Stat 201:
Introduction to Statistics

Chapter 0

Introduction

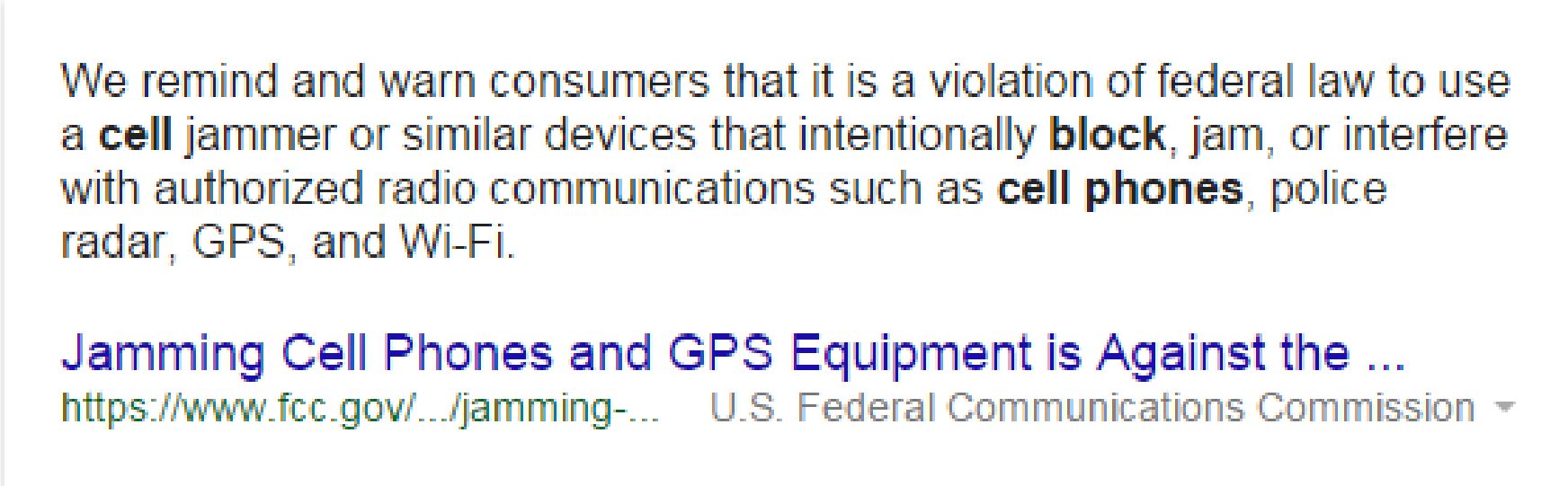
- William Cipolli
  - You can call me Will
- Graduate Student of Statistics
- BA in Mathematics
- BS in Comp Science
- MS in Statistics
- Previously worked at Travelers Insurance, Pitney Bowes, International Data Corp, Larch Lane Advisors, and FDTC.

Let's Look at the Syllabus

- Know your section for labs
- Sign up for Pearson if you haven't already
  - Course Code: cipolli68183
- **Lab instructor**: TBD
- Five minutes early is on time
  - If you're late because you got coffee, I want one!
- Cell phones – be polite, I will answer it if it rings

Cell Phones

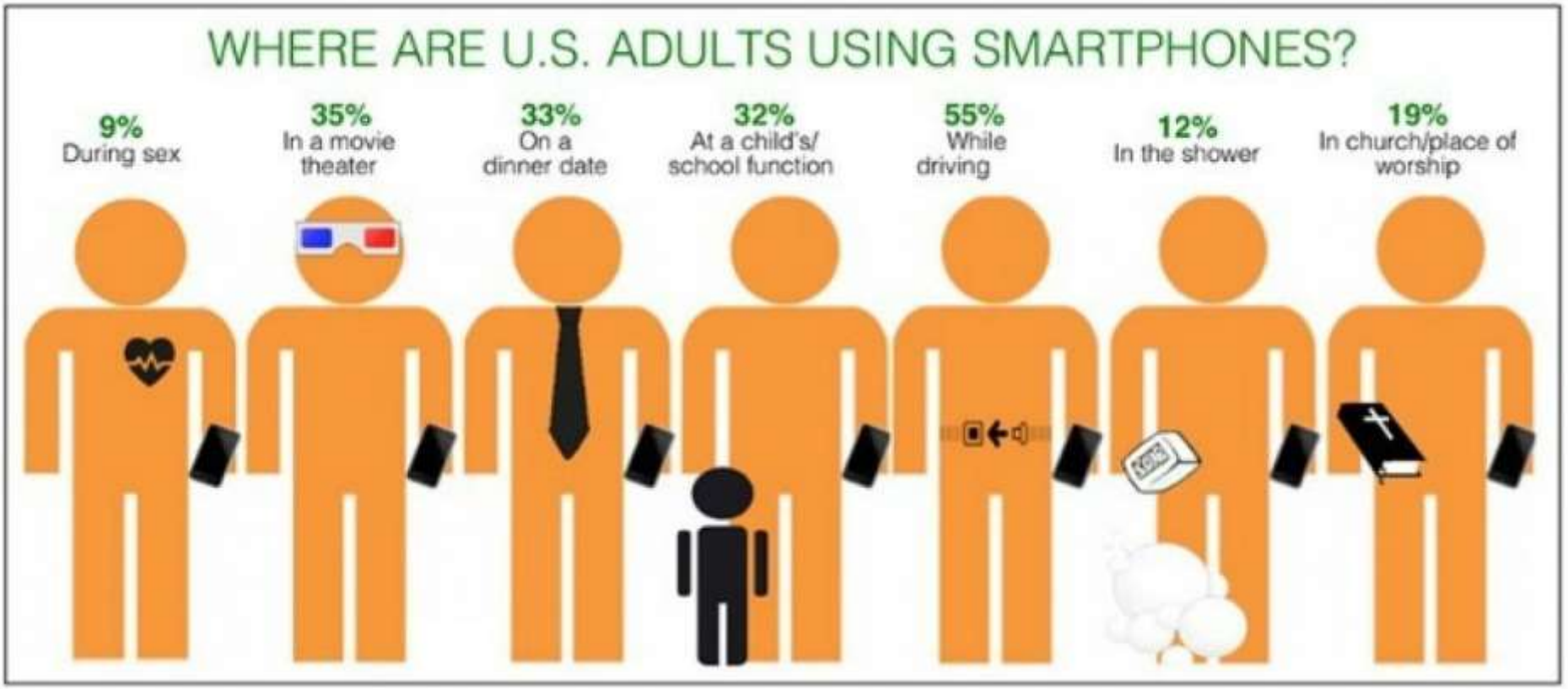
- Cell phones should be on silent or vibrate. They should be looked at sparingly and I will answer it if it rings
- Excessive use will result in awkward, silent starring



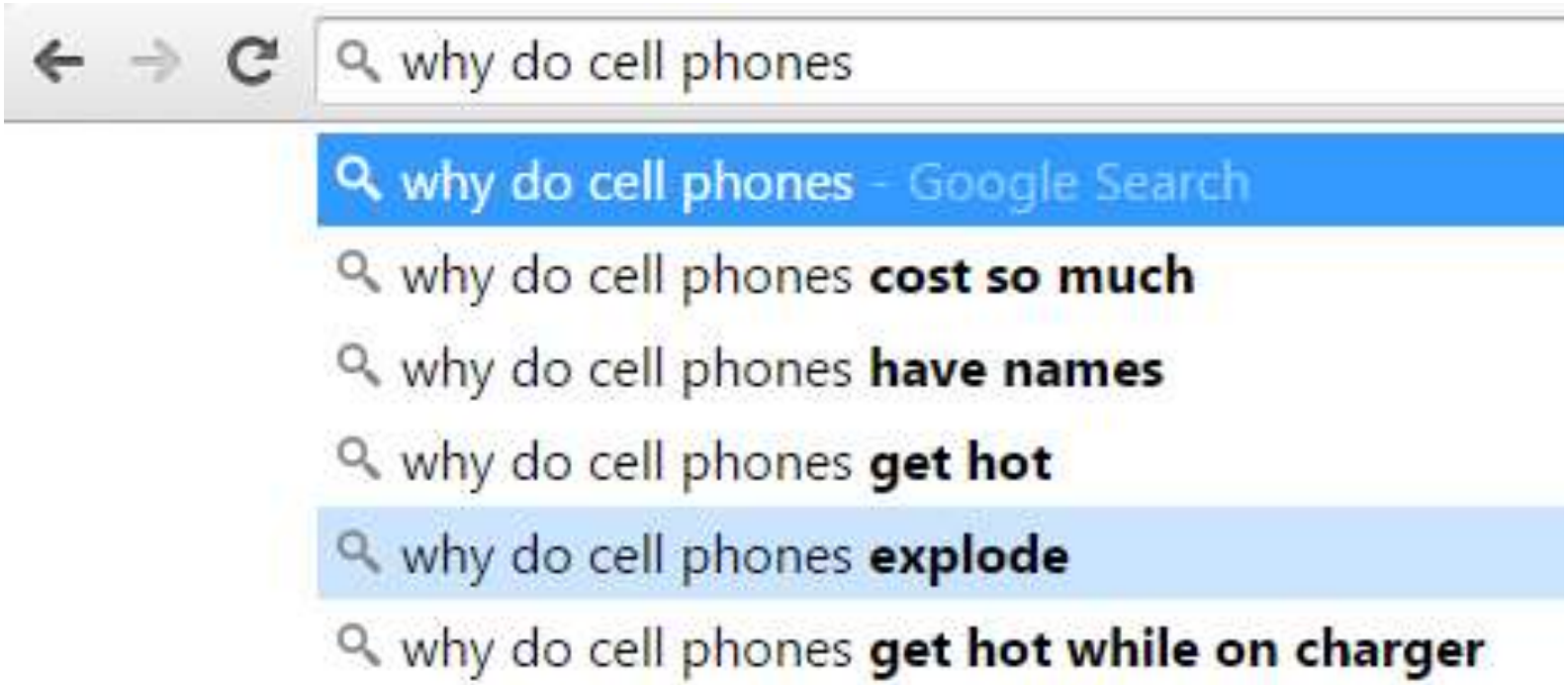
Cell Phones


0 degrees
10-12lbs
15 degrees
27lbs
30 degrees
40lbs
45 degrees
49lbs
60 degrees
60lbs

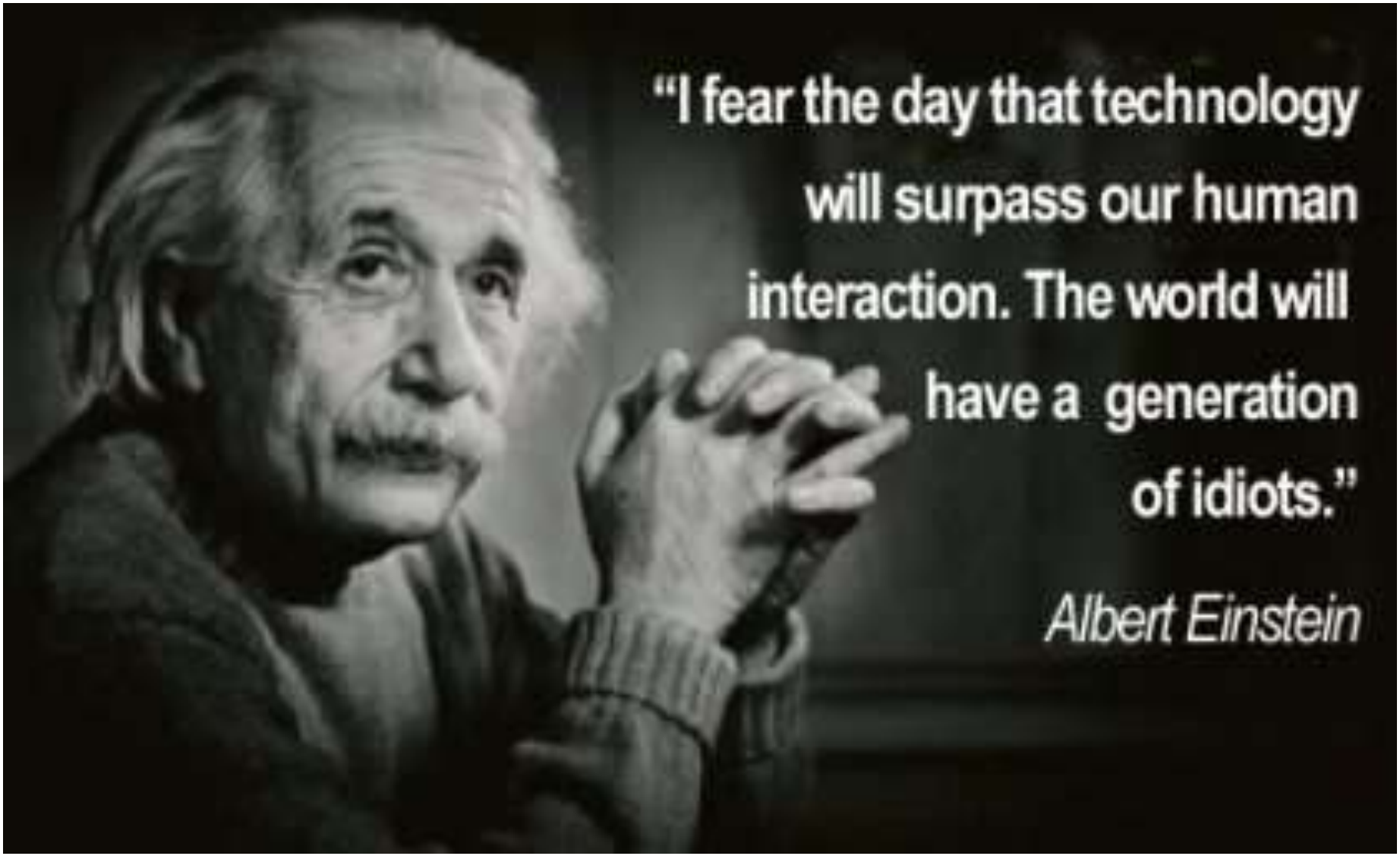
Cell Phones


WHERE ARE U.S. ADULTS USING SMARTPHONES?
9%
During sex
35%
In a movie theater
33%
On a dinner date
32%
At a child's/ school function
55%
While driving
12%
In the shower
19%
In church/place of worship

Cell Phones


why do cell phones
why do cell phones - Google Search
why do cell phones cost so much
why do cell phones have names
why do cell phones get hot
why do cell phones explode
why do cell phones get hot while on charger

Cell Phones


"I fear the day that technology will surpass our human interaction. The world will have a generation of idiots."
Albert Einstein

Cell Phones

- “The unspoken subtext of checking text messages in front of friends is: ‘Somewhere else there is someone who I care about more than you. I want to know what they have to say more than what you have to say to me now.’ The idea of being present in the moment is disappearing faster than you can say, ‘Hey, I’ve got to take this call…’ We devalue our current situation, the friends and family around us, our surroundings and setting, for something going on somewhere else.”

–Mark Glaser, PBS

Louis CK on cell phones:

https://www.youtube.com/watch?v=5HbYScltf1c

**There are some naughty parts

Let's Look at the Syllabus

- Don't cheat
  - Don't cheat unless it will give you an A in every class for the rest of your college career (it won't)
  - The person you're cheating off may be more stupid than you are for cheating!
- Use the internet!
  - You aren't so unique that no one else has ever come across the problem you're having
  - Google is your friend.

Let’s Look at the Syllabus

- Descriptive Stats
- Probability
- Random Sampling
- Linear Regression
- Correlation
- Hypothesis test
- Estimation

Let’s Look at the Syllabus

- There are roughly 35 topics we will cover and you will be evaluated on them all; we will not have exams but you can expect quizzes two to three times per week and two exam periods where you will be evaluated on many topics
- You will have multiple opportunities to show that you have met a standard and we will keep the best score

Let's Look at the Syllabus

- Standard scales range from 4 to 0.
  - 4 is perfect **for the standard being assessed** – it should be as good as an in class example done by the instructor
  - 3 essentially contains the correct answer but leaves out steps or contains small arithmetic mistakes
  - 2 does not contain the correct answer but the student does show work in the correct direction
  - 1 does not contain the correct answer or work in the correct direction
  - 0 is for no response.

Let’s Look at the Syllabus

- Any standard may appear **again**, **unannounced**, on **future** assessments or **re-completed** during the corresponding exam period

- The **best** achievement level is used for grading.

Let's Look at the Syllabus

- **Converting your standards to a grade:**
- **A:** A student will receive a grade in the A range by finishing the marking period with **all** standards at the Mastery level.
- A grade of A or A- may be given based on teacher discretion (ex. An A if a student took multiple attempts to reach many Mastery levels.)

Let's Look at the Syllabus

- **Converting your standards to a grade:**
- **B:** A student will receive a grade in the B range by finishing the marking period with **all** standards at the Acceptable or Mastery level.
  - The reason that even **one** Acceptable level drops a student to a grade in the B range is because to truly achieve an A in a course, a student must be a Master at **all** topics.
  - A grade of B+ or B may be given based on teacher discretion (ex. A B+ if a student has many or most standards at the Mastery level.)

Let's Look at the Syllabus

- **Converting your standards to a grade:**
- **C:** A student will receive a grade in the C range by finishing the marking period with **at least one** standard at the **Progressing** level.
  - A grade of C+ or C may be given based on teacher discretion (ex. A C+ if a student has many or most standards at the acceptable level.)

Let's Look at the Syllabus

- **Converting your standards to a grade:**
- **D:** A student will receive a grade in the D range by finishing the marking period with **at least one** standard at the **Unacceptable** level.
  - A grade of D+ or D may be given based on teacher discretion (ex. A D+ if a student has many or most standards at the progressing level.)
- **F:** A student will receive a grade of F by finishing the marking period with **the majority of** standards at the **Unacceptable** level.

Let's Look at the Syllabus

Grading Scale For Standards	Points you will be awarded
A	240 points (100%)
A -	223 points (92.9%)
B+	216 points (89.9%)
B	209 points (86.9%)
B-	199 points (82.9%)
C+	192 points (79.9%)
C	185 points (76.9%)
C-	175 points (72.9%)
D+	168 points (69.9%)
D	161 points (66.9%)
D-	151 points (62.9%)
F	0-144 points (59.9%)

Let’s Look at the Syllabus

- 2 in-class exam periods
- Final Exam
- Homework
- Lab Pre-quizzes
- Labs (SAWA)
- Essay (EWA)
- See Syllabus for grading breakdown

Let's Look at the Syllabus

Assignment Summary	**Points**	**Percent**
Homework	90	15%
Pre-Lab Quizzes	30	5%
Labs	90	15%
EWA	30	5%
Standards	210	40%
Final	120	20%
Total	**600**	**100%**

Let's Look at the Syllabus

Grading Scale	Total Points Earned
A	540-600 points (90-100%)
B+	522-539 points (87%-89.9%)
B	480-521 points (80%-86.9%)
C+	462-479 points (77%-79.9%)
C	420-461 points (70%-76.9%)
D+	402-419 points (67%-69.9%)
D	360-401 points (60%-66.9%)
F	<360 points (<60%)

Let’s Look at the Syllabus

- Schedule
  - Keep this with you – there’s no rhyme or reason to it and it’s confusing
  - Note what lab we’re doing you’ll do much better on your quizzes if you read the lab and watch the lab video before you go to class

SIGN UP FOR PEARSON ASAP!!!

Before We Get to Statistics…

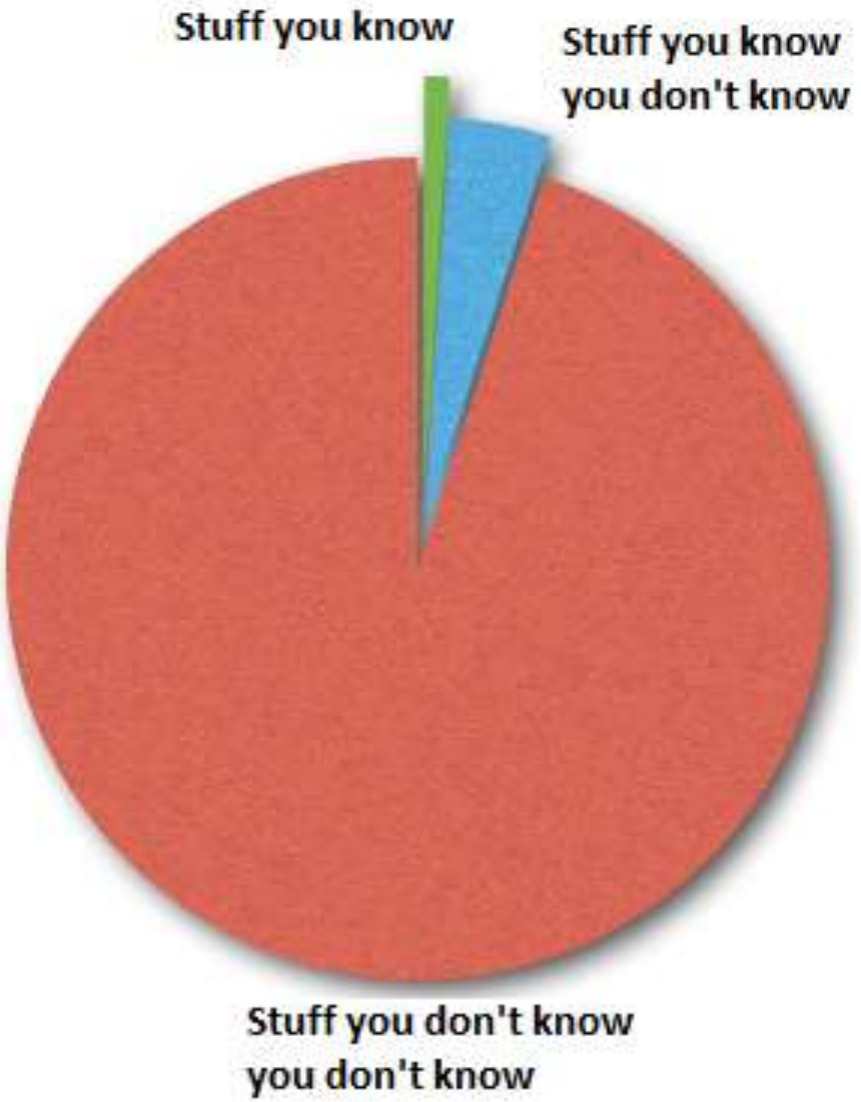
- You are all dumb.
- I am dumb

- We are all going to school to learn and become less dumb
- We should not be embarrassed to not understand something at first - it is a sign of intelligence and hard work to **ask questions**

Before We Get to Statistics…

- Actually, that's not true not all of you are dumb
- You don’t know most things. Did you know that? It's true, out of all the possible things to know you know almost none of it. There are way more things you don’t know and will never learn.
- Don’t be ashamed of it! Actively try to learn more!

Before We Get to Statistics…



Importance

- College courses are meant for **advanced** learning and requires you to connect yourself to the information – that means that **YOU** are the most important influence on your success
- You will only get out as much as you put into this class – your effort says a lot about you and the way you approach your work has lasting effects

What I Expect

1. Listen carefully when I lecture and go over examples and **ask questions when something doesn't make sense to you**
2. Be respectful to me, other students, your parents and the generations of people that didn't have access to an advanced education by being present and not distracting yourself or others

What I Expect

3. Reread the PowerPoint slides as you do your homework. If you aimlessly click around you will not learn anything. You should write out all the work when applicable and **ask questions in class if you get stuck**

4. Go to the tutoring center or come see me if you're lost or need extra help – all of this builds on itself.

What I Expect

5. Prepare for your lab sessions. Lecture is where I come in to introduce you to the material. Homework is where you **struggle** with and **learn** the material. Lab is where you come in and apply it.
6. Give and take in your lab sessions – all group members should take part in the lab. Do not be or let your partners be the student that just gets their name slapped on someone else's work.

Summary

- Be on time
- Ask questions: be an active learner
- Give your opinions – they’re important
- Be respectful of other students
- Be determined and purposeful
- Keep up with lectures and your homework

Statistics in the Real World

Sources:

- Glamour Magazine
- University Studies
- CDCP
- www.cracked.com

Random Statistics

The Average Person Spends 5 Years Doing This:

Waiting in Line

1 in 3 Men Don’t do This:

Wash Their Hands After Using the Bathroom


43% of Pilots Admit to
Doing This:
Falling Asleep While Flying


The Average
Person Does
This 1,140
Times Per Year
Make A
Phone Call

On Average, More Than 10 People Are Killed by this Every Year:

Vending Machines

Facebook Statistics


300: The Average Number of What a Teenager Has on Facebook
Friends


Facebook | Login - Mozilla Firefox
File Edit View History Bookmarks Tools Help
https://www.facebook.com/l
Wikipedia (Eng
facebook
95% of People on Facebook, on Average, do this Daily:
Bloom
Login to Facebook to enjoy the full functionality of Bloom. If you don't want this to happen, go to the normal Facebook login page.
Email:
Password:
Optional:
Save my login info to avoid logging in to Facebook again to use this application.
Login
Forgot your password?
Login!
Security Note: After login, you should never provide your password to an outside application. Facebook does not provide your contact information to Bloom.
Done
www.facebook.com
YSlow

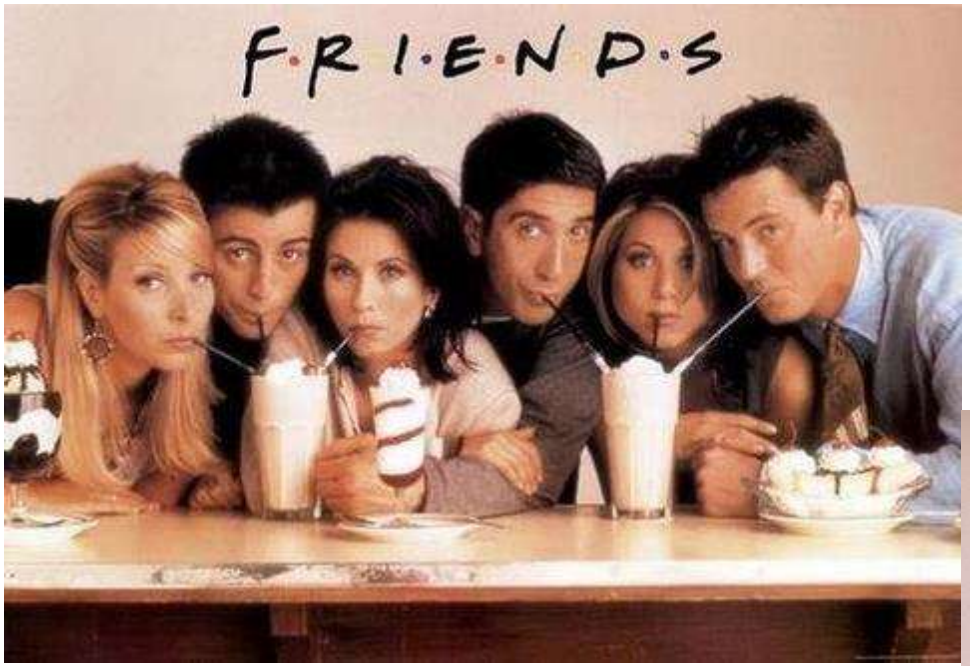

Select Photos
Home
Desktop
Pictures
Macintosh HD
Servers
NO NAME
AIM® Buddy Icons
iChat Icons
iPhone Pics
iPhoto Library
Photo Booth
350 Million: The Average Number of…
Select All
Showing 10 photos
IMG_0277.jpg
IMG_0279.jpg
IMG_0280.jpg
IMG_0281.JPG
IMG_0285.JPG
Photos Uploaded in One Day
Selected Photos
0 selected
Use Selected Photos
Cancel

Romance Statistics

20,160 (14): The Average Number of Minutes (days) a Person Spends Doing This:

Kissing

2 in 3 College Students Have Been in What Type of Relationship?



Friends With Benefits

1 in 3 of all the couples who got married in the US between 2005 and 2012…

met on the internet!

In 1960, 68% of all people in their twenties were married

Just 26% were in 2008

People that use iPhones are twice as likely to sext as those who have android.

No stats on Windows Phone users

One study found that 88% of those who continued to have access to their ex's Facebook page said they monitored their ex's activities while 70% of people who had disconnected from an ex admitted to trying to spy on the ex's page by other