

Teaching Resources

Matthew Beckman

Online Resources for Teaching Statistics

Website with materials from today's session: <https://mdbeckman.github.io/PSU-Grad-Orientation/>

General Resources

Guidelines for Assessment and Instruction in Statistics Education (GAISE)

2016 GAISE College Report: <http://www.amstat.org/education/gaise>

Recommended best practices for Statistics Education. Short description of 6 recommendations accompanied by concrete implementation strategies, sample resources, references, etc.

Consortium for the Advancement of Undergraduate Statistics Education (CAUSE)

<http://www.causeweb.org> (Now hosted by Penn State!)

The resources tab provides lots of useful materials sorted by topic, such as applets, cartoons, powerpoint slides, tutorials, data, suggested interactive activities, and more.

ASA's Collection of Useful Links

<https://www.amstat.org/education/resourcesforundergradteachers.cfm>

Useful links for undergraduate teachers of statistics. Clicking on "Useful Web Sites for Teachers" will bring up many more useful links.

Data Repositories

Chance News Wiki:

http://test.causeweb.org/wiki/chance/index.php/Main_Page

Reviews current stories in the news that involve probability or statistical concepts.

Chance Magazine's "Taking a Chance in the Classroom"

<http://chance.amstat.org/category/columns/taking-a-chance-in-the-classroom/>

Datasets and corresponding papers with suggestions classroom use. ASA login required.

Journal of Statistics Education Data Archive

http://www.amstat.org/publications/jse/jse_data_archive.htm

More data, although not sorted by statistical topic so a bit harder to find appropriate data.

Robin Lock's Website:

<http://it.stlawu.edu/~rlock/maa51/data.html>

Links to other data sources

Data and Story Library (DASL)

<http://lib.stat.cmu.edu/DASL/>

Lots of real data, searchable by real-world topic or statistical method.

StatLib – Datasets Archive

<http://lib.stat.cmu.edu/datasets/>

One of the original sources for archived data

Lots more...

<https://data.cityofnewyork.us/>

<https://github.com/fivethirtyeight/data>

<http://www.datasciencecentral.com/profiles/blogs/great-github-list-of-public-data-sets>

<http://www.icpsr.umich.edu/icpsrweb/ICPSR/>

<https://www.springboard.com/blog/free-public-data-sets-data-science-project/>

<https://www.dataquest.io/blog/free-datasets-for-projects/>

Even more... (link)

Applets**Lock⁵ StatKey**

<http://www.lock5stat.com/statkey>

Sampling distributions, bootstrapping, randomization tests, theoretical distribution “tables”

onlinestatbook.com

http://onlinestatbook.com/stat_sim/index.html

Lots of applets, all searchable by statistical topic.

Rossman and Chance Applets

<http://www.rossmanchance.com/applets/>

Website for applets, many of which coincide with interactive activities.