

# Knowing when and where to get help

---

Jeff Leek

@jtleek

[www.jtleek.com](http://www.jtleek.com)

**We covered a tiny fraction of statistics**



## Statistics and R for the Life Sciences

An introduction to basic statistical concepts and R programming skills necessary for analyzing data in the life sciences.



Self-Paced

[Enroll Now](#)

☒ I would like to receive email from Harvard University and learn about its other programs.

### About this course

8 Reviews 4/5 ★★★★★

We will learn the basics of statistical inference in order to understand and compute p-values and confidence intervals. We will provide examples by programming in R in a way that will help make the connection between concepts and implementation. R programming will be used to test

[PH525.1x: Statistics and R for the Life Sciences](#)

[PH525.2x: Introduction to Linear Models and Matrix Algebra](#)

[PH525.3x: Advanced Statistics for the Life Sciences](#)

[PH525.4x: Introduction to Bioconductor](#)

[PH525.5x: Case study: RNA-seq data analysis](#)

[PH525.6x: Case study: Variant Discovery and Genotyping](#)

[PH525.7x: Case study: ChIP-seq data analysis](#)

[PH525.8x: Case study: DNA methylation data analysis](#)

[About This Specialization](#)[Courses](#)[Pricing](#)[Creators](#)[FAQs](#)

## Data Science Specialization

From \$29

Enroll

Starts September 7, 2015

Share    

# Launch Your Career in Data Science

A nine-course introduction to data science, developed and taught by leading professors.

About This Specialization

Ask the right questions, manipulate data sets, and create

**Statistics requires lots of practice**

08  
JUN

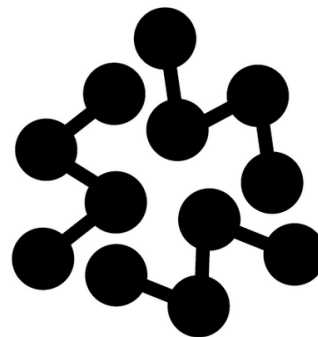
# I'm a data scientist - mind if I do surgery on your heart?

POSTED BY JEFF LEEK / UNCATEGORIZED



There has been a lot of recent interest from scientific journals and from other folks in creating checklists for data science and data analysis. The idea is that the checklist will help prevent results that won't reproduce or replicate from the literature. One analogy that I'm frequently hearing is the analogy with checklists for surgeons that **can help reduce patient mortality**.

The one major difference between checklists for surgeons and checklists I'm seeing for research purposes is the difference in credentialing between people allowed to perform surgery and people allowed to perform complex data analysis. You would never let me do surgery on you. I have no medical training at all. But I'm frequently asked to review papers that include complicated and technical data analyses, but have no trained data analysts or statisticians. The most common approach is that a postdoc or graduate student in the group is assigned to do the analysis, even if





## RECENT POSTS

[Interview with COPSS award Winner John Storey](#)

[The Next National Library of Medicine Director Can Help Define the Future of](#)

**It is ok to ask for help**



JOHNS HOPKINS  
BLOOMBERG SCHOOL  
of PUBLIC HEALTH

# BIOSTATISTICS CENTER

Biostatistics supporting health research



[Home](#)

[News & Events](#)

[About Us](#)

[Meet Our Team](#)

[Services](#)

[Tools/Resources](#)

[Center Bibliography](#)

[Policies](#)

[Make a Gift](#)

[Contact Us](#)

## Welcome

The Johns Hopkins Biostatistics Center (JHBC) provides the latest in biostatistical and information science expertise to a wide range of clients in the Johns Hopkins Medical Institutions and beyond. We consult to health researchers at other academic health centers, pharmaceutical companies, medical research organizations, managed care organizations and government agencies. We provide a wide range of [services](#) and guidance; examples of our collaborative efforts can be found in our [Center Bibliography](#).

Our [team](#) is comprised of Masters and PhD level statisticians and computer scientists from the Johns Hopkins Department of Biostatistics and affiliated faculty from other quantitative departments. There are also opportunities for students to be involved in the Center, with training in consulting processes, biostatistical methods, and substantive areas. For statisticians who may be interested in working with us, see our [employment opportunities](#) listed under [News and Events](#).

We invite you to find out more [about us...](#)

***Questions about statistical consulting?***

**REQUEST  
A MEETING**



Our Biostatistics  
Center Team

## Upcoming Events

### **Student Walk-in Clinic**

Fridays 10:30am - 12  
noon

Room E3141

Clinic slots are limited.

*Sign-in begins at*