

## EPID 799B: Introduction to R (for epidemiologists): M/W 10:10-11:00am McG 2303

Day		Date	Topic	Lecturer	Due*
1	W	8/24/2016	Introduction to the course	Nat	
2	M	8/29/2016	Introduction to R and RStudio	Nat & Mike	
3	W	8/31/2016	Programming with R (nuts and bolts) I	Nat	
4	M	9/5/2016	Labor Day		
5	W	9/7/2016	Programming with R (nuts and bolts) II	Nat	
6	M	9/12/2016	Programming with R (nuts and bolts) III	Xiaojuan	
7	W	9/14/2016	Functions (basic functions and functions for stat analyses); Loops I	Xiaojuan	
8	M	9/19/2016	Functions (write your own functions); Loops II	Nat	HW1 (nuts & bolts of R); Project (objective & dataset)
9	W	9/21/2016	Data management in R I	Nat	
10	M	9/26/2016	Data management in R II	Xiaojuan	HW2 (functions, loops and subsetting); Project (methods)
11	W	9/28/2016	Data management in R III: special packages (e.g, dplyr, tidyr, reshape)	Brian Barkley	
12	M	10/3/2016	Base graphics	Mike	
13	W	10/5/2016	ggplot I	Xiaojuan	
14	M	10/10/2016	ggplot II	Victor Ritter & Mike	HW3 (data management); Project (data cleaning)
15	W	10/12/2016	apply() family	Nat	
16	M	10/17/2016	Tips and tricks	Mike	HW4 (graphics); Project (descriptive analyses)
17	W	10/19/2016	GLMs	Nat	
18	M	10/24/2016	Survival analysis (KM, Cox, parametric)	Mike	
19	W	10/26/2016	Multi-level models (fixed, mixed, GEE)	Nat	
20	M	10/31/2016	Reports from R	Mike	HW5 (modelling); Project (graphics and/or modeling)
21	W	11/2/2016	Git & <b>Open Project Time</b>	Nat	
22	M	11/7/2016	GIS	Mike	
23	W	11/9/2016	Debugging codes	Nat & Xiaojuan	
24	M	11/14/2016	Network analysis	Nalyn Siripong	<b>PROJECT</b>
25	W	11/16/2016	Interactive R (e.g. ggvis, shiny, etc)	Antoine Baldassari	
26	M	11/21/2016	Object-oriented programming (S3 & S4)	Nat	
27	W	11/23/2016	Thanksgiving		
28	M	11/28/2016	Project feedback	Nat & Xiaojuan	
29	W	11/30/2016	Simulations	Alex Keil	
30	M	12/5/2016	Bayes (MCMC, extensions to R)	Alex Keil	
31	W	12/7/2016	Wrap-up	Alan, Nat & Xiaojuan	

\* Homework will be due at midnight on Mondays, to be submitted on Sakai under assignments. Final Project is submitted to the Sakai forum.