

Course Syllabus	EECS 4530 – Computer Graphics I
Credits & Contact hours	4 credit hours & Two 100-minute lecture contact hours per week
Coordinator	Dr. Jerry Heuring
Textbook	<p>Dave Shreiner, Graham Sellers, John M. Kessenich, Bill M. Licea-Kane, "OpenGL Programming Guide: The Official Guide to Learning OpenGL, Version 4.3 (8th Edition)", Addison-Wesley Publishing, ISBN 978-0321773036, 2013</p> <p>Rick Parent, "Computer Animation: Algorithms & Techniques", 3rd Edition, Morgan Kaufmann Publishing, 2012, ISBN 978-0-12-415842-9.</p> <p>Access to machines with the Windows platform and a current version of the Visual Studio Programming Environment. Machines must be able to support OpenGL 4.3 or better.</p>
Course Information	<p>An introduction to typical computer graphics systems and their operation. Interactive techniques will be introduced as well as representations and projections of three-dimensional images. Exercises using graphics equipment are assigned.</p> <p>Prerequisite: EECS 1510 or EECS 1500</p> <p>Elective course</p>
Topics	<ol style="list-style-type: none"> 1. Graphics primitives (line drawing, polygons, clipping, antialiasing, etc.) 2. Computer graphics API 3. Motion using 2D and 3D transformations 4. Shading and rendering techniques