MATH 205 — Mathematical Concepts and Structures II
The software *Tinkerplots*, 2nd Edition, is required for students in this course. It can be downloaded from this site: https://www.tinkerplots.com/get

**Chapter 7. Ratio and proportional relationships**

7.1 Motivating and Defining Ratio and Proportional Relationships (Meaning and representations of Rate, Ratio, Proportion)  
0.5 week

7.2 Solving Proportion Problems by Reasoning with Multiplication and Division (Solving proportion problems)  
1 week

7.3 Unit Rates and the Values of a Ratio (Unit rates and Scale factors)  
1 week

7.5 Percent Revisited: Percent Increase and Decrease (Solving Percent Problems)  
1.5 weeks

**Chapter 9. Algebra**

9.2 Mathematical Expressions with Variables  
0.5 week

9.4 Solving Equations  
0.5 week

9.5 Solving Algebra Word Problems with Strip Diagrams and with Algebra  
1 week

9.6 Sequences  
1 week

9.7 Functions  
0.5 week

9.8 Linear Functions  
1 week

**Chapter 15. Statistics**

15.1 Formulating Statistical Questions, Gathering Data, and Using Samples (Intro to Statistics: Formulating Questions, Designing Investigations, and Gathering Data)  
1.5 weeks

15.2 Displaying Data and Interpreting Data Displays  
1 week

15.3 The Center of Data: Mean, Median, and Mode (Central Measures)  
1.5 weeks

15.4 Summarizing, Describing, and Comparing Data Distributions (Weighted mean, Data Distributions: Summarizing, Describing, and Comparing)  
1 week

NOTE:
1. There are two tests implemented during the semester, in total of one week.
2. Other topics may be included if time permits.

April, 2018