

# Lecture 28: Course Evaluation Beyond 370 Benjamin's Research

CSE 370, Autumn 2007  
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## Course Evaluation

- Numbers are useful
- Comments are even better

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## Administrative Stuff

- Review session this afternoon at 2 in CSE 303
- Final exam Monday morning at 8:30 in EE 037
- Lab check-off opportunities entirely up to lab TAs (until next Friday)
- Unreturned/uncollected material will be available during the exam
  - Will be recycled shortly thereafter

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## Computer Engineering at UW Beyond 370

- 378: Much more computer organization
- 466: Embedded systems software
- 467: Advanced hardware design
- 468: VLSI (not taught often)
- 471: Advanced computer organization
- 477: Digital system design

## Computer Engineering in EE

- EE 331: Devices and Circuits I
- EE 341: Signals and systems
- EE 476: Layout!

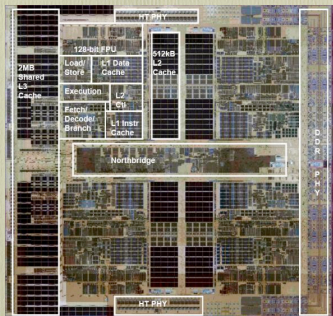
## More Distantly Related Courses

- 401: Compilers
- 451: OS
- 461: Networks

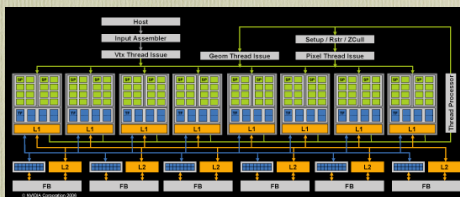
## Rant About Research

- UW CSE is a research-oriented department
- Research is qualitatively different from taking classes
  - Some students with less than stellar grades do excellent research
- Take advantage of the opportunity to see what working on a research team is like

## Motivation for Benjamin's Research



## GPU Block Diagram



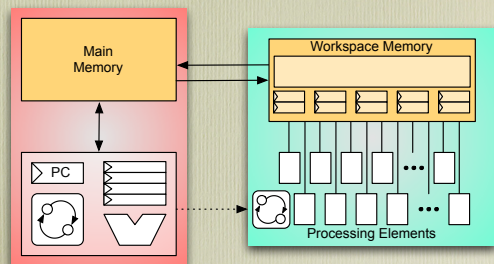
## Some Algorithms Are/Have:

- Many independent operations
- Repetitive
- Predictable
- Many operations per unit of primary input data
- A small working set of data
- A substantial total amount of work

## Accelerators

- These algorithms can be run much faster and more energy efficiently by coprocessor accelerators
  - FPGAs, GPUs
  - $\sim 10\times$  is reasonable for many applications
- Accelerators are much harder to program

## Abstract Programming Models



## Thanks for Your Attention

- Good luck on the final exam
- Have a good holiday