Curriculum Development Workshop

Model Exercise #1: Linking Models

July 17, 2005: 3:30-6:30 p.m.

The purpose of this exercise is to qualitatively examine issues in linking models between two specific disciplines. You have been assigned into small groups that consist of faculty representatives from two different disciplines, and additional faculty and student participants. During this exercise, your group will focus on either 1) an existing or possible ‘real-world’ application for linking models for the two disciplines, or 2) design a model exercise to be used for educational purposes to show how models from the two disciplines could be linked. Graduate students are responsible for taking notes during the discussion (Task 1) and reporting back to the workshop participants (Task 2).

Task 1: Discuss within groups (3:30-4:30 p.m.)

Groups are to discuss the following questions and post the results of this discussion on flip chart paper:

a. How could the two disciplines represented within this group be linked in a modeling exercise?
b. Provide an example(s) of a possible real-world need for linking these models
c. What are the limitations of linking these models (e.g., scale, uncertainty, inputs/outputs, etc.)?
d. What constraints exist for each of the models, and for the combined models?
e. Are there other questions or issues that are of importance?

Break: View posted results (4:30-4:45 p.m.)

All participants should wander around the room to view the posted results from the various groups.
**Task 2: Present summary of discussion** (4:45 p.m. – 5:45 p.m.)

Graduate students will present a 5-minute summary of each group’s discussion, explaining points and notes on the flip charts. After the students have presented, faculty will add any additional comments, and the groups will field a short question and answer period.

**Task 3: Group discussion of key observations** (5:45-6:30 p.m.)

The group will summarize a) common themes that came up during the group presentations; b) key points that should be noted in a course or textbook on interdisciplinary modeling; c) key overall observations from the exercise; and d) any other items that should be discussed.

Tentative groups (may change; final groups will be announced at workshop):

<table>
<thead>
<tr>
<th>Donald DeAngelis (ecological systems)</th>
<th>John Braden (economics)</th>
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<tbody>
<tr>
<td>Glenn Tootle (hydrologic/watershed)</td>
<td>Greg Pohll (flow and transport)</td>
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<td>Stephen Jenkins</td>
<td>Franco Biondi</td>
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<tr>
<td>Arek Fristensky (3)</td>
<td>Shane Rotter (3)</td>
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<td>Rosemary Carroll (3)</td>
<td>Jorge Arufe (3)</td>
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<tr>
<td>Karin Peternel (3)</td>
<td>Min-Yang Lee (1)</td>
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<tr>
<td>Stephen Andrews (1)</td>
<td>Xiaolin Ren (1)</td>
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<td>Clinton Davis (1)</td>
<td>Andrew Knust (1)</td>
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<thead>
<tr>
<th>Mark Grismer (groundwater/surface water interaction)</th>
<th>Vanda Grubisic (atmospheric)</th>
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<tbody>
<tr>
<td>Pete Loucks (water resources systems)</td>
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<tr>
<td>Rick Susfalk</td>
<td>Sudeep Chandra</td>
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<tr>
<td>Anna Makowski (3)</td>
<td>Geoff Schladow</td>
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<tr>
<td>Brian Billings (3)</td>
<td>Heidi Pethybridge (3)</td>
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<td>Justin Bartlett (1)</td>
<td>Kristen Hychka (3)</td>
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<tr>
<td>Angela Bolton (1)</td>
<td>Lee Guethle (1)</td>
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<td>Thomas Prescott (1)</td>
<td>Jeff Sandelin (1)</td>
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| John Warwick (water quality)                        |                            |
| Gayle Dana (snow hydrology)                         |                            |
| George Leavesley                                    |                            |
| Robert Eckard (3)                                   |                            |
| Jill Schlanser (3)                                  |                            |
| Ned Dochtermann (3)                                 |                            |
| Laura DiPalermo (1)                                 |                            |
| Peter Hartsough (1)                                 |                            |

This model exercise is worth 50 points for students.