

HW #3 (MATH 721)

Due: 2:30pm on WEDS, 5 Oct 2016

Instructions: Please turn in a printed copy of your homework. Students are encouraged to **work together, ask the instructor for help, consult any available resources, and collaborate on problems via Piazza**. However, you must **write up your solutions based on your own understanding**. Supplementary electronic files (e.g. R scripts or wxMaxima files) should be emailed to the instructor as a single file (e.g. one R script, or multiple files in a ZIP file) prior to class with file name format LASTNAME-HWX.ZIP.

Reading: Tien, J.H. & Earn, D.J.D. Multiple Transmission Pathways and Disease Dynamics in a Waterborne Pathogen Model. *Bull. Math. Biol.* (2010) 72: 1506. doi:10.1007/s11538-010-9507-6

Exercises:

1) Please send me **2 questions** about the reading above **by 9pm on Tuesday, Oct 4**. We will discuss the paper and selected questions on Wednesday.

- 2) 6.4.6,
- 3) 6.4.7,
- 4) 6.5.9,
- 5) 7.2.10

Optional Exercises (only the above problems will count towards your assignment grade):

- 6) 6.4.4,
- 7) 6.4.5,
- 8) 6.5.7,
- 9) 6.5.20,
- 10) 7.3.1.nn