Course Format:
- Meets 1 day a week for 4 hours
- Students present readings from the literature that form the basis of the modeling project for the week
- Students construct models and then run experiments
- Independent projects at the end of the semester allow each student to explore his or her own interests

Student Responses to the Course
In the end of class questionnaire, students reported that they felt the course was highly effective in teaching the basics of system dynamics and how systems could be modeled, that they found the iconographical box modeling software developed by lise Systems, Inc. to teach students the fundamentals of dynamical systems modeling.

The course has been taught four times and has been received enthusiastically by students, who reported not only that they enjoyed learning the process of modeling, but also that they had a newfound appreciation for the role of mathematics in Earth science and intended to enroll in more math courses in the future.

Responses to the question how you would describe the impact of this course on your general understanding of math in geology? students said:
- "Before I took this course I had no idea how people knew what they knew about systems with large scales and topography, or too large to facilitate construction of physical models (e.g., faulting on the San Andreas or climate change)." One student wrote: "The models can be simple but still give a lot of information. This class has been so useful in making geologic problems accessible." Another student added: "Highly effective, I now understand what modeling a system consists of and can think about such relations mathematically much better than I could six months ago."

In response to the question 'Did the course have any impact on your understanding of the usefulness of math in geology?' students said:
- "Yes, this is one of the only courses which has done so."
- "Yes, it had a huge impact. This course showed me that calculus is very important in the study of geology. Because of this class I'm planning on taking calculus."
- "Iea - now I wish I'd taken more math. I may take some next year but haven't had any since freshman year. For the practical applications such as this you have to be able to truly understand it, not just do it."