Essential Websites for College Astronomy 101 Instructors

by Andrew Fraknoi (Fromm Institute, U. of San Francisco) Version 3.0; May 2022

Free Online Astronomy Textbooks:

Fraknoi, Morrison, & Wolff: http://openstax.org/details/astronomy

Impey: http://www.teachastronomy.com (also includes many videos)

Free Online Laboratory Exercises (A Topical Index): http://bit.ly/astronomylabs

Free Online Astronomy Apps (Listing): https://foothill.edu/astronomy/astrosims.html

Free Online Short Videos Collections:

List organized by topics: http://bit.ly/shortastronomyvideos

Astronomy Crash Course: http://www.pbs.og/show/crash-course-astronomy/
Free Open-source Planetarium Software for Computers: https://stellarium.org/

Center for Astronomy Education (excellent resources): https://www.as.arizona.edu/cae/

Join their AstroLrner Google Group/List-serve: https://www.as.arizona.edu/cae/community/

Sources of Astronomy Images for Instructors: http://bit.ly/astronomyimages

AAS Curated Content for Moving Astronomy Courses Online:

https://docs.google.com/document/d/1UPZVyq2U7GTC5I7R1TI_rsRDwu4FXt9aukGYXIeq60Q/edit

Guides for New Instructors and TA's:

O'Connell, R. "Facts of Life for New Teachers": http://dx.doi.org/10.3847/AER2007010
Bruning, D. "Teaching your First Astronomy Course":

https://www.oercommons.org/courseware/lesson/85674?__hub_id=27

U of Rochester TA Training: https://www.pas.rochester.edu/graduate/ta-training/notes.html

U of Washington: Tips for New TAs: https://sites.google.com/a/uw.edu/introductory-astronomy-clearinghouse/teaching-resources/tips-for-new-tas

Rica French's Extensive List of Teaching and Learning Tools:

https://www.miracosta.edu/home/rfrench/facultyshare/other.html

PhysPort Catalog of Concept Inventories (note astronomy follows physics):

 $\underline{https://www.physport.org/assessments/?Focus=137\&Focus=138\&Focus=135\&Focus=140}\\ \&Formats=78$

University of Nebraska Teaching Materials: https://astro.unl.edu/

Exemplary syllabus (Ana Larsen): https://canvas.uw.edu/courses/1063109/assignments/syllabus

WorldWide Telescope Virtual Observatory: http://worldwidetelescope.org/webclient/

NASA Viewspace (videos and interactives): https://viewspace.org/

Science Fiction Stories with Good Astronomy (organized by astro topic): http://bit.ly/astroscifi

This Day in Astronomical History (158 events): http://bit.ly/astrodates

Responding to Claims of Astronomical Pseudo-science: http://bit.ly/astropseudoscience

Full List of Guides to Educational Resources by A. Fraknoi: http://bit.ly/fraknoiguides

IStar Database of Astronomy Education Research: https://istardb.org/

Astronomy Education Review (subject index to the entire run of the journal):

https://aas.org/teach/subject-index-papers-astronomy-education-review-2001-2013

MERLOT database of instructional tools: https://www.merlot.org