

CPSC 453 2019F

A guide to reading the textbook in preparation for the final exam

Note: This reading material does not correspond exactly to the material that was covered in class. Focus on the material covered in class (and the tutorials), and the associated material in the class web site.

Lecture	Topic	Textbook (Marschner/Shirely)	Comments
1	Introduction	1	Mainly 1 – 1.4
2	Math background	2.2, 2.3, 2.4.0-2.4.4, 2.5.1, 2.5.6-2.5.9, 2.6, 2.7, 5.0-5.3.0	
3	Graphics output devices	3.0, 3.1.0, 3.1.1.	Useful information is also in http://glprogramming.com/red/chapter01.html
4	Software/hardware interface	17 (especially 17.0-17.10)	
5	Affine transformations in 2D	6.0-6.1.5,	
6	Affine transformations in 3D	6.2.0, 6.3-6.5	
7-8	Viewing and perspective	7	
9	Rasterization	9	
10	Polygon meshes	12.1.0-12.1.3	
11	Shading	10.0-10.2	
12-13	Texture mapping	11.0-11.2.2, 11.3.0, 11.3.3, 11.4	
14-16	Pre-midterm, midterm, midterm results		
17-19	Ray-tracing	4.0-4.4.2, 4.5-4.9, 13	
20-21	Subdivision curves	Not covered in the textbook	Useful papers are http://algorithmicbotany.org/papers/subc.ijsm2003.pdf and http://algorithmicbotany.org/papers/geometric.dcfs2010.pdf (Sections 1-3)
22-23	Parametric curves and surfaces	15.1, 15.2.0, 15.4 15.6.0-15.6.2	
24	Subdivision surfaces		A useful paper is http://algorithmicbotany.org/papers/localspec.agtive2003.pdf (focus on Sections 3.0-3.4)
25	Final review		