

Tentative schedule, Week One

Although there may be slight deviation from the schedule as listed below (depending on how quickly we work through various problem sets and how involved our discussions get), the following should give you a rough idea of what we'll be doing for the first week of the program.

• **Monday, June 8th.**

8:45: Meet up at the dorm to go to Owen 229, your home away from home away from home this summer

9:00 – 9:45ish: Complete paperwork and human resources whatnot

9:45 – 11:00ish: Get OneCards and take a campus tour

11:00 – 11:30ish: Introduction to the program, overview of activities for the summer, Q 'n' A

11:30 – 12:00ish: The basics of set theory and notation

12:00 – 1:00: Graph theory problem set 1

1:00 – 2:15: Lunch break!

2:15 – 4:00: Introduction to open problems in fractal geometry, Graph theory problem set 1 (continued, time permitting)

4:00: Break for the day!

• **Tuesday, June 9th.**

9:00 – 10:00: Introduction to fractals

10:00 – 11:00: Graph theory problem sets 1 (as needed) and 2

11:00 – 12:00: Metric geometry

12:00 – 1:00: Lunch break!

1:00 – 2:30: Graph theory problem set 2

2:30 – 4:00: Introduction to open problems in graph theory and geometry

4:00: Break for the day! (As homework you will be asked to find definitions and examples for a large number of graph theoretical concepts, and be prepared to present these definitions and examples on Wednesday.)

• **Wednesday, June 10th.**

9:00 – 10:30: Introduction to *Mathematica*

10:30 – 12:00: Student presentations of graph theoretical definitions and examples

12:00 – 1:00: Lunch break!

1:00 – 3:00: Student presentations, continued

3:00 – 4:00: \LaTeX discussion, and exhortation to download, install, and play with the software.

4:00: Break for the day!

• **Thursday, June 11th.**

9:00 – 10:30: Graph theory problem set 3

10:30 – 12:00: Introduction to fractal dimension

12:00 – 1:00 Lunch break!

1:00 – 2:00: Introduction to cellular automata

2:00 – 4:00: Graph theory problem sets 3 and 4

4:00: Break for the day!

• **Friday, June 12th.**

9:00 – 10:30ish: “In-class” \LaTeX exercise

10:30 – 1:00: Take a long lunch, you’ve earned it!

1:00 – 2:00: Dimension, with overlap

2:00: Break for the day!

Next week will feature group theory, differential equations on fractals, and a boatload more open problems from graph theory. Stay tuned!