

MATH 207 Math Honors Seminar
Dr. Boersma
Spring 2017

- Goals:** We will investigate the mathematics of iterations: the process of repeating the same operation over and over. We will start relatively simple (the iteration of linear functions) and progress to more complicated and challenging scenarios. This is not supposed to be a course on reading mathematical sources to determine what is known about the material. Rather, it is supposed to be a course where we work as a team to understand the interesting mathematics which underlies the topic under consideration. For us, we will be *discovering* the mathematics! We will follow through on the questions we feel are most interesting. We will make our own definitions and state our own conjectures and theorems. In essence, **we will do mathematics!**
- Office:** Bouillon 108E, phone: 963-1395, email stuart.boersma@cwu.edu. Office hours will be announced in class shortly. You may of course drop by anytime. If I'm not busy I'll be glad to talk with you.

**Required
Materials**

1. The desire to participate in mathematical discovery and experimentation.

- Canvas** We will be using the course management system *Canvas* in order to keep our discussions alive and moving forward during the week in between our face-to-face meetings. Canvas can be accessed through MyCWU. If you need any help with this you can contact the CWU helpdesk or some talk to me. Your first assignments should be available now.

- Presentation** You are required to give one 10 minute presentation. Your presentation may cover one of the following, or similar, topic:

- Interesting use of technology used to investigate an iterative process
- Explaining a creative way to represent the behavior of an iterative process
- An interesting result you discovered and, possibly, proved.

If you have an idea for a presentation, please come talk to me so I can approve it. I would also like to meet with you before you give your presentation so you can show me what you plan to present to the class.

- Your Grade:** Your final grade in this course will depend on attendance, class participation, participation in the online discussions, and . Please come to class prepared and have a few ideas ready to share with others. If you miss a day, you may be required to hand in written "make-up" work.

- Attendance: 40%
- Online discussions: 40%
- Presentation: 20%