

# DSA 5011 INTRODUCTION TO R

## FALL-2020

Online Course- 1 credit hour

**Instructor:** Wayne Stewart

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**Office Hours:**

Lecturer: Wayne Stewart

Email: [wayne.s.stewart@ou.edu](mailto:wayne.s.stewart@ou.edu)

Monday: <https://oklahoma.zoom.us/j/91395870892?pwd=ZGtyZmkrb3dkS2x3NHVlSEcvbVczQT09>

TA: Elahe (Ellie) Jafarigol

Email: [Elaheh.jafarigol@ou.edu](mailto:Elaheh.jafarigol@ou.edu)

Office hours: Thursdays 1:30 pm-2:20 pm

Zoom meeting:

<https://oklahoma.zoom.us/j/99730575067?pwd=L1VOdmxoNWZBTkVGVmxjYzc2S0tzUT09>

Meeting ID: 997 3057 5067

Passcode: 54606238

### LEARNING MANAGEMENT SYSTEM

<https://canvas.ou.edu>

### COURSE MEETING TIME & LOCATION

Fully online. See course schedule

### PREREQUISITES

There are no prerequisites for this course.

### COURSE DESCRIPTION

R is a free open source statistical programming language used by professionals in every field and industry. This introductory course aims to provide you with the fundamentals of R and R Studio. You will view screencasts, watch demonstrations and read assigned texts. Then you will apply what you've learned to solve real data problems while receiving instant and personalized feedback that guides you to the correct solution.

### COURSE GOALS & LEARNING OBJECTIVES

By the end of this course, you will know be able to:

- Read data into R
- Write basic and more sophisticated functions
  - Use R markdown
  - Write basic mathematical equations with Latex
- Produce standard plots
- Manipulate data frames, tables and matrices
- Solve real data problems
- Use R as a calculator
- Create graphics and data visualizations using base and packaged functions

### REQUIRED TEXTBOOKS

All course content will be made available through the JANUX platform.

### REQUIRED SOFTWARE (ALL FREE)

Please download R from cran and RStudio from rstudio – these are both free – see project details.  
Then download and install a full edition of latex – MikTeX is the best – again this is free see video linked in the project.  
<https://cran.r-project.org/>  
<https://www.rstudio.com/products/RStudio/#Desktop> (Get the free version)  
<https://miktex.org/download>

## COURSE FORMAT

The course is delivered in an online format, consisting of lectures, demonstrations, quizzes, and unit projects.

## UNIT QUIZZES

Students are responsible for all of the material covered from the readings, lectures, demonstrations, and any other assigned materials. Each unit features a short quiz. Each quiz is designed to check key points from the readings and videos, and to help you prepare for the unit project.

## UNIT PROJECTS

Each unit will feature a mini-project. You will be required to integrate and/or apply the knowledge and skills you have previously developed in order to complete a small task.

## FINAL PROJECT

## EVALUATION

Individual grades in the course are determined by a combination of quizzes and projects. All grades will be in points. Total points in the course are distributed as shown below:

Type	Description	Total percentage points
Quizzes	8 quizzes	25
Projects	8 projects	50
R Functions Project	<b>Two functions(extensive) in Rmd</b>	<b>25</b>
		<b>Total: 100%</b>

Grading Scheme: A = 90s, B= 80s, C= 70s and 60s, D=50s, F < 50

## LATE POLICY

All quizzes and projects are due on Sundays at 11:59 pm (except for the final week of class, when your work is due on Friday). The Janux platform will accept late submissions but will highlight late work by marking it in red. **You will be given 0 points for late work.** However, please note, assignments can be turned in early.

## COURSE POLICY ON ACADEMIC INTEGRITY

Cheating is strictly prohibited at the University of Oklahoma. As a member of the OU community it is your responsibility to protect your educational investment by knowing and following the rules. Should you see someone else engaging in this behavior, I encourage you to report it to myself or directly to the Office of Academic Integrity Programs. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and an F in this course, so don't cheat. It's simply not worth it. For specific definitions on what constitutes cheating, review the Student's Guide to Academic Integrity at [http://integrity.ou.edu/students\\_guide.html](http://integrity.ou.edu/students_guide.html).

## REASONABLE ACCOMMODATION POLICY

Students requiring academic accommodation should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please see the Disability Resource Center website <http://www.ou.edu/drc/home.html> Any student in this course who has a disability that may prevent him or her from fully

demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

### **RELIGIOUS OBSERVANCE**

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty.

### **TITLE IX RESOURCES AND REPORTING REQUIREMENT**

For concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on call 24/7. To learn more or to report an incident, please contact the Sexual Misconduct Office at 405-325-2215 (8 to 5, M-F) or OU Advocates at 405-615-0013 (24/7). For more information, please see <http://www.ou.edu/eoo>.

### **ADJUSTMENTS FOR PREGNANCY/CHILDBIRTH RELATED ISSUES**

Should you need adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me or the Disability Resource Center at 405/325-3852 as soon as possible.  
<http://www.ou.edu/eoo/faqs/pregnancy-faqs.html>

### **TECHNICAL SUPPORT**

Your instructor will not be able to help with issues related to the Janux platform. Requests for platform assistance should be directed to the NextThought Help Center at [janux@ou.edu](mailto:janux@ou.edu) (on the Course Info page). For OU IT support, please phone (405) 325-HELP.

## **COURSE SCHEDULE**

Please consult CANVAS for the details of when assignments will be due.

\*You can access all reading and video materials in advance. Quizzes and projects will open on Mondays and will be due the following Sunday.

\*\*Students are responsible for any changes/additions to this syllabus announced over the course of the semester.