

**MATH 377/575**  
**Mathematical Models (3 units)**

**Course Outline**

<b>Topics</b>	<b># of Weeks</b>
<b>Mathematical Models</b>	1.0
<b>Arms Races</b> Supplemental material in differential equations	2.5
<b>Ecological Models:</b> Single species COMAP Module on Leslie Models Interacting Species	3.5
<b>Probability</b>	0.5
<b>Markov Processes</b>	1.5
<b>Simulation</b>	1.0
<b>Linear Programming and Sensitivity Analysis</b>	2.0
<b>Student Presentations</b>	1.0
<b>Exams</b>	1.0

Textbooks: An Introduction to Mathematical Models in the Social and Life Sciences,  
by Michael Olinick (out of print - used copies available On Line, and several  
copies on reserve in Cook Library)

COMAP Modules will be distributed as needed

Adopted: March, 2007