***Instruction Outline of Topics to be Covered for MAC 1105***

**The following is a list of how I (Amy Kincade) organize my College Algebra Courses. I hope these suggestions will be helpful.**

CHAPTER 1- Equations and Inequalities (Quiz/Assignment)

Sections 1.5 & 1.6 only

Do not spend very much time on chapter 1. I cover it as one class or less review.

I give a take home quiz/assignment that focusses on 1.5 & 1.6.

The only new material is in 1.6 (absolute value inequalities).

CHAPTER 2- Graphs (1 Exam)

Sections 2.1 – 2.5

This chapter is mostly review as well. The new topics include circles (2.4) and variation (2.5). I spend about a week and a half on this chapter.

CHAPTER 4- Linear and Quadratic Functions (1 Exam)

Sections 4.1, 4.3, 4.4 (overview 4.2)

I prefer to teach chapter 4 before chapter 3. I feel that a good understanding of parabolas strengthens the foundation for students before the family of functions is introduced. I often have to teach so many of the chapter 4 concepts to help the students understand chapter 3. When I taught chapter 3 first, chapter 4 felt like a review. I spend about a week and a half on this chapter.

CHAPTER 3- Functions and Their Graphs (1 Exam)

Sections 3.1 – 3.6

This chapter will take about 1.5 to 2 weeks. The students need extra attention to detail to help them connect the all the aspects of functions and their graphs. I find that the students have a deeper understanding of chapter 3 if chapter 4 is presented first.

CHAPTER 6- Exponential and Logarithmic Functions (2 Exams)

Sections 6.1 – 6.8

This chapter is huge in size and amount of material. You need to spend extra time with it. I break it down into two exams: 6.1 – 6.4 (graphing parts only) and 6.5 – 6.8 (equations and applications). I spend at least three weeks on this chapter. If I can manage longer, I will.

***I usually combine Chapters 5 and 8 into one exam. I spend two weeks here if I have the time.***

CHAPTER 5- Polynomial and Rational Functions

Sections 5.1 – 5.3

I leave chapters 5 and 8 until the end. If I am falling behind schedule, then this is easier material for the students to learn at a faster rate or on their own. I am running short of time, I will only overview 5.3 (oblique asymptotes).

CHAPTER 8- Systems of Equations and Inequalities

Sections 8.1, 8.6, 8.7

This is a good material to teach at the end of the semester. It can be lengthy to do full example, but the students have some prerequisite knowledge of the main ideas involved.

***MAC 1105 – College Algebra 9th ed. (red book)***

***Assignments***

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| ***Section*** | ***Suggested Problems*** |
|  | ***Chapter 1 – Absolute Value Equations and Inequalities*** |
| **1.5** | 11-16, 23, 25, 27, 31, 33, 35, 37, 39-52, 53, 55, 57, 59, 63, 67, 71, 75, 77 |
| **1.6** | 1-7, 9, 11, 13, 19, 21, 23, 25, 31, 35, 39, 41, 47, 53, 55 |
| **Review** | 1 -31, 39 – 45, 47 – 77 odds |
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|  | ***Chapter 2 – Graphs (lines and variation)*** |
| **2.1** | 15, 17, 19, 23, 29, 35, 39, 41, 45, 59 |
| **2.2** | 11, 13, 15, 39, 41, 43, 45, 47, 51-69 odd |
| **2.3** | 11,13, 15, 17, 23, 25, 27, 41, 43, 45, 47, 49, 57, 59, 65, 71, 73, 79, 115, 103-106 |
| **2.4** | 1 – 33 odds |
| **2.5** | 3-14, 15, 17, 23, 25, 31, 37 |
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|  | ***Chapter 3 -- Functions*** |
| **3.1** | 15-37 odd, 39, 41, 47-79 odd |
| **3.2** | 1-9, 11-21, 23, 25 |
| **3.3** | 1-28, 33, 35, 45, 53, 57 |
| **3.4** | 25, 29, 31, 33, 41-44 |
| **3.5** | 1, 3, 5, 7-26, 35, 37, 39, 41, 65, 67 |
| **3.6** | 1-7, 14 |
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|  | ***Chapter 4 – Linear and Quadratic Functions*** |
| **4.1** | 13, 15, 17, 21, 23, 25, 29, 37, 38, 41, 43, 47, 49 |
| **4.3** | 1-10, 11-18, 19, 21, 27, 35, 39, 41, 45, 49, 53-58, 77, 81, 83 |
| **4.4** | 3, 5, 7, 9, 11, 17 |
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|  | ***Chapter 6 – Logarithms and Exponents*** |
| **6.1** | 1-13 odd, 21-27 odd, 29, 33, 41, 45-51 odd, 59, 65, 69 |
| **6.2** | 1-16, 17-22, 31-39 odd, 41-46, 47-57 odd, 59, 63, 65, 88, 90 |
| **6.3** | 1-10, 11, 13, 29-36, 37, 39, 41, 43, 45, 47, 53, 55, 57, 59, 61, 67, 69, 75, 79, 85, 95, 97, 99 |
| **6.4** | 1-6, 9, 13, 17, 19, 21, 23, 25-36, 37-47 odd, 63-70, 71, 73, 75, 87-105 odd, 117, 121 |
| **6.5** | 1-6, 7-17 odd, 23-29 odd, 31-39 odd, 51, 53, 55, 57, 63, 65-72, 73, 75, 77, 79, 81, 83 |
| **6.6** | 9, 14, 15, 17, 31, 35, 37, 43, 45, 49,63, 75, 81 |
| **6.7** | 1, 3, 5, 11, 13, 21, 31, 35, 39, 43, 51 |
| **6.8** | 1, 3, 5, 7, 11, 13, 15, 23, 25 |
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|  | ***Chapter 5 – Rational Functions*** |
| **5.1** | 1-22, 37-43 odd, 45, 47, 51, 53, 55 |
| **5.2** | 1-21 odd, 23-28, 41, 43, 45, 47 |
| **5.3** | 7, 11, 13, 25, 45-48, 49, 54, 55 |
| **5.4** | 5 – 37 odd |
| **5.5** | 11-63 odd |
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|  | ***Chapter 8 – Systems of Equations*** |
| **8.1** | 1-6, 7, 9, 13, 17, 19, 23, 29, 33 |
| **8.6** | 5-29 odd, 55-67 odd, 71, 83, 85 |
| **8.7** | 11, 13, 15, 23-29 odd, 43-49 odd, 53-56, 57, 59 |