AMSER Spotlight: eERL (electronic Environmental Resources Library)

One of AMSER's partners, ATEEC (the Advanced Technology Environmental Education Center) produces this robust collection of environmental resources – eERL. ATEEC is located on the campus of Scott Community College in Bettendorf, Iowa and is part of the Eastern Iowa Community College District. ATEEC was established in 1994 as an NSF Advanced Technology Education (ATE) Center of Excellence to advance environmental technology education through curriculum development, professional development, and program improvement in the nation's community colleges and secondary schools. ATEEC partnered with the Davenport Public Library, the Partnership for Environmental Technology Education and MIT's Laboratory for Energy and the Environment in creating eERL.

The focus of the eERL collection is environmental science and technology resource information. Resources range from classroom ready materials to regulatory information and global environmental issues and include such topics as: air quality, emergency preparedness and response, energy, and sustainability. eERL's team of expert community college educators and practitioners evaluate a wide variety of online materials, learning objects and other resources many of which have been added to AMSER. By using

AMSER's Advanced Search option users can search specifically for eERL resources. To do this from AMSER's home page go to Advanced Search (the link is directly under the search box in the upper right hand corner). Once you are on the Advanced Search page, it is easy to highlight eERL (one of several options) in the "Limits" area under the first header "Source". Next hit the search button and all available eERL resources currently in AMSER will be provided. Examples of some of the eERL resources recently added to AMSER include:

MIT Open CourseWare: Writing and the Environment Part of MIT's innovative OpenCourseWare Project, this site includes materials from an introductory expository writing course that focuses on the environment. Course materials provide suggested readings from naturalists, scientists, policy makers and others. The model assignments provided direct students to write from a variety of voices (personal, analytical, informative) and provide writing workshop guidelines along with a sample paper.

Teaching and Learning for a Sustainable Future This excellent site is a multimedia program for all educators on educating for a sustainable future. It is
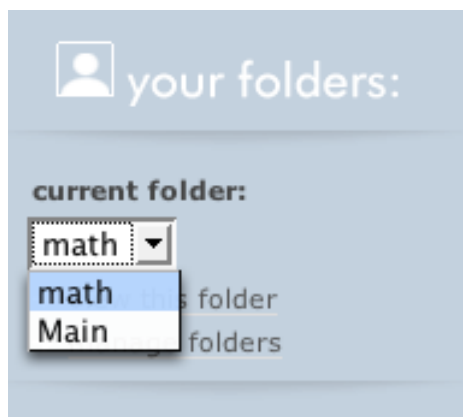
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an excellent resource for teachers, with learning activities for teaching sustainability in specific courses and throughout the curricula.

Cleanup!: A Hazardous Waste Cleanup Design Exercise Cleanup! is an educational software package that allows students to learn about hazardous waste site characterization and remediation. The software models a contamination scenario that students can experiment with and find solutions to the contamination problem.

With the vast number of Community College students and instructors involved in the environmental sciences and the rising public interest in environmental issues, incorporation of eERL's exceptional resources should prove an invaluable addition to AMSER's growing collection.

In this Issue...

Making AMSER Work for You: Using Folders

The folder feature in AMSER provides an easy-to-use system for storing, organizing and sharing resources discovered in the AMSER portal. The following three scenarios provide an overview of the features and functionality of the folder system – a URL is included with each scenario so that after reading the scenario you can go online and take a look at the folder and it's contents, description and notes.

Remember that you must be logged in to create AMSER folders. Once logged in you have access to your folders on the home page, the resources page (where you can browse resources) and from search result pages. Resources you discover on any of these pages can be can be added to your folders. But, you do not need to be logged in to view folders others share with you.

Scenario 1: Using Folders to create a set of resources for use in the classroom

Dr. Sarah Styles, who is teaching an introductory applied math class, wants to find resources that will help students understand how math is used in science, engineering and technology settings. The AMSER folder feature will serve as a component of one of Dr. Styles' weekly assignments allowing her to select and organize a set of resources to share with her students.

To begin, Dr. Styles logs onto AMSER and creates a new folder, by clicking on the manage folders link on the home page. The manage folder link brings her to a new page where she then types the name "math" into the Add New Folder text box provided in the upper right hand corner. She then returns to the home page and selects her new folder from the drop down list provided under the words "current folder" (see image below).

Dr. Styles types a query into the quick search box in the upper right hand corner of the site, just above words Your Folders. She uses the keywords "math", "science" and "technology" and discovers 113 sites. Any resources she feels are appropriate she adds to her new math folder by clicking on the "add to folder" option under each resource's description. She then opens the folder by clicking on the "view this folder" link and reviews the fifteen sites she's compiled. After some careful scrutiny, she chooses five sites which she feels cover an appropriate range of topics.

Although she will be giving the students information about their assignment in class and via email, she also decides to add some basic information about the assignment to the folder itself. Adding extra information to a folder, a description (or in this case information about an assignment), is done easily by

clicking on the phrase "add description" which appears right beside the name of the folder when the folder is open.

Finally, Dr. Styles marks the box "share this folder". This will make a URL appear under the folder's name. She can then cut and paste the URL into an email message for her students and send off their assignment.

To see Dr. Styles' folder, visit this URL:
http://amser.org/demo/math

Scenario 2: Using Folders to save resources for a research project

An undergraduate student, let's call him Max Mendleson, is gathering resources for a folder he's creating as he begins to work on a group project on wastewater and water quality. He is looking for some general resources to help provide him with an overview of the topic and possibly some sites that will help the group zero in on a specific issue or set of issues to focus their project on. He creates a folder which he names "water", selects it as his current folder on the home page and searches for items on water quality and waste water in the AMSER portal. He decides to add anything that seems relevant and then rearrange the items in the folder, putting more useful resources towards the top and resources he's unsure of towards the bottom of the

AMSER User's Corner

list. After he's completed a first round of searching and selecting, he opens his folder by clicking on the "view this folder" link. Once in his folder (see previous image), he rearranges records by using the "drag resource" button located to the right of each resource's title. He then clicks on "add note" to add any informal notes and reminders about what's most important to look at and what kinds of material he's found while looking at each resource. This will help him when he goes back later to start working in more depth on his paper. He checks the "share folder" box to create a URL for his water folder so he can share the resources he's found with his fellow students.

AMSER also allows resources to be moved from folder to folder using the click and drag method. If Max wished for a resource to be moved from the water folder to another folder, he could go to the "manage folders" page and click on a resource title in any folder and simply drag it to another folder.

To see Max's folder, visit this URL:
http://amser.org/demo/water

Do you know about a great collection of resources that you'd like to see us integrate into AMSER? Do you have a learning object or a handout that you know really works to help students truly understand a specific concept? If you have resources (large, small, or in-between) that you would like to see featured in AMSER, please e-mail us at resources@amser.org.

Dr. Jeanette Mowery joined the faculty of the MATC Biotechnology Program in 1994 and is currently serving as program director. Prior work experience included a research background in cell biology (cell adhesion molecules) and industrial experience in protein purification and product development at a start-up biotechnology company in San Antonio, Texas. Current professional interests include providing biotechnology workforce education for students with Bachelors degrees in the life sciences, using computer technology to support hands-on instruction in biotechnology, and incorporating bioinformatics and genomics/proteomics into biotechnology program courses.

A few of my favorite sites from AMSER:

DNA Applications
http://www.dnai.org/d/index.html

DNA Applications is a updated release from DNA Interactive -- the series of molecular biology features from the DNA Learning Center of the Cold Spring Harbor Lab. The above URL takes the viewer directly to the Applications section of the DNAi site and includes four modules: Human Identification, Recovering the Romanovs, Genes and Medicine, and Human Origins. Teachers will enjoy the fact that human identification section (think CSI) has been updated to reflect newer methods of DNA fingerprinting in use by the FBI today, although older methods are described as well.

The DNAi site as a whole is an extremely valuable resource, encompassing a range of fun and enlightening activities and animations, including a video tour of Genentech, the first biotechnology company, many animations of cellular processes (transcription, translation, etc.) and even a Game Boy simulation about the genetic code. Fun stuff here! Because the site is multilayered, it can take some time to explore all the avenues and branches, but it is well worth the effort. It is worth noting that In the resources section of the DNA Learning Center web site, there is even a video depicting a flyover of chromosome 11 (http://www.dnalc.org/ddnalc/resources/).

Bio-Link
http://www.bio-link.org

I am definitely biased but this is a great site for biotechnology workforce education. There is a clickable map with links to two year colleges with biotech programs and a curriculum clearinghouse for educators to use. Career scenarios are especially valuable in communicating to students what a biotechnology lab technician does on the job, since there is an enormous variety of different career avenues possible within the various industries that biotechnology serves.

The Origin of Life

http://www.vega.org.uk/video/programme/63

Vega is a UK based organization that is building a collection of lectures on scientific topics, including lectures from Nobel prize winners. Currently featured lectures include "The Origin of Life" by John Maynard Smith. There is a lot of great material here but it is in a longer lecture format, more for scholarly edification than for teaching technology.

The Research Collaboratory for Structural Bioinformatics

http://www.rcsb.org/pdb/home/home.do

Although the title identifies this resource as the Research Collaboratory of Structural Bioinformatics (RCSB), most of us refer to it as the Protein Data Bank or the PDB since the site is the home of the database of protein structure files used by scientists around the world. Although DNA often gets more press, proteins are the worker bees of molecular biology and they are featured on this site. For teaching about different proteins and how they work, the molecule of the month is a valuable and accessible educational resource for students at a variety of educational levels. The education section also offers tutorials on how to use the website, classroom posters, etc.

Would you like to be featured in a future Quarterly Update? We'd love to hear from you and learn about your favorite AMSER resources and how you've been using them in an educational setting. Please e-mail us at *amser@amser.org* for details.

Calendar of AMSER Events

Where in the world is AMSER?
We'll be at various conferences and meetings this year and we'd love to talk to you about what you're doing with digital resources and how we can make AMSER more useful to you and your students. Here's where we'll be and when:

October	November	
Advanced Technological Education (ATE) October 17-19, 2007 Washington, D.C.	**American Mathematical Association of Two-Year Colleges (AMATYC)** November 1-3, 2007 Minneapolis, Minnesota	**NSDL Annual Conference** November 6-8, 2007 Washington, D.C. **Conference on Information Technology (CIT)** November 11-14, 2007 Nashville, Tennessee
December	**March**	**April**
Coalition for Networked Information (CNI) December 10-11, 2007 Washington, D.C.	**League for Innovations** March 2-5, 2008 Denver, Colorado	**American Association of Community Colleges (AACC)** April 5-8, 2008 Philadelphia, Pennsylvania

For more AMSER events and links go to *http://www.amser.org/AMSER--Events*

Contact Information

Have a question? Want to share information about how you're using AMSER or other digital materials in your classroom? Please contact us!

Chanda Halderman, AMSER Outreach Coordinator
Internet Scout
UW - Madison, Computer Sciences Dept.
1210 West Dayton Street
Madison, WI 53706

608-265-8042
amser@amser.org

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