EL CAMINO COLLEGE
SCHAUERMAN LIBRARY

A Selection of Recommended Web Sites for Research and/or Teaching

Mathematics and Natural Sciences
November 2010

Mathematics

- AMSER (Applied Math and Science Education Repository) http://amser.org

  AMSER is a portal of educational resources compiled especially for community and technical colleges, but free for anyone to use. *AMSER* is funded by the National Science Foundation. Copyright information is provided under the "About Us" link. The resources range from web pages to articles, presentations, and book excerpts. This site is intended for faculty use.

- The Math Forum/ Ask Dr. Math http://mathforum.org/dr.math/

  Ask Dr. Math is a question and answer service for math students and their teachers. A searchable archive is also available, as well as summaries of Frequently Asked Questions.

- Tools for Understanding: A Resource Guide for Extending Mathematical Understanding in Secondary Schools http://www2.ups.edu/community/tofu/

  Attempting to make the study of mathematics more meaningful and move beyond rote learning, this site is divided into three strands: Math Concepts, Integrated Lessons, and Journaling. Although the focus is on secondary school curriculum, much of the site's content may be applied to some community college math courses.

General Science

- Science Oxford Online http://www.scienceoxfordonline.com/

  Launched in 2009, the site aims to encourage interest in the sciences. Working with an attractive layout of 18 (and growing) pages of thumbnail images, the user can browse and click on images of interest to get to a short essay and related links. The images can also be filtered by topic, and a search feature is available.

Astronomy

- Herschel Space Observatory http://www.herschel.caltech.edu/

  This site is a portal to the telescope that studies the universe from the light of the "far- infrared and sub-millimeter portions of the spectrum." There are sections explaining the missions and the instruments, as well as news releases and public information sheets. Importantly, researchers gain access to information as it is generated from observations.

Biology

- Action Bioscience http://www.actionbioscience.org/

  Published by the American Institute of Biological Sciences, this free site is divided into several major areas: Biodiversity, Biotechnology, Environment, Evolution, Genomics, and New Frontiers. Within each section are original articles which have been peer-reviewed before publication. Articles by students have been reviewed and approved as well. Articles include bibliographies.

- NBII (National Biological Information Infrastructure)
  http://www.nbii.gov/portal/server.pt/community/nbii_home/236

  Administered by the Biological Informatics Office of the U.S. Geological Survey, working in partnership with many agencies and universities, the site offers access to data and other information on the nation's biological resources. The page is searchable or the user can browse under the tabs for specific resource information.

- Wildlife Disease Information Node NBII (National Biological Information Infrastructure)
  http://wildlifedisease.nbii.gov/

  This is a one-stop resource for accessing a variety of information on wildlife diseases, mortality, and related data, especially in the U.S.

- Exploring Life's Origins http://exploringorigins.org/

  Funded by the National Science Foundation to help "describe origins of life research and theories," the site is divided into three parts: A Timeline of Life's Evolution, Understanding the RNA World, and Building a Protocell.

Chemistry

- Chemistry@Nature.com Podcasts http://www.nature.com/chemistry/podcast.html

  "Every other month the *Nature* journals are publishing a free audio show, 'ChemPod', specifically for the chemistry community, from interviews with Nobel Prize winners, to discussions on nanotechnology research and much, much more..." Podcasts from 2006 to the present are available.

Environmental Sciences

- Atlas of Our Changing Environment http://na.unep.net/atlas/google.php

  This interactive atlas from UNEP (United Nations Environment Programme) shows natural and man-made changes to the planet over the last 30- 40 years. Click on the map, or search for a particular area, or choose from the drop- down menu. The material that accompanies the images comes from free books at the site. The scope is world-wide.

- Environmental Literacy Council http://www.enviroliteracy.org/index.php

  The Environmental Literacy Council is an independent, non-profit organization of scientists, economists, and educators whose mission is to provide science-based information on environmental issues. While some of the classroom materials are targeted specifically for K-12, the current scientific research content and data sources are useful at the community college level.

Physics

- Project TUVA: The Messenger Series http://research.microsoft.com/apps/tools/tuva/index.html#

  Sponsored by Microsoft, this web site uses Microsoft's enhanced video player to offer an acclaimed science lecture series, the 1964 Messenger Lectures, given by Richard Feynman at Cornell University before he won the Nobel Prize in Physics. The video player allows users to perform various tasks while viewing the videos, such as taking notes and interacting with hyperlinks to related Web content.

Zoology

- Audubon's *Birds of America* at the University of Pittsburgh http://digital.library.pitt.edu/a/audubon/

  Only 120 complete sets of *Birds of America* (1827 – 1838) are believed to exist. This site presents a digital version of the University of Pittsburgh's set. It is searchable (basic and advanced). Images can be enlarged. The text of Audubon's *Ornithological Biography* is also available.