

Course Syllabus
Special Summer Program 2020

Course title	Data Analysis with R		
Month of offering the course	July <input checked="" type="checkbox"/> August <input type="checkbox"/>	Way of teaching	F2F <input checked="" type="checkbox"/> Online (Zoom) <input type="checkbox"/>
Teaching schedule	Day of the Week: Tuesday	Time: 8:50-10:20 & 10:30-12:00	
Names of Instructor	Chuang, Hongwei		Total No. of Classes (90min) 8
Course description	<p>This course is designed as the first step to gain the analytical skills that you need to open the door of data science. <i>Focus on the R statistical computing language. No computing background necessary.</i> You will learn how to import, clean, manipulate, analyze, and visualize data in R. Also, you will develop your data manipulation and exploratory data analysis skills by working with a wide range of real-world datasets and combines techniques from statistics, math, computer science, and social sciences. Through gaining experience in data wrangling and munging, exploratory data analysis, predictive modeling, data visualization, and effective communication of results, you might be able to understand natural phenomena, explore patterns, model outcomes, and even more make predictions.</p>		
Texts (readily available for free should be chosen)	<ul style="list-style-type: none"> • James, Witten, Hastie, and Tibshirani “An Introduction to Statistical Learning: with Applications in R” 7th ed. http://faculty.marshall.usc.edu/gareth-james/ISL/ • Grolemund and Wickham “R for Data Science” https://www.tidyverse.org/ • UCLA: Institute of Digital Research & Education Statistical Consulting https://stats.idre.ucla.edu/r/ 		
Remarks (delivery methods, pre-requisite, class outline, etc.)	<p>Topics covered during this session</p> <ul style="list-style-type: none"> ◆ Week 1: Getting started with R ◆ Week 2: Analyzing your data ◆ Week 3: Visualization your data ◆ Week 4: Regression analysis 		