



CS-321 – Computer Graphics

- Dr. Durant
- Email: durant@msoe.edu
- Web: <http://people.msoe.edu/~durant/courses/cs321/>
- Office: CC-27
- Phone: 277-7439



Grading

Labs	35%
Quizzes (most Fridays)	20%
Presentation	10%
Midterm (wk. 5, Fri. 10/8)	15%
Common final (wk. 11, TBD)	20%
Total	100%



Schedule

- Lecture MWF @ 8 in CC-51
- Lab T, 8-11 in CC-51
- Office Hours
 - M @ 10, T @ 2, W @ 9, R @ 3
 - Or, by appointment
 - Or, drop in at almost any time



Textbooks

- Required
 - Donald Hearn and M. Pauline Baker ,
Computer Graphics with OpenGL, 3rd ed.,
Prentice Hall, 2004.
- Recommended Reference
 - Matthia Kalle Dalheimer, *Programming with Qt*, 2nd ed., O'Reilly, 2002.



Course Web Site

- <http://people.msoe.edu/~durant/courses/cs321/>
- Notes and lab assignments posted
- Updates to course outline



Class Notes

- The grading formula applies only to those students who have successfully met the objectives of this course.
- There is a 10% per business day late penalty for all written work and no work will be accepted more than one week late for credit.
- The lowest quiz grade will be dropped.
- You are encouraged to discuss assignments, however, everyone is responsible for doing and turning in their own work. (Sharing source code is not allowed.)
- All lab reports must contain a time log summary.



Course Objectives

1. understand computer graphics hardware, algorithms, and applications
2. understand the design of graphical user interfaces
3. understand and be able to apply concepts of object-oriented programming, inheritance, polymorphism, and event-driven systems
4. be able to apply data structures to the management of computer graphics entities
5. be able to use reference materials to gain knowledge of an unfamiliar software library
6. be able to implement multi-module software systems incorporating components developed by others
7. be able to clarify and document software requirements when specifications are initially incomplete or ambiguous
8. understand the need for extensive internal software documentation, and be able to provide it



Lab Projects

- Individual assignments
- Introduction to Linux (1 week)
- Containers, polymorphism, and inheritance (2 weeks)
- 2-D graphics (4 weeks)
- 3-D graphics (3 weeks)



Individual Presentations

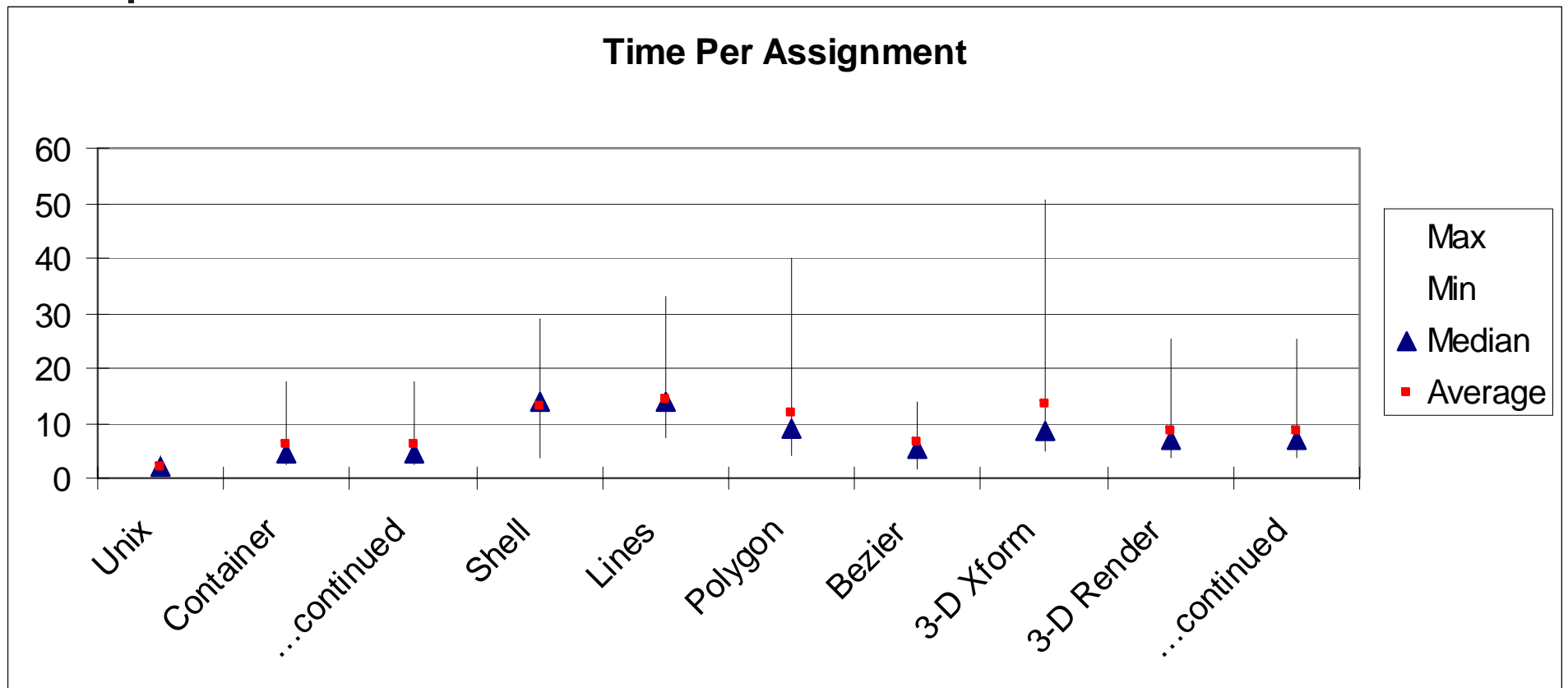
- 5-minute presentation on a computer graphics topic of your choice
- At beginning of class in weeks 8–10
- About 2 presentations per day
- Counts for 10% of final grade
- More details in week 4



Course Topics

- Overview of computer graphics
- Graphics input and output hardware
- Lines and line generation
- Polygons and filling
- Two-dimensional (2-D) transformations
- Windowing and clipping
- 3-D objects
- 3-D transformations
- Projections and depth
- Graphical user interfaces (GUIs)

2003 Time Log Summary



Average of medians: 7.6 hours (including 3 hours in lab)

2002 Time Log Summary

