

Intro to software development

- the need for understanding software development
- one general software life development life cycle (SDLC)
- our focus for CSCI 160
- where later courses will take you
- you'll never be done learning!

why understand software dev?

- a no brainer if you plan on developing software yourself
- also crucial for anyone aiming at management positions anywhere in a tech-related industry
- as a user, still highly likely you'll be impacted by someone else's software development process: less painful (and you can be more useful) if you understand what they're trying to do

(One) general SDLC

- someone recognizes the need for change (new software, or changes to existing software)
- figure out if it's feasible (costs, risks, timelines, etc)
- decide exactly what the new/changed product will be
- plan out the project
- design a new solution
- build, debug, and test the new/revised system
- deploy and maintain the new/revised system

Our focus in CSCI 160

- other courses will focus on specific aspects of the SDLC and on design and implementation details for specific aspects of systems
- we'll assume someone has already gone through the first several steps, and will focus on designing, building, debugging, and testing a solution
- we need to develop basic fluency in a programming language (C++) and basic fundamental design and coding skills and habits

later courses

- CSCI 161 picks up where we leave off, getting deeper into the fundamentals
- CSCI 162 gives an intro to a broad range of CS areas
- second year courses dive into greater depth in overall software development, complex data handling, and the interaction between hardware and software
- third and fourth year courses generally pick different specific areas of CS and dive into each in much greater detail (theory, networks, operating systems, hardware, AI, machine learning, user interfaces, etc etc)

you're never done learning

- this field is constantly growing and evolving
- if you plan on being in the industry (and actually enjoying what you do for a living) you will constantly be learning new languages, new systems, and new techniques
- each new language, system, and technique you learn makes it easier to learn other new ones in the future
- hopefully we'll help you reach a point where you can teach yourself anything you want to learn