

Assignment 3 - Nxtgen game environment / 6 week project (60%)

Will require you to conceive and create a small interactive scene or diorama which will demonstrate a range of skills applied in a typical console environment. Attention to every detail from art direction through to tools, technical choices and an understanding of strict limitations will be paramount to a successful project. The level should be navigable via an interface and contain some small dynamic elements. It will take you through art direction and research through to the creation of assets and their implementation in the Unreal game engine and finally exported to PC

As a games artist you might be expected to build and add on to an established environment and so you are adding content in an established pipeline. The parameters / metrics for the level for the level will be established and we will review them in class

So in this project you get to design and create your own world but it has to be within technical limits already set

Project option: You may choose to use the brief from Sony and marry that with this brief in terms of limits and ambitions.

Secondary art brief: (suggestion)

Peer negotiated work assignment Students will brief peers on producing a small asset for their environment encouraging a team atmosphere whilst giving experience of creating and maintaining a creative brief with timelines and expectations

See creative art direction brief

If this is tried it is non-credit bearing

Interface and camera

- Choose a first person point / third person or RPG view which allows us to explore your interior / exterior
- The choice of Camera will have a huge impact how you will produce your work for example a top down view means you would put most of the detail at the top of the game models

This will be an interactive demo showing your art in context and you should adapt the art to suit the game camera and navigation

Points to consider and technical considerations

- Aim to make the environment feel alive, perhaps through changes in lighting or objects moving when buttons are pressed for example.
- You are responsible for your own space artistically and technically.
- You will have to follow strict metrics, including collisions, geometry and Texture restrictions as well as use of light-maps and simple game states (THESE WILL BE INTRODUCED IN CLASS)
- you will decide on a subject for your project and research suitable reference material, create an art bible and present ideas
- Your subject can be a stylised or realistic interior space, you will then model, texture and light to specific platform requirements
- Export to a Game Engine and then if time allows publish to a PC format.
- To ensure your project is achievable and meets the requirements of the assignment we recommend you choose a subject for which you can obtain good reference material.
- We expect you to push yourself and you should consider choosing a relatively complex environment with a rich mix of materials, textures and lighting.
- You tutor will be able to offer guidance on this when you come to decide on your project

- Next Gen modelling workflow = hi-res modelling and retopo to low poly mesh sampling the differences into normal maps, or the other way round low poly cage to hires and back down
- Texture sizes should be no larger than 2048*2048 which is huge, so we may take them down to 1024*1024, or 512 depending on use all textures need to be a power of 2
- Due to the length of time it can take to make an asset modularity and reuse is essential, you need to identify elements that can be re used and adapted
- Textures are as important as models, the maps we require are, Base colour, Rough, normal and Metal if needed, it doesn't matter how good the model is if the textures are rushed it will only result in substandard looking work
- There must be some examples of tiled textures
- All work will be imported, materials made and meshes assembled in the Unreal
- In Unreal using the grid to snap is essential to quick formation of a level so it is important in Maya to make sure you models line up with the Maya grid Scale = 1 Maya unit = 1 unreal unit, use the Maya grid on powers of two and centimetres
- Poly budgets for a static mesh anywhere between 100 -1400 triangles you use the least amount of polygons possible without compromising the form of the mode
- The more a model is used the lower its overall count should be
- For a larger feature models that appear only once or twice then they can be up to 10,000, a statue in unreal is 10,000 + 4000 for the plinth
- Softer curves and angles produce better normal maps than overly tight chamfers
- Don't forget it's not really Hi poly work, its generous lowpoly work that uses hi poly assets to render out the design onto normal maps"

- Utilise your UV space as efficiently as possible, intelligent use of both polygonal and texture density
- Overlays can either be multiple uvs or poly planes with alpha, again think of reuse
- How walls meet floors and surfaces blend is extremely important
- Remember work with broad strokes and refine – blocking out works from
- Modelling right to texturing
- The Project you choose must contain a range of interesting and detailed surfaces giving you a good challenge with zbrush and or Substance
- Attention needs to be paid to representing a wide range of materials including stone, glass, wood, metal and organic
- There needs to be an example of foliage anything from a tree to hanging ivy
- A written break down of all work involved and estimates of time it will take to
- make each and every element
- It must include an exterior with a small transition to interior or vice versa

Game context

Students negotiate with tutor

Artistry:

You are being judged on your ability to balance the many formal elements that contribute towards the design and creation of your environment

Consider

- Tonal balance between textures on different objects
- Balanced lighting that evokes a mood and contributes to the narrative of the scene.
- Shapes and forms that have sensible distribution of detail throughout so there is a consistent level of detail in the environment as a whole
- Art direction and research underpin and inform your choices, do not rush this

Small environment / Diorama examples below



Guendouar Mihal - Dorenia Old Library environment



01 - Hand made and Zbrush Model 001 - 000001 1



Assignment 1 – Product (60%)

The assessment will test Learning outcomes: K1, K2, K3, I1, I2, S1, S2, S3, S4, T1, T2, T3, T4

This requires students to conceive and create a small interactive scene or Marquette which will demonstrate a range of skills applied in a typical console environment. Attention to every detail from art direction through to tools, technical choices and an understanding of strict limitations will be paramount to a successful project. The level should be navigable and contain some small dynamic player elements.

Assignment 4 – Retrospective / blog and presentation (40%)

The assessment will test Learning outcomes: K1, K2, K3, I1, I2, I3, T1, T2, T3, T4

This requires students to present their work in a professional context for a group discussion and feedback. The presentation should be approximately 20 minutes in length. The aim is to provide detailed insight into the tools and techniques they are learning as well as the creative and technical decisions they make. It is expected that they will provide some critical analysis of their own work in the context of current and emerging theory and practice and draw some conclusions from it.

Marking Scheme: The creation of a Console/PC level quality art asset or environment

- Understanding of art direction / choice of environment / and overall concept 20%
- Advanced sculpting / Modelling / Retopology and baking 20%
- Procedural and PBS work flows for Advanced Materials and textures 20%
- Advanced Lighting and rendering effects 20%
- Understanding of technical and procedural and dynamic systems 20%

A synopsis of the curriculum

This module enables students to develop their understanding of advanced 3D and 2D techniques in the console and PC game space for use in a professional video games environment.

For them to develop a console / PC level with navigation, simple state changes and export to PC format

Outline syllabus:

- Advanced Modelling, Sculpting and retopology tools
- Baking for Advanced texturing and materials
- Procedural and PBS workflows for Advanced Materials and textures
- Advanced Lighting, Environment systems and rendering effects
- Procedural and hand crafted Organic foliage modelling and world building

The intended subject specific learning outcomes

On successful completion of this module, students will have Knowledge & Understanding (K) of...

K1 - Procedural and hand crafted processes and techniques involved in the creation of visually immersive and engaging video games

K2 - The review and exploration of trends in high end games production and the factors that influence the generation of artistic assets

K3 - The relationship between code, design, art and efficient pipelines.

On successful completion of this module, students will have Intellectual (I) Skills in...

I1 - Critically evaluating artistic and technical solutions in relation to complex console and PC level development issues.

I2 - Employing agile practices in a project context distinguishing issues relating to peer schedules and the critical pathways of production

On successful completion of this module, students will have Subject Specific (S) Skills in...

S1 - Utilising game engine lighting to reflect design, aesthetic and functional effects of a game level.

S2 - Creating advanced materials and textures within the constraints of console and PC development

S3 - Creating and using art and design bibles for the process of constructing visual tools to inform production and exploring procedural systems for the creation real time content

12. The intended generic learning outcomes

On successful completion of this module, students will have Transferable Skills in...

T1 - Designing, planning and delivering a project that can adapt to meet a strict set of industry objectives within time and in technical budget

T2 - Communicating and presenting to a variety of audiences in a technical and creative context

T3 - Briefing and scheduling of peers and providing critical feedback

T4 - Research-based problem solving that encompass design, art and technical disciplines