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ART CONTEMPORANI

Dades generals

- **Codi de l'assignatura:** 201114
- **Estudis:** Creació Artística per a Videojocs i Jocs Aplicats
- **Curs acadèmic:** 2017-2018
- **Descripció breu:** Understanding Art pipeline preparation and definition, advanced modeling, sculpting and texturing as well as PBR workflow.
- **Crèdits ECTS:** 6
- **Idioma principal de les classes:** anglès
- **S'utilitza oralment la llengua anglesa en l'assignatura:** yes
- **S'utilitzen documents en llengua anglesa:** yes
- **Durada:** semestral
- **Curs:** segon
- **Semestre:** 3S
- **Professorat:** Ben Kleber

Competències

Bàsiques i generals

Competències bàsiques:

[CB1] Que los estudiantes hayan demostrado poseer y comprender conocimientos en un área de estudio que parte de la base de la educación secundaria general, y se suele encontrar a un nivel que, si bien se apoya en libros de texto avanzados, incluye también algunos aspectos que implican conocimientos procedentes de la vanguardia de su campo de estudio.

[CB4] Que los estudiantes puedan transmitir información, ideas, problemas y soluciones a un público tanto especializado como no especializado.

Competències generals:

[CG4] Capacidad de formular, diseñar y gestionar proyectos y de buscar e integrar nuevos conocimientos y aptitudes desde la Creatividad.

Específiques

[CE2] Aprender los paradigmas de creación artística para su posterior aplicación vía medios digitales.

[CE4] Emplear lenguajes de creación artística para la realización de producciones digitales.

Resultats d'aprenentatge

[RA1] Reflexiones , perspectivas y cartografías sobre el arte internacional desde 1945 : el discurso crítico y las políticas culturales

[RA2] El debate sobre el proyecto moderno: teoría de la vanguardia , autonomía del arte, cultura de masas , desmaterialización del objeto artístico y realidad

[RA3] El paradigma de la diferencia sexual más allá del canon patriarcal : teoría feminista y prácticas artísticas contemporáneas

[RA4] Postmodernidad : un nuevo marco de debate sobre la cultura y la producción visual desde los años ochenta

Continguts

Descripció

This will be a hands-on course that will put emphasis on the practical use and application of particularly 3D authoring, such as texturing and sculpting programs. A strong focus will be put on the most crucial aspects of the content creation pipeline, from the art definition and planning phase through prototyping and a more rigorous art pass.

The theoretical part of this course will mostly be limited to the initial steps of familiarisation with methods and practices of laying out an art definition document, art prototyping and layout concepts, as well as physically based rendering (PBR) and lighting and colouring. Such concepts will immediately be backed up with strong practical examples and work in class lab sessions.

Índex

1. introduction to the Course and Art Definition
2. Prototyping and Layouting, Unity Recap
3. High poly modelling & sculpting: 3ds max and Mudbox Introduction
 - 3.1. High poly topology and mesh flow
 - 3.2. Basic Mudbox workflow
 - 3.3. Advanced Mudbox workflow
4. Texturing and PBR: 3D texturing and Substance Painter
 - 4.1. Basic Substance introduction and workflow
 - 4.2. Automation and smart materials
 - 4.3. Advanced Substance workflow
5. Project mentoring

Metodologia docent

The following teaching methodology will be used in classes of this course:

- Exercises: Students will perform hands-on exercises together with the professor in class
- Lecture: Theory as well as practical examples will be delivered in lecture format by the professor at the start of each new learning subject
- Assessment tasks: Learned subjects (modelling, texturing in Painter etc.) will be assessed with tasks given and started during class and finished in students' own time
- Mentoring: Students will be mentored during the project group phase

Activitats formatives

Activitat	Tipus	Hores amb professor	Hores sense professor	Total
Lecture	Presencial	6	0	6
Exercise	Presencial/Treball dirigit	12	0	12
Assessment task	Presencial	2	0	2
Study	Aprenentatge autònom	0	10	10
Project Work	Presencial / Treball dirigit	40	80	120
		60	90	150

Avaluació i qualificació

Avaluació Continuada

The course will assess students' ability through practical assessments as well as project course work. The assessments will test individual competencies, and as such will commence at the beginning of each learning phase. They are:

AA1x

AA1a: Art definition, Planning and production preparation

AA1b: 3D modeling basic assessment

AA1c: 3D high poly modelling and sculpting assessment

AA1d: 3D texturing / PBR

AA2

At this stage, students should demonstrate their understanding of art pipelines and the initial conception phase (definition document that is project-specific and its implementation/distribution of tasks among the art team). Since the art duties will be performed by only a single person per team, it is important to assess the individuals work on this phase in conjunction with the dev team, in lieu of working with other artists (that is, the definition document's scope should encompass every aspect of the artistic direction, but the execution will primarily be concerned with the tasks most crucial to the project as performed by the artist). While this task will be evaluated during pitch, final marks for the definition document will be awarded at the prototype phase (see below), so it is expected to have a vision ready during pitch, but as the document will most likely be amended and changed, a final submission should be handed in during prototype.

- References
- Style outline and justification
- Technical documentation
- Subsection dedicated to environmental concerns
- Subsection dedicated to character/object concerns
- Subsection dedicated to menus and style guide
- The definition document should, at minimum, contain 30 pages/slides
- Group presentation in front of class

AA3

In addition to the definition document (see above), what will be assessed during this phase is the use of prototype art (placeholder assets, development textures such as those for scale/textel density/lightmap resolution, basic lighting). The art at this stage should reflect an early implementation of the art definition document principles and go in accordance with overall game design and mechanics. Students should also be able to demonstrate a good sense of scale and the processes involved in prototyping, such as rapid iteration and quick change of individual elements that make up the game world.

- Show a good understanding of scale and spacing, through development textures, guides, placeholder items etc.
- Show a first basic lighting setup

- Have enough placeholder assets or early assets in place to allow for a basic playthrough, assets should show placing of the eventual final art logically

AA4

A presentation of the prototype in front of a panel should follow the principles discussed thus far. Students should be ready to justify artistic decisions made and constituent prototype elements implemented.

Sistema avaluació continuada				
Id	Competència/es associades	Calendari	Tipus d'activitat	Descripció de l'activitat
AA1_avg	[CB1], [CE2], [CE3]	Week 6	Individual	The tools learning phase will include 4 short assessments for each of the major topics covered: art prep, 3D modelling/sculpting, and texturing, to be handed in by week 6
AA2	[CB4], [CG4]	Week 10	Group	Pitch phase: Presentation of art pre-planning, art definition document and selection of references
AA3	[CG4]	Week 15	Group	Prototype: Assessment on setup and use of placeholder and measuring assets, scaling and use of development textures
AA4	[CG4]	Week 15	Group	Presentation of the project in prototype (playable) state

Càlcul de la nota final:

$$\text{Nota final [avaluació]} = 0.3 [\text{AA1_avg}] + 0.2 [\text{AA2}] + 0.2 [\text{AA3}] + 0.3 [\text{AA4}]$$

$$\text{AA1_avg} = \text{average} (\text{AA1a}, \text{AA1b}, \text{AA1c}, \text{AA1d})$$

Criteris:

- The grade for an unsubmitted activity is 0
- If $[\text{AA1_avg}] < 4$, then Nota final [avaluació] will be at most 4
- If $[\text{AA4}] < 4$, then Nota final [avaluació] will be at most 4

Reavaluació

Sistema avaluació continuada: reavaluació					
Avaluació		Reavaluació			
Id	Tipus d'activitat	Id	Calendari	Tipus d'activitat	Observació
AA1_Avg	Individual	AR1_avg	Reavaluació	Individual	Tasks may be re-submitted
AA2	Group	AR2	Reavaluació	Group	Project pitch presentation may be given to professor at a time specified
AA3	Group	AR3	Reavaluació	Group	Project may be re-submitted
AA4	Group	AR4	Reavaluació	Group	Presentation may be given to professor at at time specified

Càlcul de la nota final:

$$\text{Nota final [reavaluació]} = 0.3 [\text{AR1_avg}] + 0.2 [\text{AR2}] + 0.2 [\text{AR3}] + 0.3 [\text{AR4}]$$

AR1_avg = average (AR1a, AR1b, AR1c, AR1d)

Criteris:

- If an assessment activity [reavaluació] is not submitted, it will take the corresponding [avaluació] grade
- If [AR1_avg] < 4, then Nota final [reavaluació] will be at most 4
- If [AR4] < 4, then Nota final [reavaluació] will be at most 4

Avaluació única

The tasks for the single evaluation correspond with those given in the continuous evaluation and are performed solely by the individual. It is the student's responsibility to ensure all additional requirements (code base, project management, design..) of the project are met.

Sistema d'avaluació única				
Id	Competència/es associades	Calendari	Tipus d'activitat	Descripció de l'activitat
AU1x	[CB1], [CE2], [CE3]	Week 15	Individual	4 tasks for each of the main disciplines of the syllabus: art prep, 3D high poly modelling & sculpting, 3D texturing
AU2	[CB4], [CG4]	Week 15	Individual	Pitch phase: Evaluation of a art pre-planning document for a project not performed as group work. Individual presentation must be given.
AU3	[CG4]	Week 15	Individual	Prototype phase: Submission of project prototype assets and setup within engine environment
AU4	[CG4]	Week 15	Individual	Presentation of the project in a playable state.

Càlcul de la nota final:

$$\text{Nota final [avaluació]} = 0.3 \cdot [\text{AU1_avg}] + 0.2 [\text{AU2}] + 0.2 \cdot [\text{AU3}] + 0.3 \cdot [\text{AU4}]$$

$$\text{AU1_avg} = \text{average (AU1a, AU1b, AU1c, AU1d)}$$

Criteris:

- The grade for an unsubmitted activity is 0
- If $[\text{AA1_avg}] < 4$, then Nota final [avaluació] will be at most 4
- If $[\text{AA4}] < 4$, then Nota final [avaluació] will be at most 4

Revaluació

Sistema avaluació única: revaluació					
Avaluació		Revaluació			
Id	Tipus d'activitat	Id	Calendari	Tipus d'activitat	Observació
AU1_avg	Individual	ARU1_avg	Reevaluation	4 tasks for each of the main disciplines of the syllabus: art prep, 3D high poly modelling & sculpting, 3D texturing	Tasks may be re-submitted
AU2	Individual	ARU2	Reevaluation	Pitch phase: Evaluation of a art pre-planning document for a project not performed as group work. Individual presentation must be given.	The document may be re-submitted
AU3	Individual	ARU3	Reevaluation	Prototype phase: Submission of project prototype assets and setup within engine environment	Assets and project files may be re-submitted
AU4	Individual	ARU4	Reevaluation	Presentation of the project in a playable state.	Document may be re-submitted

Càlcul de la nota final:

$$\text{Nota final [avaluació]} = 0.3 [\text{ARU1_avg}] + 0.2 [\text{ARU2}] + 0.2 [\text{ARU3}] + 0.3 [\text{ARU4}]$$

$$\text{ARU1_avg} = \text{average} (\text{ARU1a}, \text{ARU1b}, \text{ARU1c}, \text{ARU1d})$$

Criteris:

- If an assessment activity [revaluació] is not submitted, it will take the corresponding [avaluació] grade
- If $[\text{ARU1_avg}] < 4$, then Nota final [revaluació] will be at most 4
- If $[\text{ARU4}] < 4$, then Nota final [revaluació] will be at most 4

criteris específics de la nota No Presentat:

Es considerarà un alumne no presentat quan no es presenti a cap activitat d'avaluació

Bibliografia

Bàsica:

- Holistic Game Development with Unity: An All-in-One Guide to Implementing Game Mechanics, Art, Design and Programming, A K Peters/CRC Press; 1 edition (November 17, 2011), ISBN-13: 978-0240819334
- (On-line Reference) Unity Learning Resources @ <https://docs.unity3d.com/es/current/Manual/index.html>
- Digital Sculpting with Mudbox: Essential Tools and Techniques for Artists, Focal Press; 1 edition (April 28, 2010), ISBN-13: 978-0240812038
- (On-line Reference) Mudbox Resources @ <http://docs.autodesk.com/MBXPRO/2018/ENU/#!/url=../files/mePortal.htm>
- (On-line Reference) Substance Painter References @ <https://support.allegorithmic.com/documentation/display/SPDOC/Substance+Painter>

Complementària:

- Stylization with a Purpose the Illustrative World of Team Fortress 2, Jason Mitchell, Valve, 2008

Altres recursos:

-

Assignatures recomanades

-

Altres

- El sistema d'avaluació per defecte és l'avaluació contínua. Si vols acollir-te a l'avaluació única, ho has de comunicar per escrit al professor de l'assignatura i al coordinador de grau durant les dues primeres setmanes del semestre
- El calendari de les activitats d'avaluació és orientatiu. El professor concretarà el dia, hora i canal de lliurament de l'activitat durant el curs i amb una antelació suficient