

COURSE ANNOUNCEMENT

FALL 2008

MAT 451

Mathematical Modeling

Instructor:	Dieter Armbruster
Time:	4:15 - 5:30 Tuesday & Thursday
Location:	PSA 108
Class Number:	75983
Credits:	3

Course Description: This course will be a modeling course based entirely on a problem from Intel Corporation. We will collaborate with Shamin Shirodkar from Intel's Chandler facilities. He will present us with an industrial problem on modeling the introduction of a new product into the marketplace and the associated problems of ramping up and down production facilities.

The mathematical themes that we are covering are

- Ordinary Differential Equations
- Optimization
- Sensitivity analysis and control
- Data Analysis
- Probability
- Simulations

The course will consist of brainstorm and discussion sessions, lectures by the instructor as well as outside experts, and feedback and reporting sessions. There will be no homework but I expect that students will be continuously involved throughout the semester in written and oral presentations and the development of computational models.

Target Audience: Juniors, Seniors and beginning graduate students in mathematics, physics, engineering and other sciences. The format of the course is fluid and can be adjusted to the student's needs and interests.

Prerequisites: MAT 274 and 342, basic statistics/probability, and some computing skills.

Textbook: none.

For more information contact: Dieter Armbruster, PSA 821, Phone: 965-5441,
e-mail: armbruster@asu.edu.