

Building Training Modules for Ecosystem Modeling

Zoology 535, Spring 2008

General idea: Students from Zoo 535 contribute to an open-source library of teaching units for ecosystem modeling. Each teaching unit, or module, will be designed to help students understand an important point about ecosystem modeling.

Projects for Small Teams (2-3 people)

Select a "nugget" -- a small but important point, or insight, from ecosystem modeling, and develop a training module to help students learn and explore the topic.

The module should be similar to (or simpler than) one of the computer exercises from Zoo 535. A module should include:

Short handout with background information and key references

Open-source computer programs

"Instructor's Guide":

What is the goal?

What are the steps?

What background do the students need to carry out the exercise?

What should the students take away from the exercise?

This should be a team project by 2 or 3 people. If there are more than 3, please explain why you want to do a big project, and why it cannot be decomposed into smaller projects of 2 or 3 people.

We will try to form the teams by self-organization, however I will help if we run into bottlenecks.

Sources of ideas:

Existing exercises for Zoo535 -- modify one of these to make it better, or simpler; or use it as the starting point for a different exercise.

Teaching Modules developed by students in past years: see examples under “Teaching Modules by Students” on <http://limnology.wisc.edu/courses/zoo535/>

An example from the literature (often these will have to be simplified substantially to make a good class exercise)

Simple models of ecosystem management or collective problem solving: See the Peterson et al. paper on our reading list, or <http://www.consecol.org/vol3/iss2/art4>, or talk to Steve about sources of information for building artificial social-ecological systems on the computer.

Books by John Harte: Two books full of short, insightful problems in ecosystem modeling are *Consider a Spherical Cow* and *Consider a Cylindrical Cow*, both by John Harte (the cow honors his Wisconsin heritage). Excerpts are posted on the Internet. The secure class projects directory is

<http://limnology.wisc.edu/courses/zoo535/classprojects/>

(there is also a link from the main course page)

User name: zoo535
password: classprojects