Math Study Skills

Chapters 1 & 2
There are many reasons why we are not successful in math (yet):

- Are you good in other subjects, just not math?
- Did something happen in the past to turn you off from math?
- Do you have anxiety in finishing all your college courses, not just math?
- Do you have anxiety taking exams?
- Do any of these apply to you?
What you can do to lessen your math anxiety

- Math anxiety is a **changeable** habit pattern
- A lack in success in math is rarely because of a lack of intelligence
- The key is not to work harder, but to have better habits
- If your current habits are not working for you, then we can develop new habits
- How you approach math is far more important than how “smart” you are
- Even if you feel stuck for time, you can improve your approach to math
Exercise – your current study habits

- Complete the paragraph on “My approach to homework and studying in math class is…” (5 minutes)
- Include how often you study
- How long you study
- How you begin and end the session
- How do you prepare for exams
- What else is a factor (work, family, environment)
- Then list “The things I do that I know are effective…” (3 minutes)
- Then list “The things I don’t do that I know I should…” (3 minutes)
Overview of Math Study Skills topics

- Ch. 2: What makes math different?
- Ch. 3: Learning styles
- Ch. 4: Math anxiety
- Ch. 5: Managing your time
- Ch. 6: Your class notebook
- Ch. 7: Your textbook and your homework
- Ch. 8: Class time and note taking
- Ch. 9: Retention and general study strategies
- Ch. 10: Test Taking
General principles of success

- Steven Covey – succeeding is “an in-depth study of the obvious”.
- Some things you will read will seem obvious to you.
- But, if you knew it, are you using it?
- Success requires change and action, not just knowledge.
Exercise – Where should you focus?

- Look at the nine Math Study Skills topics (pg 4-6)
- List three of the nine as the ones you most want to work on
- Include your reasons why
- 5 minutes
Chapter 2 – what makes math different

- In your own words, if you think math is tough, explain why.
- If you don’t think math is tough, then explain what you want to get out of this class
- 5 minutes
Math is not LIKE a foreign language

- Math IS a foreign language, like French or HTML
- It has its own vocabulary, rules, and symbols
- What are some ways people use to learn French?
  - Note cards, dictionaries, speaking translations out loud
  - You can do the same thing in math
- Unlike French, though, speaking the language correctly isn’t the end result
- In math, the end result is to understand the concepts and develop the skills needed to solve problems
- In most college math courses, professors don’t have the time to teach math as a foreign language course
Exercise – Checking out vocabulary

- Write down these five words (from math) and then write what YOU think they mean:
  - Product
  - Difference
  - Function
  - Argument
  - Factor

7 minutes
Math is a skill-based subject

- It must be practiced repeatedly
- It is a lot like hitting golf balls at a driving range
- Many times, students understand what the teacher is writing on the board in class, but “lose it” when they go home to do their homework
- It is important to practice what you heard in class, as soon as you can. You must act on what you have heard
- Spread out your learning. Do a little every day, instead of a lot at once
- This is especially important if you have job, family, etc
College course structure

- It is stressed repeatedly in my meetings with my dean that college students are adults, and are to be treated as such.
- Most instructors will not monitor your performance.
- The pace is faster, and more responsibility is placed on you.
- This makes effective time management, self-discipline, and making your education a priority so important.
- Time management is covered in Chapter 5.
- Good news - MTH 0906 is designed to be “transitional”
Attitudes towards math

- There is no truth that people *must* struggle with math
- Also no truth that there are gender differences with math
- Math is used in more things than you may think
- Most students understand that negative attitudes are harmful, but do not always understand how to defeat the negative attitudes
- Chapter 4 deals with math anxiety
- Building math skills is important – but changing math attitudes is actually *more* important
A student’s math background

- In math, topics build on one another – Chapter 2 depends on Chapter 1, etc
- What if you get overwhelmed?
- Talk to a counselor, get into a pre-requisite course
- Get a tutor
- Work with a friend, not copy from a friend
- What if you think you are over-prepared for this class?
- Talk to your counselor
Quality of instruction

- I am the best math teacher in the world
- Seriously, as night students, you don’t have many choices
- If you don’t feel this style of class (lecture) is working for you, and daytime classes are an option, you can talk to a counselor about entering one of the lab courses
- If this is not an option, then review the syllabus, particularly the expectations of the course
- Know what you are getting into
- Knowing how college differs from high school will help you not only in math, but in all your college courses
Exercise, Finding Professor Right

- List three qualities you think are most important for an instructor to have, and why
- 5 minutes