

## Welcome!

Welcome to **the star lab** introduction to R . The instructor is Arthur Spirling and his contact details are:

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If you have comments or questions about the class, or about R more generally, please be in touch. Your contributions help make the classes better.

The class takes place in **the star lab** from 5:45 to 6:45 Monday to Thursday (possibly Friday) beginning Monday 17th September.

The intention of the class is to communicate

- what R is, and why it is helpful in the Department/political science research
- basic R command syntax and structure
- useful R tools and procedures for executing homeworks and research

Because the introduction is primarily intended for first year students new to R , information on statistical model fitting (405/505), maximum likelihood routines (505) and Bayesian approaches (506) will be in short supply. It is expected that these topics will be covered in more detail in those classes.

The week proceeds as follows:

1. Introduction to R : demonstrations; calculations; assignments; vectors; matrices; the plotting engine
2. Data: reading in data; sending data out; attaching; search path; properties; saving
3. Data II: tests; legends and plot additions; re-ordering data; missingness and logical vectors
4. Writing Programs and Functions: conditional statements; new functions; loops; sampling

Notice that we cover similar subjects on consecutive days: the idea is to first master the basics, then do some more complicated operations later—especially when they seem relevant to other operations. This is how most people learn R in practice, and I think it is a better approach than having a whole day on one thing like ‘plotting’ or ‘data.’

If there is demand, we could have a day on statistical modeling, but I will try hard to keep Friday evening free.