tests and other hypothesis tests
- Understand p-values
- Understand simple linear regression and correlation
- Use a statistical software to plot graphs, calculate confidence intervals, perform various statistical tests, and perform simple/multiple linear regressions.

## Required Software

You will need to install **R**, a programming language for statistical computing, and **RStudio**, an integrated development environment for R. Both can be downloaded for free. Follow the instructions below (**IMPORTANT: Install R first, and then RStudio**):

- 1) Go to <http://www.r-project.org/>
- 2) Click on CRAN under “Download” on the left.
- 3) Choose a mirror site, e.g., <http://lib.stat.cmu.edu/R/CRAN/>, and choose a package corresponding to your operating system (R supports Windows, Mac, and Linux). Follow instructions and install base R (version 4.0.3 as of Dec 20, 2020).
- 4) **After installing R**, to install RStudio, go to <http://www.rstudio.com/products/rstudio/download/>
- 5) Choose an installer for your operating system and follow instructions to download free desktop version (version 1.3.1093 as of Dec 20, 2020).

## Students with Disabilities

Students with disabilities requesting accommodations and services at Drexel University need to present a current accommodation verification letter (“AVL”) to faculty before the University can make accommodations. The Office of Disability Services (“ODS”) issues AVLs. The ODS is responsible for processing and evaluating requests students make for reasonable accommodations. For additional information, contact the ODS at 3201 Arch Street, Suite 210, Philadelphia, PA 19104 v: 215-895-1401 TTY: 215-895-2299. All discussions will remain confidential. <http://www.drexel.edu/disability>.

## Academic Policies

It is the responsibility of all Drexel students to be familiar with University’s academic policies such as academic integrity, adding/dropping courses, withdrawals, etc.

## Grading Policy

The final grade is a letter grade with suffixes based on the following scale:

Range (%)	Letter Grade	Grade Points
90-100	A	4.0
87-89	A-	3.7
84-86	B+	3.3
80-83	B	3.0
77-79	B-	2.7
74-76	C+	2.3
70-73	C	2.0
67-69	C-	1.7
64-66	D+	1.3
60-63	D	1.0
59 and below	F	0.0

## Grade Distribution

Evaluation	Percent of Final Grade
Weekly Homework	30%
Midterm 1	20%
Midterm 2	20%
Final	30%

## Exam Schedule

Midterm 1: Feb 9, 2021

Midterm 2: Mar 16, 2021

Final: April 27, 2021

All exams are open book/notes and access to internet resource is allowed. The final exam will be cumulative.