

SCS4ALL Pre-Reg

Today at 4:30pm in GHC 4405!!!

There will be food!!!

In which old man ~~wilson~~ david talks about course selection

(and other things he wish he knew as a freshman)

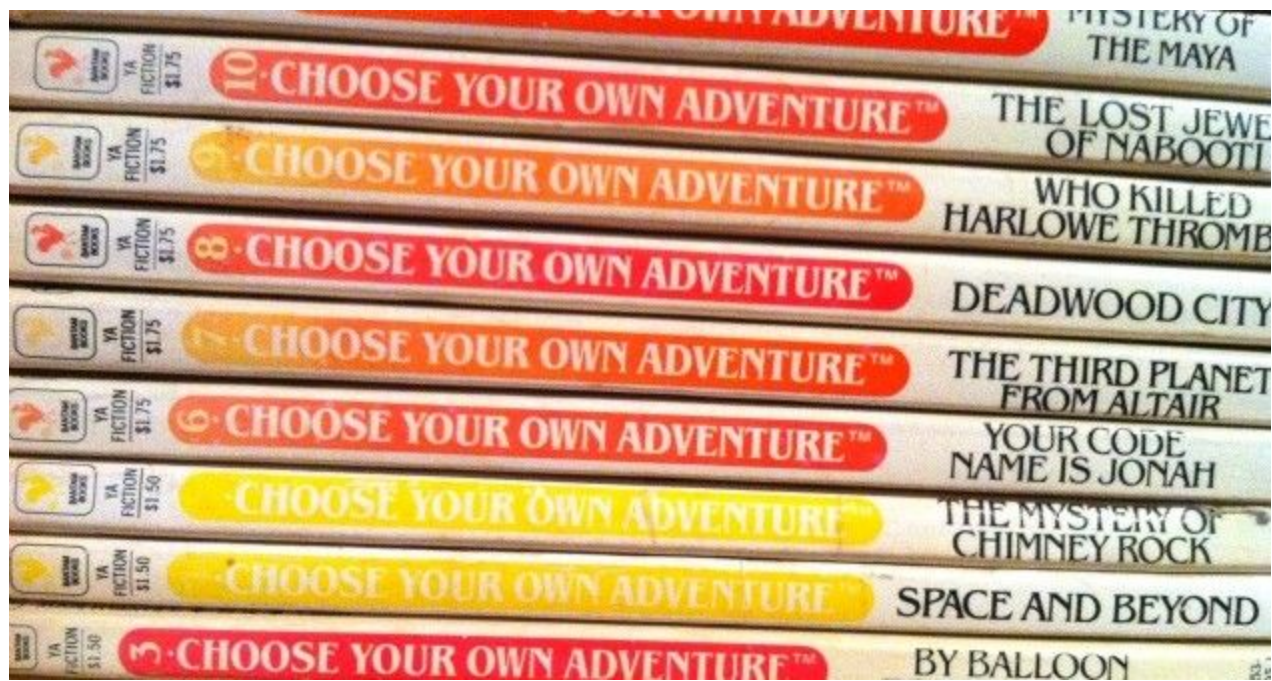
Motivation

- My days are numbered
- My back hurts
- Gained some “street knowledge” that Tom might not be able to tell you



General things I wish I knew

- Figure out if you are on track to graduate early or not
 - If you have a bunch of AP credit/transferable credits, this is not a pipe dream
 - A good portion of my friends are doing either 3 or 3.5 years
 - If you have a plan, then you know if you're able to drop that course that's stressing you out
 - Plan classes accordingly
 - 4 year masters???
 - **DONT BE ME**
- If you want to study abroad, plan ahead
 - You can knock out a lot of your humanities abroad
 - So don't take all of your humanities your freshman year, leave some later so you can chill
- Pick your concentration
 - But make sure you have some idea of what classes you like first!



CS Curriculum

- [Curriculum Website](#)
- CS Core
 - 15-128, 15-122, 15-150, **15-210**, **15-213**, **15-251**, 15-451
- Logic/Languages Elective
 - 15-312 (Programming Languages), 15-317 (Constructive Logic), etc.
- Systems Elective
 - 15-410 (Operating Systems), 15-411 (Compilers), etc.
- One AI Elective:
 - 10-315 (Intro to ML), 15-381 (AI)
- One Domains Elective
 - Computational Biology, Music, Security, Complexity Theory, Computer Graphics, etc.
- 2 CS Electives

CS Curriculum (cont.)

- Math and Probability
 - 21-120, 21-122, 21-24[12], (**15-259**|21-325|36-218|36-225,36-226)
- Science and Engineering
 - 4 courses: 1 lab and 2 from the same department
 - Lab: experimental physics, chemistry, biology
- Freshman Writing (Interp)
- Technical Communication
 - 76-270 Writing for the Professions
 - 17-200 Ethics and Policy Issues in Computing (new)
 - 15-300 Research and Innovation
- Humanities
 - 3 Category electives (cognition, economics, culture) and 3 electives of your choice

Portal Courses -> Concentrations

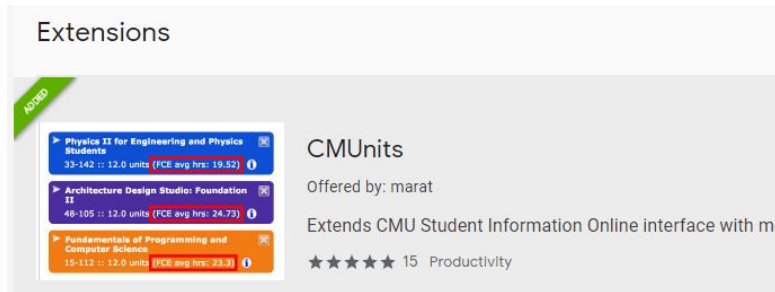
- 15-251 -> [Algorithms and Complexity](#)
 - Math and Theory
- 15-213 -> [Computer Systems](#)
 - Systems and Practice
- 15-210 -> [Principles of Programming Languages](#)
 - Logic

Minors vs Concentrations

- Lots of people do non-CS minors
 - Foreign languages
 - Music
 - Math
- But there's also more awesome classes in SCS than you could ever possibly take
 - Even if you just take the most awesome ones, they keep designing more of them...
- Bottom line: Do what you're passionate about
- Bottom line: Keep an open mind for freshman/sophomore years
 - You'll make a better decision if you have more data
 - Talk to your advisor, they have lots of data as well!

Interpreting units for CS classes

- Sometimes units are **dishonest** for CS classes
 - Do not actually reflect the true # of hours you spend per week
 - Units are deflated because if you drop a class, you don't want to go part time or drop out
 - And for other good reasons
- Use <https://cmu.smartevals.com/> to get an honest perspective
 - Faculty course evaluations
- Example: **Compilers is 15 units** but I spend **25 hours a week**
- **CMUnits** (chrome link)
 - Show SmartEvals inside SIO



TA-ing

- You don't always need an A in the class! (but classes differ)
- Usually there will be a call for applications near the end of the year/class
 - Shameless plug...we're hiring!
- Variable amount of hours per week
 - "Average" breakdown: ~13 hours
 - Grading (8 hours)
 - Office hours (2-4 hours)
 - Recitation (1-2 hours)
- Incredibly rewarding...and fun!
- Can be done either for units or \$\$

Research

- Can also be done for units for \$\$
- Contact a professor/grad student
- If you start early, it'll set you up for grad school (if that's your goal)
- Could even get published as an undergrad!
- Be sure to take 15-300 if you think you might be interested in research

Street knowledge

- The first numeral of a class is its “difficulty level”
 - Not always accurate!
- Masters classes (6xx) are sometimes easier than undergrad classes (4xx)
 - Usually grad classes are more hyped in other schools but they're the same level as undergrad classes in SCS
- PhD classes (7xx) are actually kind of hard....
 - Less tests/more theory

Final bosses

- “Final bosses” of CS
 - Each about 25 hours, partner-based courses
 - Both satisfy your systems requirement
 - Very hard and time consuming...this is when you want to take “easier” humanities on the side
- Compilers
- OS
- **If you want to take two or more, consider the Computer Systems concentration!**

Be kind to yourself

- Don't get caught up in the rat race that is CMU
- Don't feel pressured to prove yourself to others
- Do things for yourself
- Sometimes it's better to not overload...you actually get to learn more and enjoy life
- Take care of your health.

Panel

Ask us anything!

<https://tinyurl.com/2019gpiadvice>

(and remember, Pre-Reg is 4:30pm in GHC 4405)