Schedule

Day 1
9:30-10:30 am: Introduction to Graph Theory and Applications of Graphs
We will review the basics of graph theory and its application.
10:30-10:45 am: Break
10:45 am-11:30 pm: Structure of Real-World Graphs
We will study properties of real-world graphs.
11:30am-12:30 pm: Lunch Break
12:30-1:30 pm: Structure of Real-World Graphs
We will study how real-world graphs are formed.
1:30-2:00 pm: Q&A

Day 2
9:30-10:30 am: Graph Algorithms
We will learn about several fundamental graph algorithms.
10:30-10:45 am: Break
10:45-11:30 am: Graph Algorithms
We will learn about several fundamental graph algorithms.
11:30am-12:30pm: Lunch Break
12:30-1:30pm: Demo and Exercises with Graph Processing Software (NetworkX)
We will learn how to use a popular graph processing software.
1:30-2:00 pm: Q&A

Day 3
9:30-10:30 am: Machine Learning on Graphs
We will study methods for Web search.
10:30-10:45 am: Break
10:45-11:30 am: Machine Learning on Graphs
We will learn about how to do classification and prediction on graphs.
11:30am-12:30 pm: Lunch Break
12:30pm-1:30 pm: Machine Learning on Graphs
We will see case studies of using machine learning on graphs.
1:30-2:00 pm: Q&A

Day 4
9:30-10:45 am: Large-Scale Graph Processing Frameworks
We will learn about frameworks for writing fast code for processing graphs.
10:45-11:00 am: Break
11:00-11:45 am: Problem Clinic
We will discuss graph-related problems in small groups.
11:45 am-12:45 pm: Lunch Break
12:45-1:30 pm: Problem Clinic

Each group will report to the class.
1:30-2:00 pm: Q&As