

**EAS 501 Introduction to R - Winter 2019 -
1 credit hour**

Instructor: Meha Jain (mehajain@umich.edu)

Student Helpers: Nishan Bhattarai & Weiqi Zhou

Class Meeting Times: Sat Jan 12 & Sun Jan 13
9-5 PM (1 hour lunch break from 12-1)

Textbook(s):

No required textbook. All students should have R (<https://www.r-project.org/>) and R Studio downloaded on their laptop before class (<https://www.rstudio.com/>).

Overview: This class will introduce students to the basics of using R. By the end of this 2 day workshop, you will learn the basics of using R (how to load in data, how to create plots, how to clean datasets, how to prepare data for statistical analyses). You will also be introduced to basic concepts of coding (what is a vector, what is a list, how and why would I use functions and/or loops?). This course is meant to serve as an introduction to R for those students who are taking EAS 538 (Natural Resource Statistics). That being said, this class is open to anyone who is interested in learning the basics of using R. It is important to note that we will not cover how to do statistics in R, since that is what is covered in EAS 538.

Learning Mechanisms: (1) short lectures and (2) in-class labs

Evaluation: The final grade will be satisfactory/unsatisfactory based on completing the in class lab at the end of the 2 day workshop.

Note 1: If you need accommodations for a disability, please contact the Services for Students with Disabilities (SSD) office at 734-763-3000 or email ssdoffice@umich.edu. You are also welcome to email the instructor or drop by during office hours to discuss your academic needs.

Note 2: Students are expected to take personal responsibility for understanding and observing the Rackham Academic and Professional Integrity Policy. Zero credit will be given for any assignments involving acts of dishonesty, and additional acts can result in failing the class. Please see the following link for more details: <http://www.rackham.umich.edu/current-students/policies/academic-policies/section11>

Note 3: In order to enroll and receive credit for the course, students MUST attend both full workshop days (from 9 am – 5 pm). Partial attendance is not allowed. Attendance will be taken during the workshop.

Schedule

- Saturday
 - 9-12 (w 15 min break): Intro to R Basics
 - 12-1: Lunch/Office hours
 - 1-3 (w 15 min break): Intro to R Basics (continued)
 - 3-5: Plotting data

- Sunday
 - 9-12: Dplyr and data wrangling
 - 12-1: Lunch/Office hours
 - 1-3: For loops
 - 3-4: Writing your own functions and apply
 - 4-5: Self grading and assignment upload