



STA 3100 (Class Number: 27846)

Programming with Data in R

Fall 2021

MWF 8:30-9:20 a.m. (Room: LIT 0113)

The course is offered fully in person. You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated.

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Instructor: Juhyung Lee

Office: Griffin-Floyd 103B
Office Hours: TR 10:00-11:00 a.m. via Zoom (link: TBA)
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Teaching Assistant: Yiqiao Zhang

Office: TBA
Office Hours: TBA
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Course Description: An introduction to statistical computing and programming with data. Topics include basic programming in R; data types and data structures in R; importing and cleaning data; specifying statistical models in R; statistical graphics; statistical simulation using pseudo-random numbers; reproducible research and the documentation of statistical analyses.

- Install [R](#) and [RStudio](#) (IDE for R) on your PC.

Prerequisites: STA 3032 or STA 2023.

Course Website: [e-Learning](#). Check course website regularly for any updates.

Course Material: Lecture notes and R scripts posted on course website.

Useful References:

1. *An Introduction to R* by Venables, Smith, and the R Core Team.
2. *R for Data Science* by Wickham and Grolemund.

Course Communication: Office hours and email.

- Always wear a mask if you plan to visit me or TA in person.
- Put **3100** in the subject line of your email. I use course numbers to search emails from students.

Course Objectives:

1. Import data into R and prepare the data for analysis.
2. Write functions in R making effective use of data structures and control structures.
3. Determine statistical graphics appropriate to a statistical analysis and produce them using R.
4. Formulate statistical models in the R language.
5. Perform and document a basic statistical analysis.
6. Carry out basic simulations.
7. Document and report the results of data analyses and simulations in a reproducible way.

Assignments and Grading:

- Grades will be based on the following components.

Homework	Final Exam (take-home)	Total
75%	25%	100%

- For each assignment (homework/exam), you should submit the following two files to the relevant dropbox on course website.
 1. **One single pdf file** of your report showing your steps, output, and interpretations.
 2. **One single R file** containing the code used to produce the output in your report.
- **No late homework will be accepted.** However, the lowest homework score will be dropped at the end of the semester.
- I will strictly follow the cutoffs below for letter grades.

B+	87 to < 90	A	92 to 100	A-	90 to < 92
C+	77 to < 80	B	82 to < 87	B-	80 to < 82
D+	67 to < 70	C	72 to < 77	C-	70 to < 72
E	< 60	D	62 to < 67	D-	60 to < 62

Academic Integrity:

You may discuss homework with each other, but you must write up your solutions independently. You may never discuss exams with each other. You are held accountable to the [UF Student Honor and Conduct Code](#).

Students with Disabilities:

Students requesting accommodation for disabilities must first register with the [Disability Resource Center \(DRC\)](#). The DRC will provide documentation to the students who must then provide this documentation to the instructor when requesting information. You must submit this documentation prior to submitting any assignments for which you are requesting accommodation.

Course Evaluations:

Students are expected to provide feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.