

Documentation on using ioslides is available here: http://rmarkdown.rstudio.com/ioslides_presentation_format.html Some slides are adopted (or copied) from OpenIntro: <https://www.openintro.org/>

Agenda

- Introduction
 - Syllabus
 - Assignments
 - Homework
 - Labs
 - Data Project
 - Final exam
 - Meetup Presentation
 - The DATA606 R Package
 - Using R Markdown

Introduction

A little about me:

- Currently Executive Director at [Excelsior College](#)
 - Principal Investigator for a Department of Education Grant (part of their FIPSE First in the World program) to develop a Diagnostic Assessment and Achievement of College Skills (www.DAACS.net)
- Authored over a dozen R packages including:
 - [likert](#)
 - [sqlutils](#)
 - [timeline](#)
- Specialize in propensity score methods. Three new methods/R packages developed include:
 - [multilevelPSA](#)
 - [TriMatch](#)
 - [PSAboot](#)

Also a Father...



And photographer.



Syllabus

Syllabus and course materials are here: <http://data606.net>

We will use Blackboard to submit assignments.

Please submit PDF files and if you used Rmarkdown, the Rmd file too.

Course Calendar

See <http://data606.net/schedule/> for up-to-date calendar.

Start	Due Date	Chapter	Topic
Aug-27	Sep-9	1	Intro to Data
Sep-10	Sep-23	2	Probability
Sep-24	Oct-7	3	Distributions
Oct-8	Oct-21	4	Foundation for Inference
Oct-22	Oct-28	5	Inference for Numerical Data
Oct-29	Nov-4	6	Inference for Categorical Data
Nov-5	Nov-25	7	Linear Regression
Nov-26	Dec-9	8	Multiple & Logistic Regression
Dec-10	Dec-12	Navarro	Introduction to Bayesian Analysis
Dec-13	Dec-17		Final Exam

Assignments

- Getting Acquainted (1%)
- [Homework](#) (16%)
 - Approximately six problems per chapter.
 - Answers can be handwritten or typed (I suggest using R Markdown)
 - Submit a PDF on Blackboard.
- [Labs](#) (40%)
 - Labs are designed to introduce to you doing statistics with R.
 - Answer the questions in the main text as well as the "On Your Own" section.
 - Submit both the R Markdown file and PDF of the output on Blackboard.
- [Data Project](#) (20%)
 - This allows you to analyze a dataset of your choosing. Projects will be shared with the class. This provides an opportunity for everyone to see different approaches to analyzing different datasets.
 - Proposal is due March 7th (5%); Final project is due May 16th (15%).
- Final exam (18%)
- [Meetup Presentation](#) (5%)
 - Present one practice problem during our weekly meetups. Signup using the [Google Spreadsheet](#).

Communication

- Slack Channel: <https://data606fall2018.slack.com>
 - [Click here to join the group](#)
- Github Issues - Use this for issues or problems with the course or DATA606 package:
<https://github.com/jbryer/DATA606Fall2018/issues>
- Email: jason.bryer@gmail.com
- Phone/GoToMeeting: Please email to schedule a time to meet.

The DATA606 R Package

The package can be installed from Github using the `devtools` package.

```
devtools::install_github('jbryer/DATA606')
```

Important Functions

- `library('DATA606')` - Load the package
- `vignette(package='DATA606')` - Lists vignettes in the DATA606 package
- `vignette('os3')` - Loads a PDF of the OpenIntro Statistics book
- `data(package='DATA606')` - Lists data available in the package
- `getLabs()` - Returns a list of the available labs
- `viewLab('Lab0')` - Opens Lab0 in the default web browser
- `startLab('Lab0')` - Starts Lab0 (copies to `getwd()`), opens the Rmd file
- `shiny_demo()` - Lists available Shiny apps

Using R Markdown

R Markdown files are provided for all the labs. You can start a lab using the `DATA606::startLab` function.

However, creating new R Markdown files in RStudio can be done by clicking `File > New File > R Markdown`.