



R for Statistics and Data Analytics Course Syllabus

Weeks	Date	Agenda	Topic	Assignment
Week 1	Jan.24, 2020	Intro to R	<ul style="list-style-type: none"> • Why learns R? • Installing R and RStudio on operating system • Installing R and RStudio on operating system • Installing R packages required during the class • Dividing class into group • Basic and Advanced mathematic calculation 	<ul style="list-style-type: none"> • 10 Advanced mathematics question to solve in R • Reference page 1 - 20
Week 2	Jan.31, 2020	Fundamentals of R programing	<ul style="list-style-type: none"> • Object (vectors, metrics, data frames) • Data types (character, numeric, logical) 	<ul style="list-style-type: none"> • Assignment 1 • Reference page 20 – 40
Week 3	Feb.07, 2020	Functions	<ul style="list-style-type: none"> • Most used/ common functions • Build own function 	<ul style="list-style-type: none"> • Assignment 2 • Reference page 40 - 60
Week 4	Feb. 14, 2020	Data manipulation with dplyr	<ul style="list-style-type: none"> • Importing data into R (Excel, SPSS, STATA, Text) • Renaming values (columns and Rows) • Changing between data type • Data Analysis 	<ul style="list-style-type: none"> • Assignment 3 • Reference page 60 - 80
Week 5	Feb, 21, 2020	Data manipulation (practice)	<ul style="list-style-type: none"> • Analyzing Kankor-1398 data • Analyzing Titanic data 	<ul style="list-style-type: none"> • Assignment 4 • Reference page 80 – 100
Week 6	Feb. 28, 2020	Data visualization with ggplot2	<ul style="list-style-type: none"> • When to visualize • Data visualization principals • Use R to produce graphs 	<ul style="list-style-type: none"> • Assignment 5 • Reference page 100 - 120
Week 7	Mar.06, 2020	Data visualization (practice)	<ul style="list-style-type: none"> • Visualizing Titanic data • Visualizing Kankor data 	<ul style="list-style-type: none"> • Assignment 6 • Reference page 120 - 140

Week 8	Mar.13, 2020	Data presentation with RMarkdown	<ul style="list-style-type: none"> • Producing reports in documents (Ms. Word, PDF, HTML) • Building presentations (PPT) 	<ul style="list-style-type: none"> • Assignment 7 • Reference page 140 - 160
Week 9	Mar.20, 2020	Advanced data presentation with Shiny App	<ul style="list-style-type: none"> • Creating web portals • Interactive dashboards • Website/ weblog 	<ul style="list-style-type: none"> • Assignment 8 • Reference page 160 - 180
Week 10	Mar.27, 2020	Advanced Statistics with R	<ul style="list-style-type: none"> • Hypothesis testing in R • Regressions • Various types of tests 	<ul style="list-style-type: none"> • Assignment 9 • Reference page 180 - 200
Week 11	April 3, 2020	Qualitative data analysis	<ul style="list-style-type: none"> • Text analysis • Analyzing tweets from Twitter • Visualizing text data • Sentimental Analysis 	<ul style="list-style-type: none"> • Assignment 10 • Reference page 200 - 250
Week 12	April 10, 2020	Course warp up	<ul style="list-style-type: none"> • Q & A • Work on a R project from A to Z • Distribution of Certificates 	

Trainer's Profile:

Jerkattoo Googolor

Mr. Jerkattoo graduated from Kabul University with a Bachelor in Business Administration. During university, he traveled twice in South Asian Economic Students' Meet in Bhutan and Nepal to present his research on Afghanistan's economy. He has four years of professional experience in research and data analytics. He worked with the Afghan United Bank as a Data Quality Officer and later joined Afghanistan Holding Group as a Research Analyst. Currently, he is working with the National Statistics and Information Authority as a Data Analyst. Besides, he works as a freelance Event Analyst with Etilaat Roz News Agency.

He has participated in various professional training in and abroad. In 2014, he attended a training on "Open Data" by the World Bank in Nepal. Also, he has passed many online certifications on data analysis tools such as R and Tableau. Recently in November 2018, he attended advanced training at the United Nations Statistical Institute on "Data Visualization" in Japan. His specialization lies in research, data analysis, and data visualization. He is also the founder of the Open Data Initiative which aims to make data accessible and comprehensible to the general public.