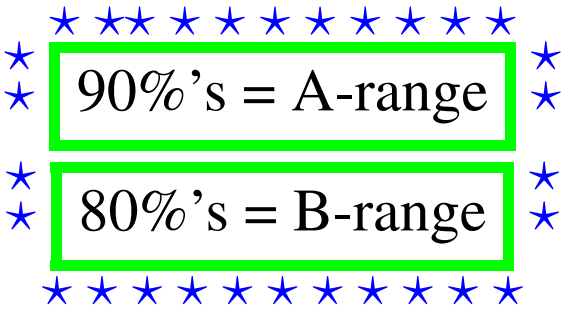
Welcome to class!

with Prof. D'Ambroise

High Expectations

Grading Standards



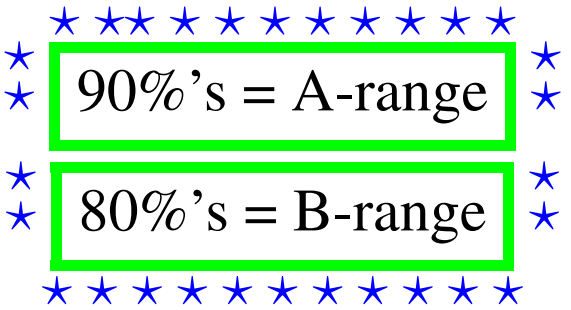
Grading Standards

90%'s = A-range

80%'s = B-range

74-79% = C or C-plus = passing

Grading Standards



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60%'s = D-range = failing
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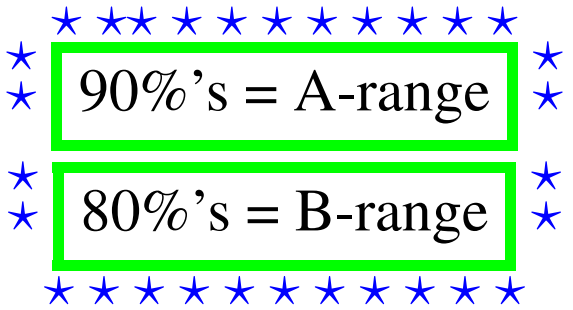

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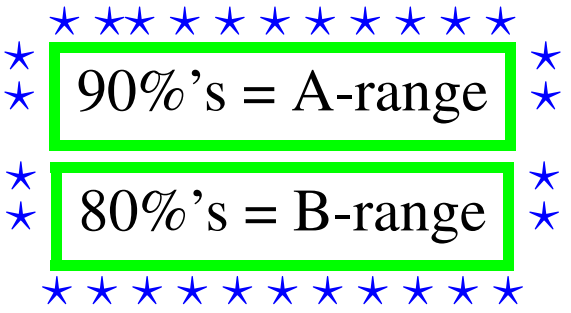
All students are held to the same high standards regardless of job/home/other class responsibilities.

Grading Standards

"Aim to pass" is a bad strategy (usually results in failure)



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"Aim for B" is better (not as risky & leaves room for error!!)

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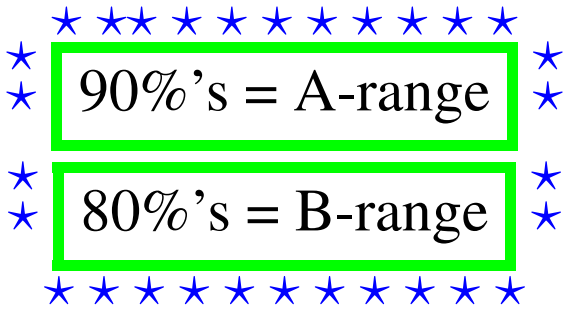

I hope you'll:
Aim for A !
Work hard !
Be humble !
Seek help !
:)

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Grading Standards

Aiming to surpass is the best strategy!

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How to read a math textbook

- KEEP MOVING FORWARD even if it means skipping parts
  - (math textbook $\neq$ novel)
  - revisit skipped parts frequently until you get it
  - admit it when you need help
  - get help
- MOST IMPORTANT = BE PERSISTENT & WORK HARD

Concrete Steps for Successful Students

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  - don't skip problems, work hard to understand *every* problem
  - test yourself using additional problems in the book

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Time Commitment

A student *with a strong background* and *who learns at an average pace* will need to commit **at least 10 hours** to this class each week after class interacting *directly* with the course material.

You might need more!

Math is vast!

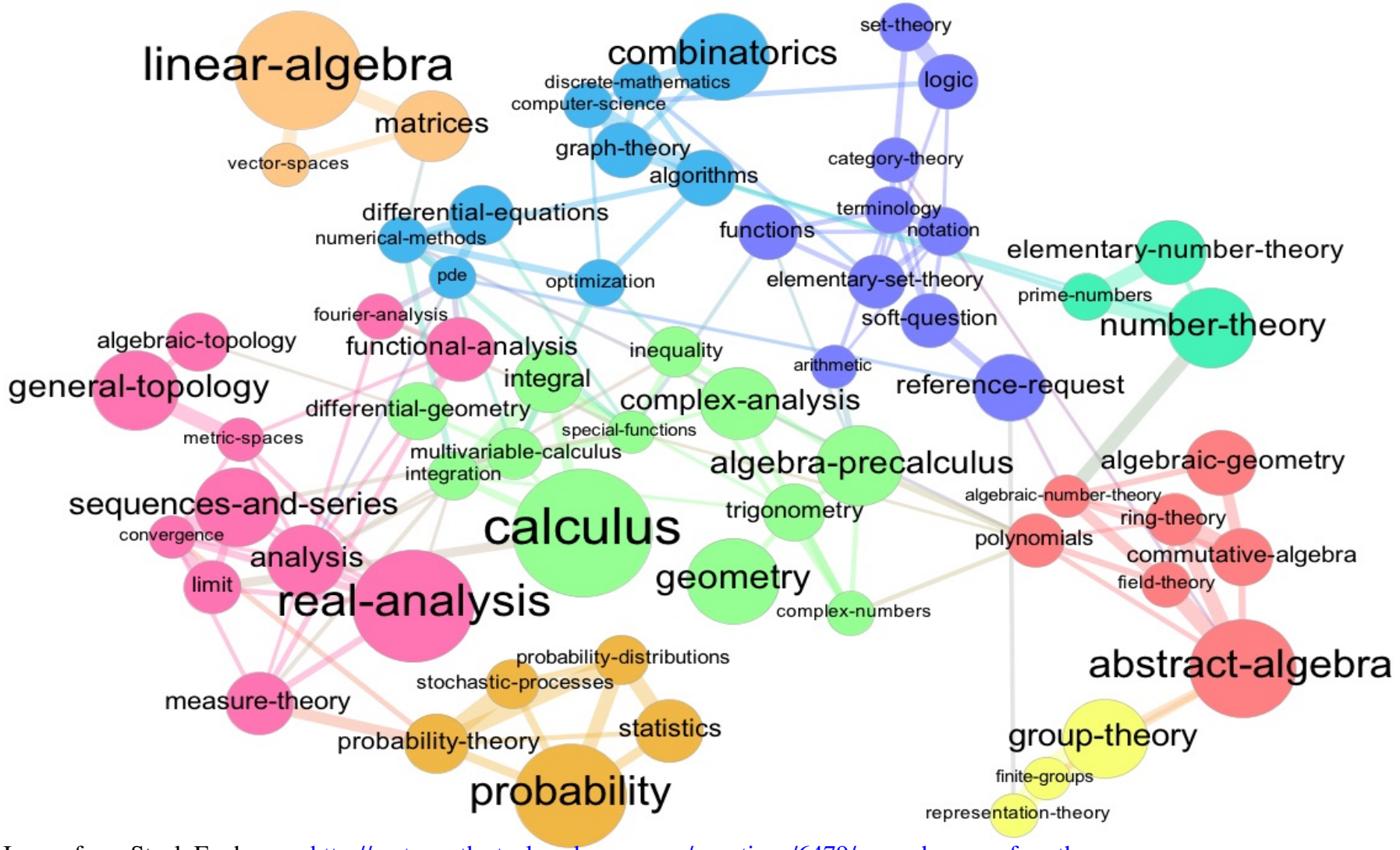

Image from Stack Exchange: http://meta.math.stackexchange.com/questions/6479/a-graph-map-of-math-se

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Relying too heavily on outside resources
can cause *confusion and failure!*

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If you use outside resources you must follow up with
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and interacting with *our* course material.

Only your Prof. can tell you what WE focus on in THIS class!

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Understand the Five Stages of Learning†

† A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition

by Stuart E. Dreyfus and Hubert L. Dreyfus, published by US Air Force, available at

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- knows the rules, but has no situational decision-making skills
- cannot adapt quickly or handle complex combinations of the rules

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The novice car driver knows the rules of the road but does not respond quickly or efficiently to new situations.

The novice math student knows the basics but cannot solve problems quickly or efficiently.

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- has considerable situational experience
- understands exceptions or deviations to the rules that might apply in different situations
- knows which situations are advantageous and which to avoid

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The competent math student knows how to deal with edge cases such as undefined quantities, and knows how and why to choose different techniques based on different situations.

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3 Proficiency

- less focus on situational difficulties
- more focus on long term goals

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The proficient car driver responds naturally to situational difficulties; they focus more on the higher overall goal of getting to the destination safely.

The proficient math student knows how to respond to edge cases and s/he knows how to choose between various techniques; they focus most on higher level understanding such as relating math to their desired career goals among other things.

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- learner responds automatically without consciously using rules
- *highly developed and accurate* intuition; rules are instinctual

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- *highly developed and accurate* intuition; rules are instinctual

The expert car driver has seen so much on the road that s/he is not surprised at challenges or incidents, and responds to them automatically.

The expert math student has seen so many problems that they are not surprised at the exam questions. The expert wastes no time deciding between various methods because they respond know instinctually what to do.

4 Expert Level = your goal before each exam

Exams test you at the expert level.

A rough guide for what to expect

- expert level knowledge = B or above on exam

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- novice or competence level knowledge = exam failure

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- moments of intense absorption in the subject matter
- mental energy no longer needed to produce nearly perfect results

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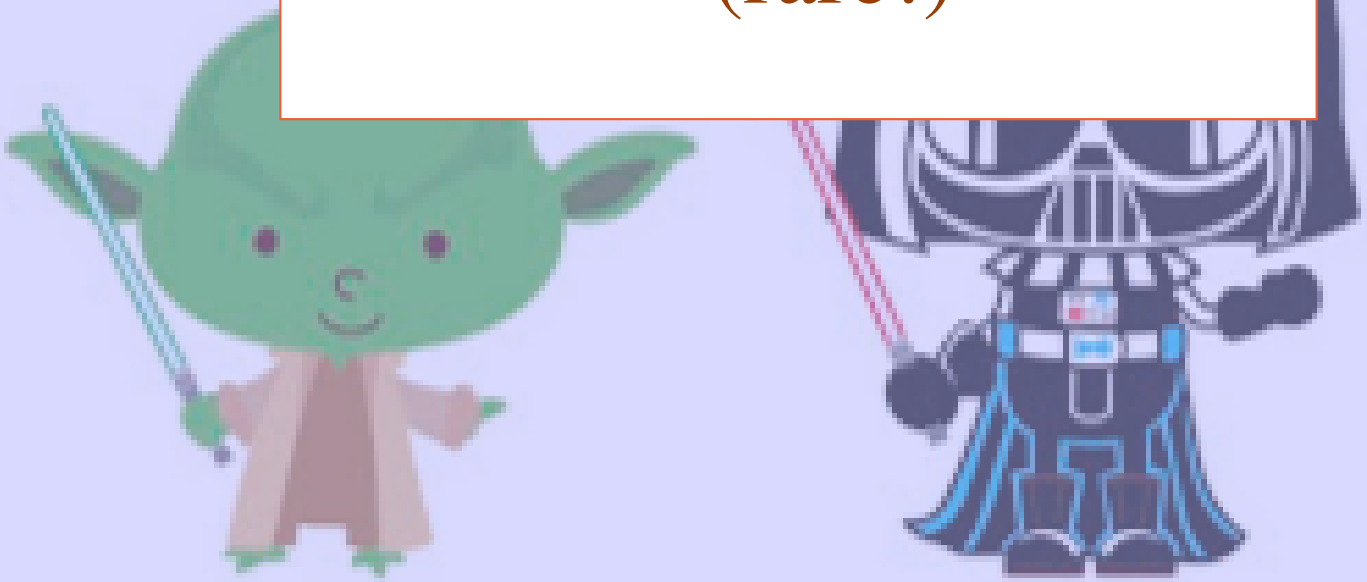
Mastery = A-performance (rare!)



Memes


UniqueTeachingResources.com
"Life begins at the end of your comfort zone."
~ Neale Donald Walsch


There is no elevator to success.
You have to take the stairs.
Unique Teaching Resources

Everyday