



New Graduate Course at ASU for Secondary Math and Science Teachers

MTE 598: SLN 89337
Exploration of Fundamental Concepts of
Mathematical Modeling of Biological Systems:
A Course for Secondary Math and Science Teachers

Course #: MTE 598 SLN 89337

When: Wednesdays (beginning 8/22/2007) from 4:30 to 7:20 p.m.

Where: University Center, 202C (1130 E. University Dr., Suite 202, Tempe, AZ 85281)

Course Description: In this course students will be engaged in explorations that introduce them to current research questions in mathematical biology. The course will provide teachers experience in using ideas of rate of change and function to model phenomena in biological systems. Students will be supported in carrying out a small scale research project that will involve their defining a relevant research question, collecting and analyzing data, making predictions, etc. The knowledge and processes that you learn in this course are applicable to your teaching of secondary math and science.

About the Instructor: Carlos Castillo-Chavez is a University Regents and a Joaquin Bustoz Jr. Professor at ASU. His research program puts emphasis on the role of dynamic social landscapes on disease evolution. Most recently, research efforts focus on problems at the interface of homeland security and disease invasions (natural or deliberate) and on models for the spread of social "diseases" like alcoholism and ecstasy. Work on models for the spread of extreme ideologies and their impact on cultural norms is also an area where his group conducts active research.

Carlos Castillo-Chavez is the Executive Director of two institutes: the Mathematical and Theoretical Biology Institute or MTBI which focuses on providing research opportunities at the interface of the biological, computational and mathematical sciences from the undergraduate to the graduate and postdoctoral levels and SUMS (Strengthening the Understanding of Mathematics and Science) which provides successful university experiences for students from economically disadvantaged groups in order to enhance their prospects for future academic success.

► This 3.0 credit-hour course may be applied to several graduate programs. Graduate students seeking a Master of Natural Science degree should consult your faculty advisor to ensure that the course can be applied toward your program of study.