FANSHAWE

Engage, Empower, Excite, Educate

COURSE PLAN

Course Information	
Course Title:	Graphics 2
Course Code:	INFO-6020
Program:	GDP1: Game Development – Advanced Programming
School:	ITY
Term:	Winter
Prepared by:	Michael Feeney

The Course Plan provides an outline of topics that support the course learning outcomes and essential employability skills. It also provides an overview with respect to the scheduling of topics, required preparation for each topic and corresponding learning resources and evaluation items. Using the course plan will help you manage your time to get the most from the course and complete the evaluation items on time. Academic calendar dates are posted here.

Time	Topic	Delivery Details: Evaluation
Week 1	Particulate fog and smoke (simple particulate and textured)	
Week 2	Render to off-screen texture	
Week 3	"Deferred rendering", part 1: Basic full-screen, 2 pass, rendering: Full and partial full screen rendering	
Week 4	Basic full-screen effects: colour filtering, blur, basic depth of field, bloom, etc.	
Week 5	Geometry shader introduction	
Week 6	Decals: texture based: splat, bullet holes. Vertex based: grass, fur, and hair	Project #1
Week 7	Mid-term, Project #1	Mid-term Exam
Week 8	Stencil and scissor buffers	
Week 9	Tessellation shader: basics, LOD, and curve based tessellation (LOD also in Gems) Instanced rendering	
Week 10	Deferred rendering, part 2: Light volumes	
Week 11	Bump/Normal mapping	
Week 12	Bitmap shadows	
Week 13	Compute Shader: non-graphics uses and graphical uses ("Forward+" deferred rendering alternative, etc.)	
Week 14	Additional topics as time permits: Ray tracing (RTX/Vulkan), mesh shaders, HDR (High Dynamic Range), etc.	
Week 15	Exam week (Game Jam, Final Exam)	Project #2, Final Exam

Note: The Course Plan may change according to students' learning needs and/or unanticipated disruptions. You will be notified of any significant change via FOL prior to changes being implemented as specified in Policy A113.