ELEMECML 4133/5133

Workshop: Secret Lives of "Stuff"

This workshop is sponsored by Curriculum & Instruction and the Center for Energy and Environmental Education, University of Northern Iowa. Support is provided by the Resource Enhancement and Protection Program (REAP) Conservation Education Program and UNI EPSCoR.

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Learning objectives—I can:

1. Reflect through writing, drawing, poems, and/or photos what matters most, and explain why this matters in terms of environmental health.*

2. Explain that everything comes from the earth, and give examples of natural resources and products made from those resources.*

3. Analyze and interpret data about product life cycles and communicate information and ideas about the stages of products.*

4. Plan individual and collective action to address environmental challenges. (At the end of the course, educators will receive a $100 stipend if you and your students complete a community engagement project and successfully complete the eLearning course.)

5. Identify at least two Iowa Core standards I can meet using newly introduced resources.

6. Develop a mini-unit, using resources introduced in this workshop. Then, teach the unit to help my students learn the concepts addressed in this course.

7. Share and collaborate with my colleagues.

*These learning objectives will be learning objectives for your students as well.
Course overview

In this course, you first will meet your colleagues, and then in Module 1 you will reflect on what matters most to you.

Next, activities will refresh your memory that all products come from natural resources, making us dependent on a healthy environment.

You will then learn about product life cycles and the causes of greenhouse gas emissions. In Module 4, you will generate ideas for your classroom’s student-driven community engagement project.

During the course, you will develop a mini-unit, and exchange ideas with your colleagues to help enhance each other’s units. Finally, you will teach your mini-unit, and help your students take action.

You are encouraged to collaborate with your colleagues. For example, if three teachers from the same school district teach the same students but different subject areas, you may work together on assignments. You must, however, each submit the assignments and state the names of your teacher team members. The assignment must outline which teachers are teaching which components of the day’s activities.

Below is a general overview of what to expect in the course.

**Step 1:** Complete all activities in Modules 1-4. Each of these modules requires you to participate in Discussions where you reflect on the module topics, then create plans (including lessons/activities/resources) for helping your students learn each module’s topic. The four plans developed during the four modules will likely become the core of your mini-unit.

**Step 2:** Complete all activities in Module 5. It focuses on fine-tuning your mini-unit. Note: You are welcome to work ahead on your Module 1-5 assignments.

**Step 3:** In Module 6, through the teaching of your mini-unit, you will help your students learn the content and take community action to protect the environment.

Also during Module 6, you will share with your colleagues in this course what you are thinking and learning, and share successes and challenges, both personally and professionally.

**Student Learning Standards:**

As you create your unit, you will be able to meet multiple standards/performance expectations. Feel free to select only one to two standards/performance expectations to help your students understand deeply.
A sampling of learning standards that can be met are found at this link: http://www.uni.edu/ceee/education/way-we-live/iowacore. Below are some examples.

- K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- 5-ESS3-1 Earth and Human Activity: Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.
- MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
- MS-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth’s systems.
- HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
- Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action (Political Science/Civic Literacy).
- Conduct short research projects that build knowledge about a topic (Writing, 3.7).
- Ask and answer questions about information from a speaker, offering appropriate elaboration and detail (Speaking and Listening, 3.3).
- Recognize that media and other influences affect personal, family, and community health (21st Century-Health Literacy).

Methodologies:
About 15% of the course is reading and reviewing lesson plans and other educational materials. Another 40% is interactive learning/discussion/planning/sharing, and about 45% is devoted to helping your students learn and take action.

Grades:
Discussions 1-6 are about 85% of your grade. Another 15% of your grade is a combination of quizzes, photo postings, and other assignments.

Instructional Materials
Most resources will be found on the course website at http://www.uni.edu/ceee/way-we-live/educatorresources

Below is a list of books you can purchase, access from your library, or you may watch and listen to through read-alouds of the books on video.

If you like the books, we recommend you access them through your library later in the semester when you teach your mini-unit, or purchase them for your classroom. If you are a 7th-12th grade educator, go forth with courage and use them. To learn effective strategies for using picture books with upper level students, skim this research study, especially pages 5-6: http://scholarship.rollins.edu/cgi/viewcontent.cgi?article=1005&context=mls

- Agatha’s Feather Bed, by Carmen Agra Deedy (Module 2)
- The Gift of Nothing, by Patrick McDonnell (Module 1)
- The Quiltmaker’s Gift, by Jeff Brumbeau (Module 1)

Local resources

Solid waste educators and naturalists are great local resources, and some may be willing to help with community engagement projects. They also offer field trip opportunities as well as in-class educational programs, and serve as local experts on environmental issues.

Solid waste educators can help your students learn about waste and landfills. To inquire about the solid waste agency contacts/educators in your area, go to http://www.iowadnr.gov/portals/idnr/uploads/waste/planareacontacts.pdf?amp;tabid=824

Most of Iowa’s 99 county conservation boards provide natural and cultural interpretive programming, and more than half of the counties have education/interpretive centers with naturalists dedicated to developing quality environmental educational programming. To see if your county has a naturalist, google “Your county” + County Conservation Board + Iowa. (Example: Adair County Conservation Board Iowa). In addition, some Park & Recreation Departments (such as Polk County) have environmental educators in their Park & Recreation Departments.

Online Course

This is an on-line course that requires students to be active participants in their learning. Students must log-in to eLearning every week from June 12-July 26 and complete course assignments. (If you work ahead, you may only need to log-in briefly to complete Steps 2 and 3 of Discussion posts. Contact your instructor if you have questions about this. If you won’t be able to log-in on a given week, contact your instructor BEFORE the fact.)
Students must be self-motivated and self-disciplined, and possess good time management skills.

**Technology Requirements**

Technologies that will be used for this course are:

- Internet access/connection – high speed connection recommended (not dial-up)
- Word Processor (i.e., MS Word)
- Microsoft Silverlight for Panopto videos.
- Digital camera (or camera and scanner)

If you have any technical difficulties, please contact the Continuing and Distance Education Technical Support Services using the contact information listed at the end of this syllabus.

**Evaluation**

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Communication and Support

E-mail. If you have a personal concern or question, you are encouraged to email me at susan.salterberg@uni.edu. I will make every effort to respond to students within a 48-hour window. Exceptions to this will be university holidays and weekends.

E-learning Announcements. The course announcements will include any changes or modifications to course materials or requirements. I will also use this tool to announce additional resources and/or activities that reflect topics we are studying and that might be of interest. If you would like for me to post an announcement about a co-curricular activity that might be of interest to others, please email me at susan.salterberg@uni.edu, and I will review the request and post in the announcements if relevant.

Discussion Board. I will monitor and grade the weekly discussions, but may not be actively involved unless guidance becomes necessary.

Netiquette for Discussions: Ten netiquette rules are found at http://albion.com/netiquette/corerules.html Read this page, and click on and read
Rule 1 and Rule 10. As described in Rule 1, always remember to address your colleagues and instructor in a respectful manner. There are no right or wrong answers to any of the posting discussions. You will be expected to agree and disagree in a civil and respectful manner. Avoid using texting “jargon” like “u” and “r.” Proper English spelling and grammar are required.

**Discussions/Keys to Good Posts:** Carefully review the Discussion Rubrics for each Discussion Assignment. Example Discussions are also included with several of the Discussions. In addition to the information in the rubrics, below are a few tips for good posts:

1. Incorporate examples from the readings and/or online course sources. If you make a general statement, support it with a specific example. If you critique a post, support your reply with a specific example.

2. Think beyond what the videos, lesson plans and other resources may have stated. Do not limit your interpretations/analyses to what the authors of the texts or narrators of films state. Draw upon your own life experiences and other university courses for ideas.

3. Ask for clarification, if needed.

**Grading response time.** You will have immediate feedback on your quiz grades, except the Pick 5 survey (found in Module 1) and the course evaluation (found in Module 6). Those points need to be manually entered in and you will receive all available points if you complete these assignments. Discussion board postings and other assignments will be graded and posted as soon as possible.

**Technical Support.** If you experience any technical problem do **not** contact the instructor. Please contact the Office of Continuing and Distance Education at 319-273-7740 or cesp-consult@uni.edu. Support hours are available Monday – Thursday 8am – 9pm and Friday 8am – 5pm.