


*CSE 321: Case Studies in  
Component-Based Software*

*221/222/321: What is it about?*

- What are the fundamental, unifying themes in these courses?
- Programming? Algorithms? Data structures? C++?



## *What You Have Done*

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- 221: Using abstract & concrete *instances*
  - Client of existing components for applications
  - Client of existing components for extension
- 222: Using abstract & concrete *templates*
  - Client of existing components for applications
  - Client of existing components for extension
  - Implementer of kernel components



## *About This Course*

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- More of 221/222
  - Implementer of `Sorting_Machine`
- Mostly driven by two case studies:
  - Build a large piece of software with the component-based approach learned in 221/222
  - Design and implement a new component family to build an interesting application
- Learn new computer science topics of independent interest and importance



## *Lab Teams*

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- You will do all of your lab work with a partner.
- Partners should learn *from* and *with* each other.
- You can select your own partner.



## *Picking a Partner – Questions You Might Want to Ask*

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- What grade do you want to earn?
- Are you a good programmer?
- How many hours are you taking?
- Are you working?
- When are you on campus?
- Are you a morning person? Night person?
- Do you like to be done the day after the lab is *assigned* or the day after the lab is *due*?

## *Working With a Partner — Some Ideas*

- Meet the day a lab is assigned to clear up questions, divide the work, set a schedule.
- Design on paper and consult with your partner if having trouble.

## *Ideas Continued...*

- Meet to review each others' designs. Look with a critical eye, but always be constructive.



## *Ideas Continued...*

- For the most part, work separately when entering code and removing syntax errors.
- Do your own initial testing and debugging. Consult with partner if having trouble.
- Thoroughly test each others' programs.
- Possibly work as a team during final testing and debugging.

## *Make It Work!*

- Marriage counselor will be available.
- Divorce is a no-no!

