

Spring 2020

GRADUATE COURSE ANNOUNCEMENT

<i>Course title</i>	<b>BIOMATHEMATICS SEMINAR 2</b>
<i>Course number</i>	MAP 6488 (Section 23427)
<i>Schedule, Room</i>	<b>MWF 7</b> , Lit 219
<i>Instructor</i>	Maia Martcheva maia@ufl.edu <a href="http://people.class.ufl.edu/maia">http://people.class.ufl.edu/maia</a>
<i>Main theme</i>	<b>Advanced topics in Mathematical Epidemiology</b>

*Syllabus:*

- (1) Analysis of complex epidemic ODE models.
- (2) Multi-strain disease dynamics.
- (3) Control Strategies
- (4) Ecological Context of Epidemiology
- (5) Zoonotic diseases and non-autonomous models
- (6) Multiscale ODE models
- (7) Discrete models

*Prerequisites:* Biomath Seminar 1.

**Requirements:**

- (1) Students will be expected to make presentations. In particular, each student will present a paper of choice. Alternatively, students may make a presentation on their current research projects if related to epidemiology.
- (2) There will be some homework problems assigned which will be completed in teams and graded by another team.
- (3) Students will be expected to attend class.
- (4) We will use Mathematica and Matlab for computation. Having access to the software may help you learn more in the class.

*Grading:* Grades will be based on (1) Attendance; (2) Presentation; (3) Homework.