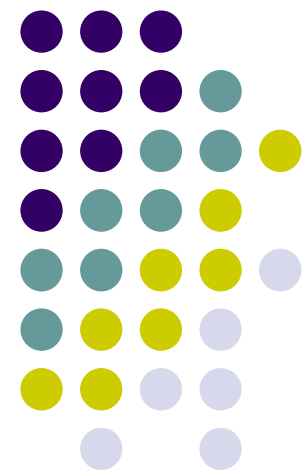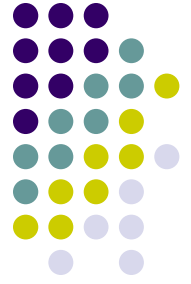# Computer Graphics
# CS 543 – Final Review

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Exam Overview

- Tuesday, December 11, 2012 in-class

- Midterm covered up to lecture 7 (Hierarchical 3D modeling)

- Final covers lecture 8 till today's class (lecture 13)

- Can bring:

  - One page cheat-sheet, hand-written (not typed)

  - Calculator

- Will test:

  - Theoretical concepts

  - Mathematics

  - Algorithms

  - Programming

 - OpenGL/GLSL knowledge (program structure and commands)
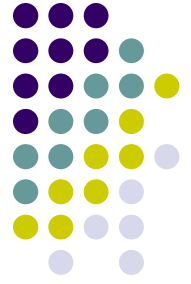
What am I Really Testing?

- Understanding of
  - concepts (NOT only programming)
  - programming (pseudocode/syntax)
- Test that:
  - you can plug in numbers by hand to check your programs
  - you did the projects
 - you understand what you did in projects

General Advise

- **Read your projects** and refresh memory of what you did
- **Read the slides**: worst case – if you understand slides, you're more than 50% prepared
- Focus on **Mathematical results, concepts, algorithms**
- Plug numbers: calculate by hand
- Try to **predict subtle changes** to algorithm.. What ifs?..
- **Past exams**: One sample final is on website
- All lectures have references. Look at refs to focus reading
- Do all readings I asked you to do on your own
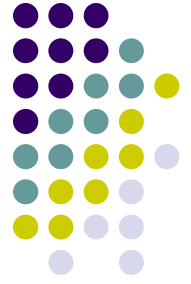
Grading Policy

- I try to give as much partial credit as possible
- In time constraints, laying out outline of solution gets you healthy chunk of points
- Try to write something for each question
- Many questions will be easy, exponentially harder to score higher in exam

Topics
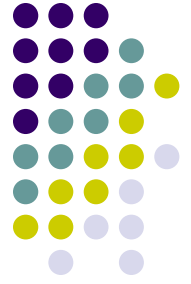
- Lighting, shading and materials
- Shadows and fog
- Texturing
- Image manipulation
- Clipping (2D and 3D clipping) and viewport transformation
- Hidden surface removal
- Rasterization (line drawing, polygon filling, antialiasing)
- Ray tracing