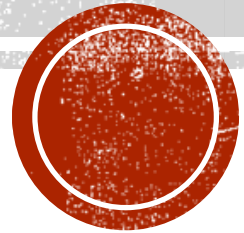
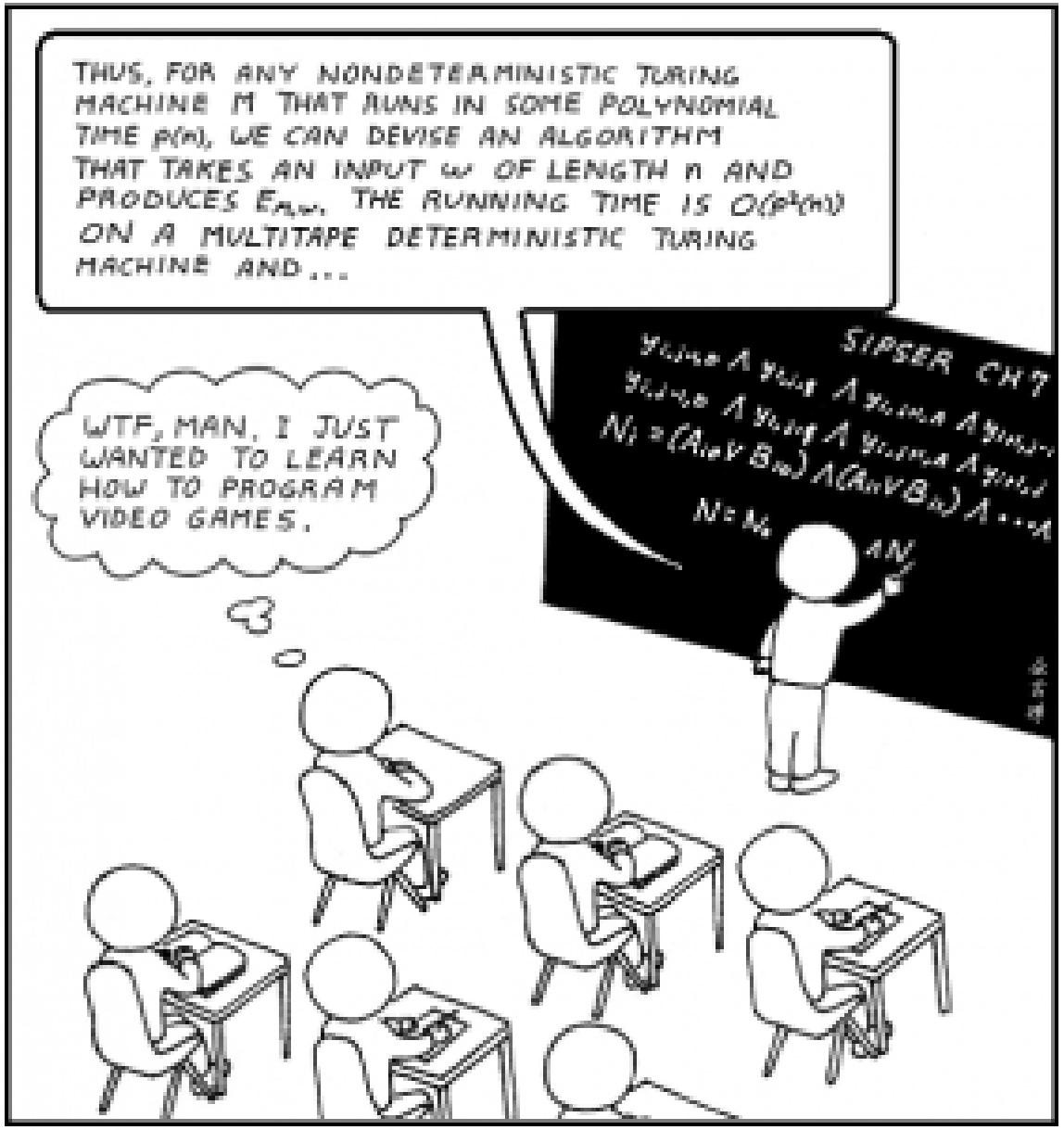
COMPUTER SCIENCES

Major Declaration Information





TOPICS

Declaring Computer Sciences

Major Requirements

Other Requirements

Involvement & Opportunities

Advising

Next Steps

Declaring Computer Sciences

- Why?
  - Access to advanced courses is restricted to declared students only
  - Access to more resources, like emails about job opportunities, CS events, etc.

- When?
  - Once you've taken one CS course at the UW-Madison campus and earned a "C" or better
  - This includes cross-listed courses, like CS/Math 240 and CS/ECE 252
  - This does NOT include transfer, AP, or IB credit

Why?

When?

How?

DECLARING COMPUTER SCIENCES

Why?

When?

How?

- How to declare – L&S students
  - Complete this form! After entering your information at the end, the CS Department will process your declaration and email you once it's complete
  - Can take up to 2 weeks

- How to declare – non L&S students adding a second major
  - Check with your home school/college regarding policies and procedures to add an L&S major
  - After entering your information at the end, the CS Department will send you a PDF that you'll need to take the your academic advisor in your home school (i.e. your Engineering/Business/CALS advisor)
  - Can take up to 4 weeks

- How to declare – non L&S students who plan to transfer to L&S to major in CS
  - Stop here – you'll need to transfer to L&S first before declaring the major.
  - Go to the L&S Advising website to find out how to transfer

MAJOR REQUIREMENTS

Resources

Basic CS courses

Changes to intro sequence

Math Requirement

Advanced courses

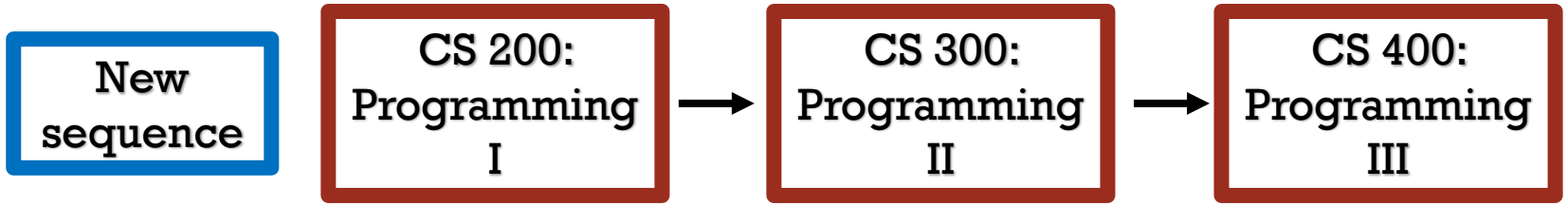
- DARS
  - Run your DARS report every semester before enrolling to see what courses you still need. Be sure to carefully review your report in its entirety and ask an advisor if any sections are unclear
  - Until your major declaration goes through, run a what-if report
- The Guide
  - The Guide lists all requirements and course options for the major
  - You can also find information here at Honors in the Major
- Course Guide each semester
  - Course selection varies by semester. Course Guide is published about one month before enrollment starts. Make sure to check Course Guide to see what will be offered for the upcoming term
  - Course Guide will also list pre-requisites. Some CS courses have additional CS and Math pre-requisites to pay attention to

- Intro programming sequence – students will be in one of these two tracks. Both cover the fundamentals of java programming and data structures
  - Old sequence:
    - CS 302 – Intro to Programming
    - CS 367 – Data Structures
  - Current sequence (students starting CS Fall 2017 or later):
    - CS 200 –Programming I
    - CS 300 – Programming II
    - CS 400 – Programming III

- CS/ECE 252 – Intro to Computer Engineering
- CS/ECE 354 – Machine Learning & Organization
- CS/Math 240 – Discrete Mathematics

MAJOR REQUIREMENTS

- If you're in the old sequence (you've completed 302), make sure to take CS 367 by spring 2018, as it won't be offered after that.
- The CS Department will also accept CS 301, 302, 310, (252+ ECE 203), a 3 or higher on AP Computer Sciences A, or a 4 or higher on IB Computer Sciences higher level instead of CS 200 as a pre-req into CS 300
- Your DARS report will count either completed sequence, regardless of when you declare



MAJOR REQUIREMENTS

Resources

Basic CS courses

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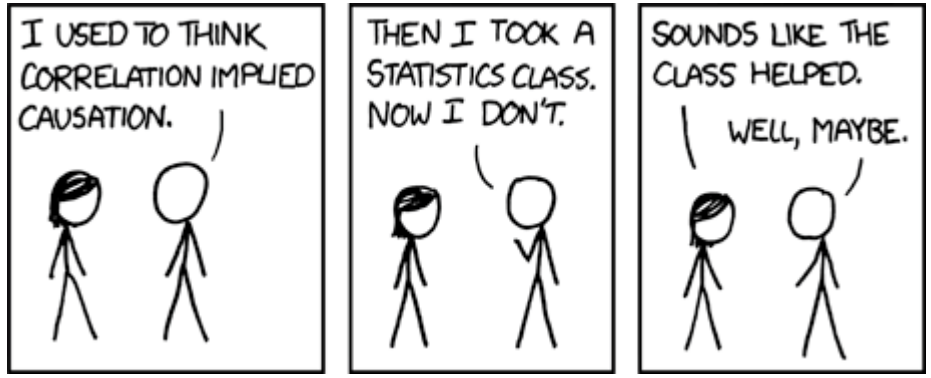
Math Requirement

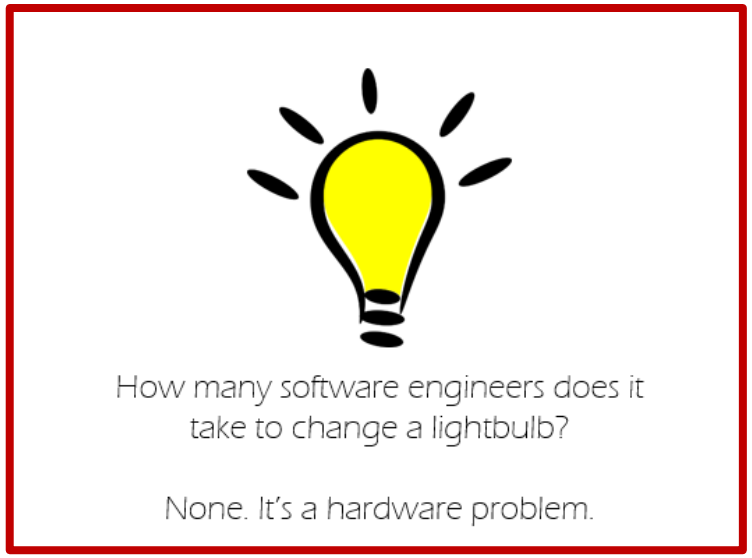
Advanced courses

MAJOR REQUIREMENTS

- Math 221 & 222 required
  - Math 171-217 & Math 222 OR Math 275 & 276 also allowed
- 2 additional courses beyond Calc II required
  - Check The Guide for full course list – there are a lot of options to choose from
  - If you're completing just the CS major, Stats 324 (Stats for Engineers) and Math 340 (Linear Algebra) are the recommended courses
  - Do you have another major that requires math beyond Math 222? Check requirements for your other program – it's possible the required course for your other program will count for the CS major. Just make sure to check your DARS!



- Theory
  - 1 course required
  - 577 (Algorithms) is recommended
- Software/Hardware
  - 2 courses required
  - These courses tend to be more programming-intensive and projects-based
  - Common courses include: Databases, Operating Systems, Software Engineering, and Networks



MAJOR REQUIREMENTS

Resources

Basic CS courses

Changes to intro sequence

Math Requirement

Advanced courses

- Applications
  - 1 course required
  - Some courses are programming-intensive, where others are more math-based
  - Common courses include: Artificial Intelligence, Optimization, Graphics, and Human-Computer Interaction
- Electives
  - 2 courses required
  - Electives are advanced level courses in Computer Sciences – full course list in the Guide
  - Taking additional courses in Theory, Software/Hardware, or Applications can fulfill the electives requirement (example: if you take two Applications courses, the first will fulfill Applications and the second will count towards electives)

MAJOR REQUIREMENTS

Resources

Basic CS courses

Changes to intro sequence

Math Requirement

Advanced courses

MAJOR REQUIREMENTS

Spacing courses & other fun notes

- 2 CS/Math courses per semester is typical
  - One plan is shown below, but more can be found online, and you can make one with your advisor
- Pay attention to pre-reqs! If you're interested in CS 640 (Networks), you'll need to take CS 252 (Computer Engineering), then CS 354 (Machine Learning & Organization), then CS 537 (Operating Systems) all before being eligible for CS 640

Plan starting with CS 200 and Math 221

	FALL TERM	Credits	SPRING TERM	Credits
Year 1	CS 200 – Programming I Math 221 – Calculus I	3 5	CS 300 – Programming II CS 252 – Computer Engineering Math 222 – Calculus II	3 2 4
Year 2	CS 400 – Programming III CS 240 – Discrete Math	3 3	CS 354 – Machine Organization Math beyond Calc II (Math 340 rec.) *CS 368 (C++) – optional course*	3 3-4 *1*
Year 3	CS Theory (CS 577 rec.) Math beyond Calc II (Stat 324 rec.)	3-4 3	CS Applications CS Elective	3-4 3-4
Year 4	CS Software/Hardware CS Elective	3-4 3-4	CS Software/Hardware	3-4

Other Requirements

GPA Requirements

General degree requirements

GPA requirements in the CS major are cumulative. That is, a "D" grade counts towards major requirements, but you will need a "C" average to graduate.

- Major GPA (everyone!)
  - 2.0 GPA in major courses (this includes math courses taken for the major as well)
  - 2.0 GPA in advanced courses in major (CS courses at the 400-level or higher)
- University GPA (L&S students only – other colleges have different GPA requirements. Make sure to check your DARS!)
  - 2.0 GPA in all UW – Madison courses
  - 2.0 GPA in intermediate/advanced courses

General degree requirements can be found on your DARS report. These vary by school. L&S students can find their requirements here, and typically take 2-3 general courses per term to balance their major courses.

- L&S Career Services
  - Offers résumé help, mock interviews, individual appointments, and hosts career fairs
  - Gain access to BuckyNet, a UW-Madison job search tool
- Engineering Career Services
  - Offers events and hosts career fairs for Computer Sciences majors, even if they aren't in the College of Engineering
  - Gain access to MyECS, a UW-Madison Engineering job search tool
- Computer Sciences Job Fair
  - Held every fall – great place to look for summer internships and post-graduation jobs
  - Check the CS events calendar for more opportunities!

INVOLVEMENT & OPPORTUNITIES

Career Services

Involvement

Research

Tutoring

Involvement & Opportunities

- Involvement Opportunities
  - Join a CS student org, like the UPL, WACM, dotDATA, etc. For a full list, search the WI Involvement Network (WIN) directory
  - Participate in a hackathon
- Get involved in research
  - Check out research being done by faculty in the department and contact those you'd want to work with
- Get – or be – a tutor
  - CS 402: teach programming to local elementary school students
  - CSLC: the CS Learning Center has tutoring available for intro CS courses. They're located on the shelf of the first floor in CS

Career Services

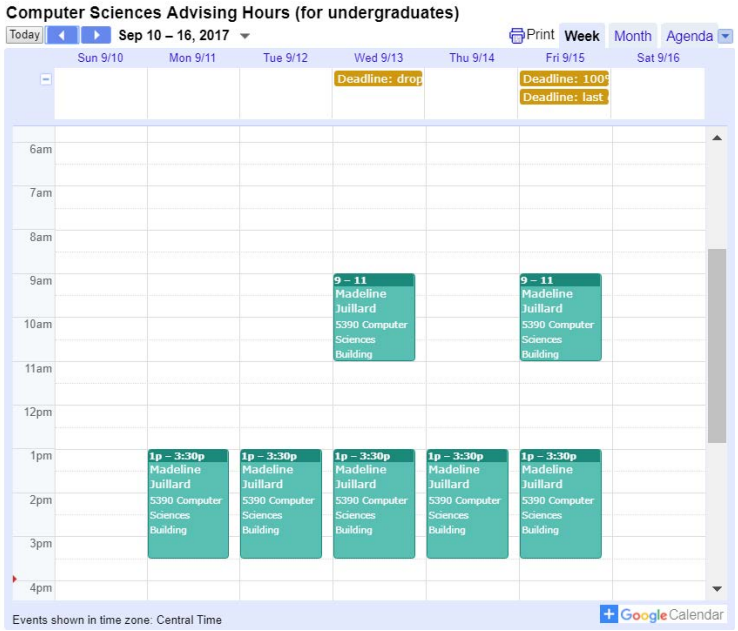
Involvement

Research

Tutoring

ADVISING

- Walk-in advising is available throughout the semesters and periodically during breaks
  - Come early! During busy times (November and April), advising space fills quickly
- You can meet with a staff advisor or a faculty advisor, depending on your question. Check out the advising calendar for more details
- Check your email! CS Advising occasionally sends emails with important information about enrollment, advising, and events to check out
- Quick questions? Email the CS Advising account



Advising calendar:
http://www.cs.wisc.edu/advisors

Email:

advising@cs.wisc.edu

NEXT STEPS

Answer the questions in the survey and the enter your information – you'll hear from us within two weeks

Any questions?
Contact CS Advising:
advising@cs.wisc.edu