

<b>Dept Number</b>	<b>CS 585</b>		<b>Course Title</b>	<b>Advanced Topics in Computer Graphics</b>						
<b>Semester Hours</b>	<b>3</b>		<b>Course Coordinator</b>	<b>Christos Mousas</b>						
<b>Catalog Description</b>	Study of computer graphics for realistic image synthesis. Object modeling and associated data structures. Advanced rendering techniques such as raytracing and radiosity. Efficiency considerations. Image composition and compression. Current advances and research problems in realistic computer graphics.									
<b>Textbooks</b>										
<b>References</b>										
<b>Course Learning Outcomes</b>										
<b>Assessment of the Contribution to Program Outcomes</b>										
<b>Outcome →</b>	1	2	3	4	5	6	7	8	9	10
<b>Assessed →</b>										
<b>Prerequisites by Topic</b>										
CS 485.										
<b>Major Topics Covered in the Course</b>										
<ol style="list-style-type: none"> <li>1. Overview of 3D graphics and methods in realistic image synthesis</li> <li>2. Introduction to PHIGS</li> <li>3. Reflection and shading models</li> <li>4. Object representation and modeling</li> <li>5. Rendering</li> <li>6. Anti-aliasing</li> <li>7. Ray tracing and methods to enhance realism</li> </ol>										