Introduction to Course
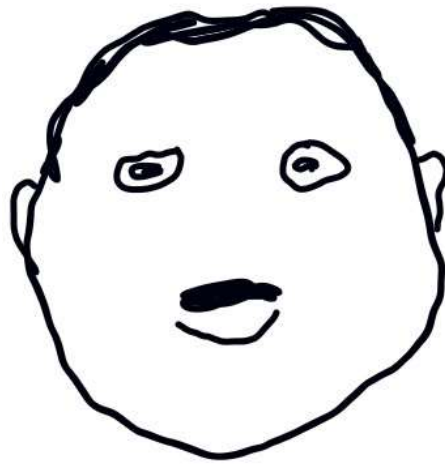
What you need to know

Welcome to the class,
I am Dave Levine

Office: 525 ERB

Welcome to the class, graders

On Canvas

Class

- This is a (hopefully) useful, important, and enjoyable class.
- But pretty busy

- "This is a class you will forget for the rest of your life."

Course Overview

- Course is about…
- Class "Flow"
- Who's who (graders, me)
- Bunch of details, you should know

Course

- The is a course in "cloud computing"
- I created this course a few years ago as a complementary course to two other classes I created: CSE 5306 and CSE 6350 which should have been: "Advanced Operating Systems (and distributed computing)" and "Cluster and Grid computing".
- Courses "mutate"

Course

- The course has become popular, there are now several people teaching different material with different teaching (course) styles.
- That's a good thing. Normal.
- ALL 6xxx courses should be like this.

My view of the course

- You learn by doing.
- You learn little by just sitting, listening.
- I will encourage you to interact, if possible.
- "Doing" is critically important.

My view of the course

- Examples, doing fast (quickly)
- Playing a musical instrument
- Learning another language (human or computer)
- Flying
- Preforming Surgery
- Each can be learned in a few weeks

My view of the course

- Each can be learned in a few weeks
- But not by watching someone else do it

- You already know this. Just a reminder.

the course

- Outcomes:
- You should be able to design, create, and deploy moderately complex systems on public cloud service providers.
- These systems should be robust, scalable, and "correct".

the course

- You will need to:
- Already know:
  - basic database (such as DB I),
  - be a good programmer (and willing to learn new languages if needed: Python, JavaScript),
  - be able to understand requirements, do design, implement and test systems
  - be able to create web interfaces,
  - Use non-local resources

the course, style (method)

- Why this material? (cloud providers, web interfaces, data representations)? (current and best practices)
- Why these assignments? (representative)
- Why these types of quizzes? Why so many?

the course

- Quizzes, need reliable computer,
- assignments, cloud accounts
- Not an intro course
- Attendance, missing quizzes – don't,
- Grading, regrade within 3 days (72 hours), 4 days on Thursday
- Cheating (unauthorized collaboration) – don't
  - -100 points as well as reported
- Canvas problems

the course, do

- Have a reliable portable computer, you will need it
- Get free tier, public, cloud accounts
- Attend (at least quizzes)
- Grading, regrade only within 3 days (72 hours), 4 days on Thursday

the course, don't

- Miss any quizzes
- Collaborate (cheat) – unless authorized (be sure you understand)
- Wait, if you have problems: Canvas, regrades,

the course, won't (can't)

- No "special deals" – everyone in class gets the same deals
- Be understanding of "diss"-ing fellow students:
  - Collaborate (cheat)
- Deal with Blackboard issues, regrades, after the fact (much later)

the course, you will need to do

- Have a reliable portable computer, you will need it
- Get free tier, public, cloud accounts
- You will need free tier (you may also use paid, if you wish) for:
  IBM Bluemix, AWS and Azure. Carefully read amount of time
  and services you get for each!
- You may NOT share accounts concurrently (parallel) BUT
  you may share serially (important to understand, if you want to share)

the course, you will need to do

- Get free tier, public, cloud accounts
- You will need free tier (you may also use paid, if you wish) for:
  IBM Bluemix, AWS and Azure.

Please Be Careful:
  Your Credentials (Credit Card, Account Details, Personal)
  Using Storage, Databases, other facilities, compute

the course, you will need to do

- Services are pay as you go – what you use
- Please Be Careful with:
  - Your Credentials (Credit Card, Account Details, Personal)
  - Using Storage, Databases, other facilities, compute
  - Don't keep instances (programs) running, when you don't need them
  - Remove big storage

  - Regardless of where things are – "github", or similar

the course, course and grades

- Regrade and other requests MUST be submitted on Canvas
- For an individual, an exceptionally large number of re-grade requests or within an artifact will cause us to doubt accuracy and we may regrade everything, including other artifacts previously submitted.
- You may (encouraged to) discuss any grades with Graders and GTAs but they will only make recommendations, they will not change grades (so don't "bug" them!)
- Anything handed back is yours to keep.

the course, taking quizzes

- No "special cases", no makeups
  (please do arithmetic: number students x number of quizzes)
- Collaborate (cheat) (-100 points + reported)
- If you have problems: network, Canvas, understanding, etc.
  let us know early

- Please don't show us local implementations (run on cloud provider)
- Have a freshly charged, setup computer. NO updates pending
  (or delay them). All software needed, installed.

the course, taking quizzes

- Note time: be on time, submit on time
- Usually, only text submitted (implementation)
- Submit multiple times
- No binaries! We can not run them!
- Cut and paste relevant parts – don't need everything.
- Please DO NOT run locally, show us demos running on cloud services

the course, taking quizzes

- Quizzes are timed.
- You will have two submission folders:
  "On Time" – you may submit multiple times.
  "Late" – you have a one minute "grace" time, afterwards,
  you will lose 4 points per minute late, up to 5 minutes late.
  no submissions after that.
- There must be NO talking after quizzes, while in the classroom!
  (Don't bug others – NF!)

the course, taking quizzes

- After the quiz, DO NOT discuss the quiz with anyone outside the class for a 12 hour period.
- Do not share, post, transmit the quiz to anyone (other than graders, Blackboard). This is NF, and is a violation of class policy.
- Really.

the course, taking quizzes

- Quizzes will assess what you can do.
- Quizzes may have concept questions.
- Quizzes (and this class) will have no "theory" and no "proofs"
- Quizzes are "short" (or "medium") size answers.
- No True/False or multiple choice, (unless you think that choosing an ASCII character (0..9, aA..zZ, punctuation) and putting those in words is "multiple choice".)

the course, taking quizzes

- If grades need boosting there may be unannounced "Bonus" quizzes.
- These are not required, there is no penalty for missing one or all.
- They are simply extra points added to your grade.
- They may (or not) occur any time in class.
- They can never lower a grade.

the course, assignments

- You MAY work together, BUT you must submit YOUR work.
- You may use web/internet/book and other sources IF...

  IF you give references, and change them (modify).

  ALL strings, variable names, and similar MUST be modified to
  be yours.

the course, assignments

- We can not (should not) debug your code.
- It is yours…
- We may give you hints/advise

the course, assignments

ALL strings, variable names, and similar MUST be modified to
 be yours.

- If you have a variable name in a resource such as "start_time"
  rename it to "own" it: such as "start_loading_page_time" or
  "dave_start_t".
- Magic strings such as: "@345gslfgh" (used in the past), must be
  modified (no magic). Need to understand. Explain.

the course, assignments

ALL strings, variable names, and similar MUST be modified to be yours.

If you use an assignment as a basis for a quiz (You Should!)
You must turn in the assignment before taking the quiz!
(At least 5 minutes before the quiz begins.)

This is necessary IF you use your assignment on a quiz.

the course, assignments, use on quizzes

ALL strings, variable names, and similar MUST be modified to be yours.

This is necessary IF you use your assignment on a quiz.

If you use an internet resource (code) during a quiz, you must give a reference as well as the previously described modifications. You MAY use code references on quizzes, if you do so.

Classroom

- You can eat and drink (but don't bother your neighbors (or me…))

Classroom

- You can (encouraged) to bring (your) kids to class.
- Or parents or grandparents.

Classroom
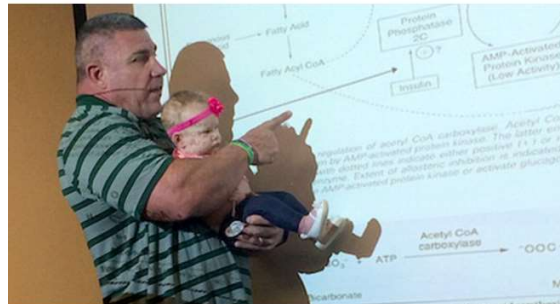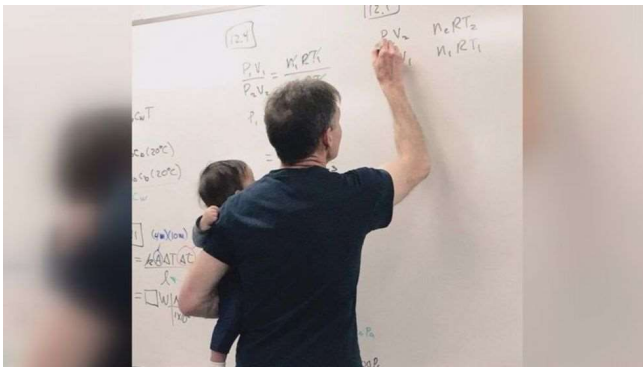
Classroom

- You can (encouraged) to bring (your) kids to class.
- If I can put **you** to sleep,
  I can put them to sleep.

  Yes - it has happened. More than once.

Grading

- Grades are done on a spreadsheet. Really.
- The most common grade is an "A". The second most common is a "B".
- This is not a guarantee, but every semester has followed this pattern
- Grades are done with thresholds, looking for large gaps. The gap between an "A" and "B" (or "B" and "C") is usually many points, perhaps 100, so someone doesn't "just barely miss" a higher grade.
- BUT – if you feel better, if you have a 90% or higher you are guaranteed an "A", 80% to 90% guaranteed a "B", regardless of percent of class in that category.

Grading

- This means that everyone in the class "could" make an "A".
- This has happened, but rarely.

Grading

- Grades are done on a spreadsheet. Really.
- Grades are mostly (almost entirely) consisting of quiz scores.
- There are no "special deals". (Not fair to others (NF))

  No "extra assignments". (NF)

  Grades are "only" for this class, not a reflection or compensation

  for "other" classes… (NF)

Grading

- If you are interested…
- Keep track of your grades. They are on Blackboard.
- When you have questions – ask. Early.
- Don't bug GTA/graders. Really. (NF)
- Of course – reasonable issues are important. Did we misgrade? Miss something? Misunderstand? DON'T WAIT to inform us.
- Not including – "I need a few "extra" points.." (NF)

Grading

- No "verbal" agreements.
- Must be in email (in writing).
- All agreements, understanding, special needs, requests should be in writing (email, Canvas) and also verbal (if possible)
- Canvas is preferable to email!

Grading, thresholds

- For example: 45, 73, 75, 76, 86, 88, 89, 90, 95, 98
- P = 10
- Should it be a: 90+ to 100 (2 people), 80+ to 90 (3 people), etc
  (A = 2, B = 4, C = 3, D (or F) = 1, good "curve" fit)
- Or: big gap between 76 and 86, 45 and 73,
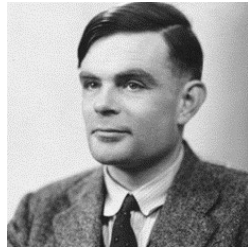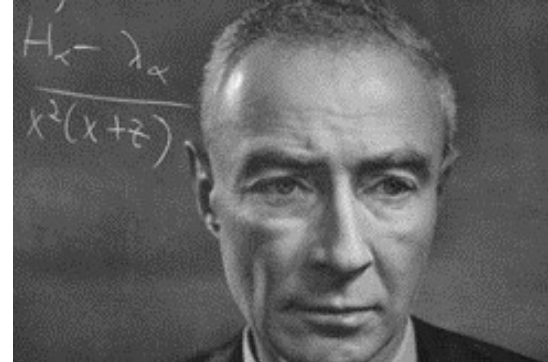 (A = 6, B = 3, C = 1)
- You can decide…

Grading, "curves"
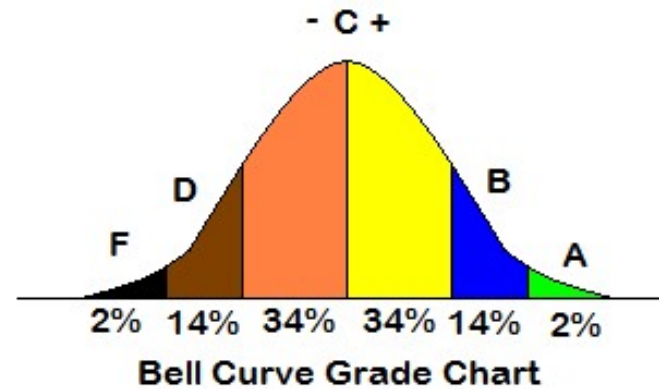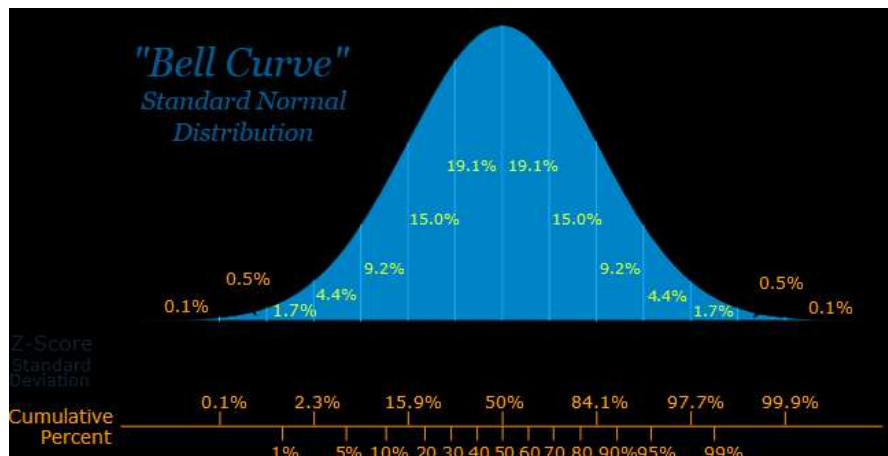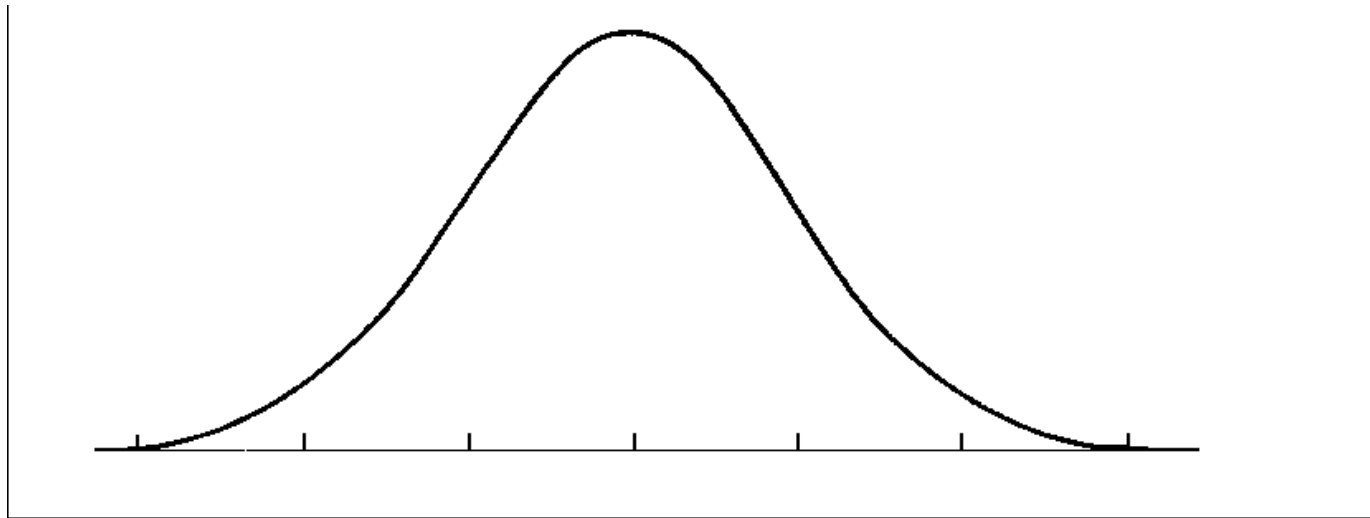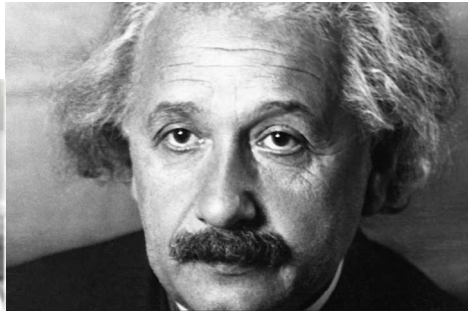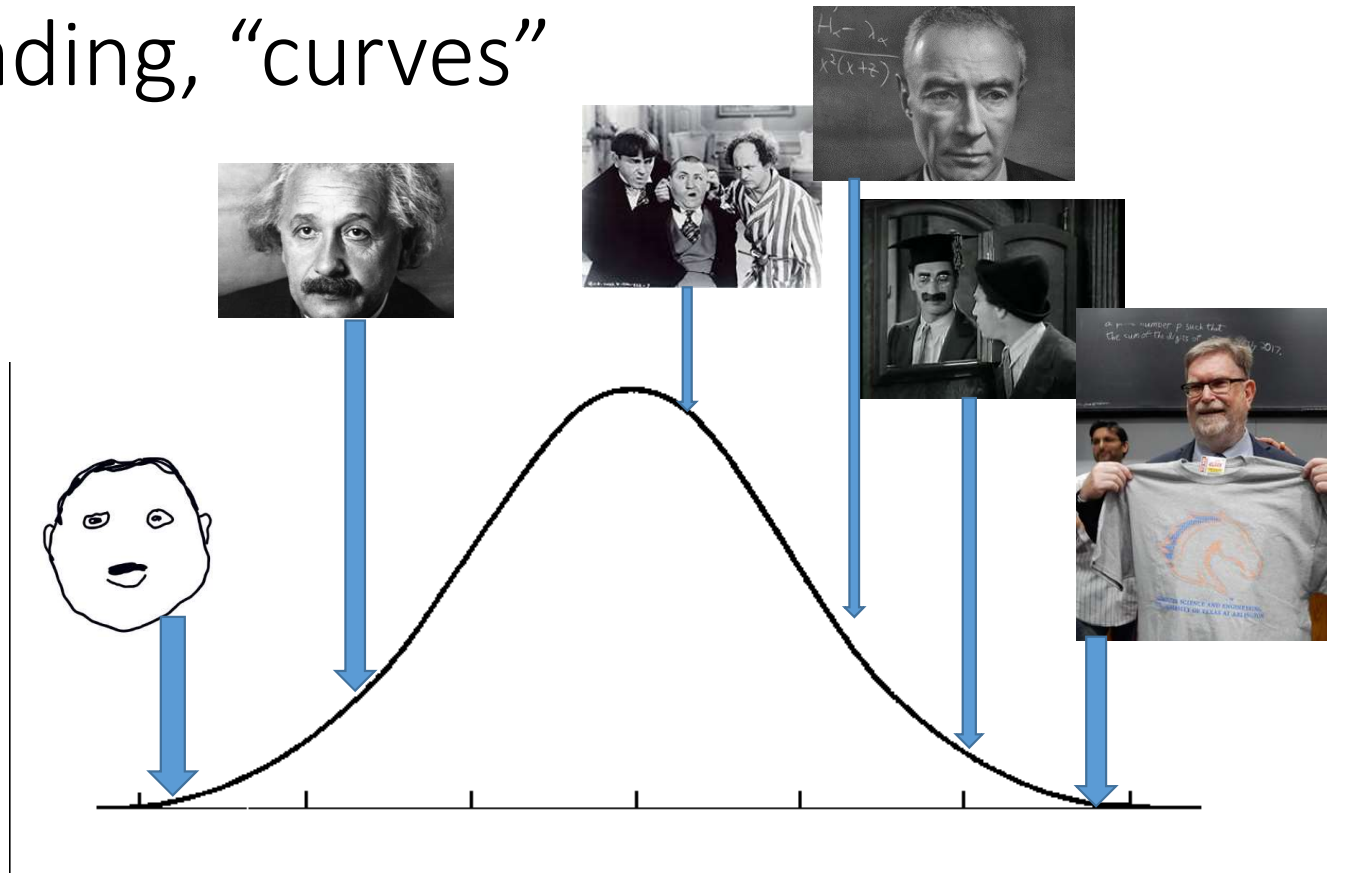
Grading, "curves"

Grading – putting people into curve

Grading, "curves"

Class

- We do NOT grade on attendance, directly.
- But there are NO makeups for missed activities. (No time available.)
- Since it is a fast class, a short time, and perhaps different from other classes you have take, please make SURE you understand ALL policies and agree to them.
- Please read, (understand) and sign agreement and return. We can not grade any of your work until you have done so.

Class

- You may have heard (many) comments, remarks, stories, advise and similar from:

- Your friends. Acquaintances. "Seniors". "Juniors". Enemies. Passersby. Stray animals. Fortune tellers. And many others.

- We don't know what they told you. They may be right. Or not.

- We will try to follow those methods, class flows, policies, in this presentation and discussed in class.

- We consider this the most "fair" to you.

Questions?

- Or, comments?
- Concerns?

Last Slide

- That's it.