

# CS 434 Advanced Graphics and Gaming

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M Jan 7	Topic	Course organization and preview	Aliaga + Popescu
W Jan 9	Advanced Rendering	Depth image approximation of geometry Ray / depth image intersection	Popescu
M Jan 14		Rendering specular reflections <b>A1 out:</b> Fragment shader to intersect depth image with ray, applied to reflections and to rendering surface detail	Popescu
W Jan 16		Rendering geometric surface detail	Popescu
M Jan 21			MLK Day
W Jan 23	Global Illumination	Light transport	Aliaga
M Jan 28			Aliaga
W Jan 30		Radiosity	Aliaga
M Feb 4		<b>A1 due</b> <b>A2 out:</b> Light transport Soft shadows	Popescu
W Feb 6		Ambient occlusion	Popescu
M Feb 11	Modeling	Panoramic imaging: acquisition, registration, construction, rendering	Popescu
W Feb 13		Higher order curves and surfaces	Popescu
M Feb 18		3-D acquisition: triangulation, stereo, structured light	Aliaga
W Feb 20			Aliaga
M Feb 25		<b>A2 due</b> <b>A3 out:</b> Depth from stereo Procedural and inverse procedural modeling	Aliaga
W Feb 27		Procedural and inverse procedural modeling	Aliaga
M Mar 4		Review for midterm	Aliaga + Popescu
W Mar 6		Midterm review	Aliaga + Popescu
M Mar 11		Spring Break	
W Mar 13		Spring Break	
M Mar 18		<b>A3 due</b> <b>Project proposal out</b> Project topic brainstorming	Popescu
W Mar 20		<b>Project proposal due</b>	Aliaga + Popescu
M Mar 25	Animation	Forward and inverse kinematics	Popescu
W Mar 27		Motion capture, field trip	Popescu
M Apr 1		Constant time collision detection	Aliaga
W Apr 3		<b>Mid-way project presentation due</b>	Aliaga + Popescu
M Apr 8	Animation	Fluid simulation	Bedrich

<b>W Apr 10</b>		Particle system simulation	<b>Tricoche</b>
<b>M Apr 15</b>		Gesture-based interfaces	<b>Wachs</b>
<b>W Apr 17</b>		Robots and vision	<b>Culurciello</b>
<b>M Apr 22</b>		<b>Project presentation practice due</b>	<b>Aliaga</b>
<b>W Apr 24</b>		<b>Project presentation due</b>	<b>Aliaga + Popescu</b>