

Comp-650/2 W'16: Computer Graphics (Dr. Miles)

Assignments and reading are shown on the day that they're due, unless otherwise noted in parentheses. If no due time is given, it is 15 minutes before class time. On days that follow a Monday, Tuesday, or Friday schedule, this is 11am; on days that follow a Thursday schedule, it's 10:30am.

		Monday	Tuesday	Thursday	Friday
Week 1	Due			<b>12/3 (Fri schedule)</b>	<b>12/4</b>
	Read				
	Class			Course overview & logistics	2D shapes & Python
Week 2	Due	<b>12/7 Tech Setup</b>	<b>12/8</b>	<b>12/10 2D Shapes</b>	<b>12/11</b>
	Read				
	Class	2D shapes & Python	3D shapes	Lab time – 3D shapes	3D shapes
Week 3	Due	12/14 (Wed schedule)	<b>12/15 3D Point Clouds</b>	<b>12/16 (Wed w/ Mon schedule)</b>	
	Read		<b>(Thu schedule)</b>		
	Class	No class	Lab time – 2D transformations	2D transformations	

**(Two weeks of Winter Break – woohoo!)**

Week 4	Due	<b>1/4</b>	<b>1/5</b>	<b>1/7 3D Meshes</b>	<b>1/8</b>
	Read		§4.1–4.2	§B.1–B.5; §C.1–C.6; §4.3	§4.7–4.8
	Class	Transformation matrices	Homogeneous coordinates; Coordinate frames	Scene graphs; 3D transformations	3D transformations
Week 5	Due	<b>1/11</b>	<b>1/12</b>	<b>1/14 3D Transformations</b>	<b>1/15</b>
	Read	§4.9–4.10; [§4.14]; §5.1	§5.2–5.3	§5.5–5.7	
	Class	Camera transformations	Camera transformations	Lab time – Camera transformations (Dr. Miles will not be there)	Color
Week 6	Due	1/18	<b>1/19 Projection Renderer</b>	<b>1/21</b>	<b>1/22</b>
	Read				
	Class	No class (MLK Day)	Raytracing intro; Texturing	Texturing; Normals & lighting	Normals & lighting
Week 7	Due	<b>1/25</b>	<b>1/26</b>	<b>1/28</b>	1/29
	Read				
	Class	3D intersections	Raytracing	Lab time – Raytracing	No class (Wellness Week)
Week 8	Due	<b>2/1 Raytracer</b>	<b>2/2</b>	<b>2/4</b>	<b>2/5</b>
	Read				
	Class	OpenGL pipeline	WebGL, Javascript, GLSL	WebGL, Javascript, GLSL	GLSL vertex shaders
Week 9	Due	2/8	2/9	<b>2/11</b>	<b>2/12</b>
	Read				
	Class	No class (mid-winter break)	No class (mid-winter break)	GLSL fragment shaders	Visible surface determination
Week 10	Due	<b>2/15</b>	<b>2/16 WebGL Mesh &amp; Renderer</b>	<b>2/18</b>	<b>2/19</b>
	Read				
	Class	Animation & interaction	Optimizing your pipeline	Lab time – Animation	Optimization data structures
Week 11	Due	<b>2/22</b>	<b>2/23</b>	<b>2/25</b>	<b>2/26</b>
	Read				
	Class	Demos & work time	Project work time	Demos & work time	Advanced rendering
Extended Period Week	Due	2/29	<b>3/1 (11:30am–1:00pm)</b>	<b>Final project due Wednesday 3/2 @ 10pm</b>	
	Read				
	Class	No class	Final project work time; Course feedback		