Course guide
804354 - NAVETR - Narratives for Real-Time

Last modified: 07/02/2025

Unit in charge:	Image Processing and Multimedia Technology Centre
Teaching unit:	804 - CITM - Image Processing and Multimedia Technology Centre.
Degree:	BACHELOR'S DEGREE IN MULTIMEDIA STUDIES (Syllabus 2009). (Optional subject).
	BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Optional subject).
	BACHELOR'S DEGREE IN DESIGN, ANIMATION AND DIGITAL ART (Syllabus 2017). (Optional subject).

Academic year: 2024   **ECTS Credits:** 6.0   **Languages:** Spanish

LECTURER

Coordinating lecturer:	Marta Fernández
Others:	Marta Fernández
	Pedro Omedas

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CEAAD 9. Acquire the practical foundations of programming and apply them to tools or engines for the automation of tasks, prototyping and development of interactive audiovisual productions.
CEAAD 8. Relate and apply the principles of audiovisual narrative and use the various associated techniques.
CET 27. Be able to demonstrate the ability to create and modify 3D virtual environments for a multimedia application, using digital technologies.

Transversal:
05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.
06 URI. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.
07 AAT. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.

TEACHING METHODOLOGY

- Master class. The teacher delivers the content and describes the materials (work plan, notes, presentations, links, exercise statements, etc.) that will be used along the course or for the student's autonomous work. In master classes students can participate, usually asking questions about the content taught by the teacher and taking notes.

- Laboratory practice. Students work on developing complex exercises or practices proposed by the teacher. This work is carried out during the classes and guided and supervised by the teacher.

- Case studies. The teacher presents both in oral and written format an example of a specific project, topic or practice related to the contents that are being taught in the course. The case studies describe the problem and provide data.

- Project-based learning. Students apply the knowledge learned in other courses and look for information, discuss with the teacher and acquire knowledge that can implement in the project. A part of this project development work takes place during classes. In this case the work is guided and supervised by the teacher. Another part is developed inside a team, during class hours or during autonomous work hours. Finally, another part is individual work for later sharing.

- Autonomous work. Students work independently, outside of class hours, studying, reading, solving exercises or problems, developing practices.

LEARNING OBJECTIVES OF THE SUBJECT

- Understanding of the elements of interactive storytelling in video games. Ability to apply these methods and techniques in the development of video games.

- Development of an interactive graphic application in real time for any medium, platform and device.

- Understanding and being able to explain how a game engine works.

- Reading comprehension when reading documents written in English and related to the course, such as notes, scientific articles, popular articles, web pages, etc.

- Clear and efficient communication in both oral and written presentations. Adapting the presentations to the type of audience and the communication goals using the appropriate strategies and means.

- Directing work groups, solving possible conflicts, evaluating the work done with other people and evaluating the effectiveness of the team as well as the presentation of the results generated.

STUDY LOAD

Type	Hours	Percentage
Guided activities	20,0	13.33
Hours medium group	40,0	26.67
Self study	90,0	60.00

Total learning time: 150 h

CONTENTS

Theme 1. Interactive Storytelling

Description:
- Properties of interactive digital environments
- The myth of the Holodeck: agency and immersion
- Non-linear and multiform stories
- Structured and emergent narrative
- Narrative design: fictional worlds, backstories, character sheets, dialogues, flowcharts

Full-or-part-time: 39h
Practical classes: 10h
Guided activities: 6h
Self study : 23h

Tema 2. Interactive Narrative, Mediatic Context and Emerging Technologies

Description:
- Industry 4.0
- Media convergence.
- XR: from narrativity to experientiality.
- AI: computational creativity and automatic story generation.
- Sensors and adaptive narratives.

Full-or-part-time: 29h
Practical classes: 8h
Guided activities: 6h
Self study : 15h

Tema 3. Virtual Production

Description:
- Machinima, digital puppets and real-time animation.
- Virtual production as a paradigm in the audiovisual production cycle (changes in the production pipeline, benefits compared to traditional audiovisual production, types of virtual production).
- Applications of virtual production (audiovisual fiction, performing arts, museums, interactive installations, digital twins, serious applications).

Full-or-part-time: 19h
Practical classes: 4h
Self study : 15h

Tema 4. Prototyping and Experience Testing of Interactive Narrative

Description:
Conceptualization and development of an application that simulates an interactive narrative experience.

Full-or-part-time: 63h
Practical classes: 22h
Self study : 41h

ACTIVITIES

Assignment 1

Description:
Group activity consisting of the conceptualization and narrative development of an interactive experience developed by means of a game engine.

Full-or-part-time: 15h
Self study: 5h
Practical classes: 10h

Assignment 2

Description:
Intermediate presentation of the project.
Delivery of the alpha version of a prototype implementing the designed narrative experience.

Full-or-part-time: 22h
Practical classes: 22h

Assignment 3

Description:
Delivery of the final interactive narrative prototype.

Full-or-part-time: 30h
Practical classes: 30h

GRADING SYSTEM

- Mid-term exam: 25%
- Assignment 1 (interactive project conceptualization and narrative development): 20%
- Assignment 2 (intermediate presentation of the project and alpha version of the prototype): 20%
- Assignment 4 (final presentation of the project and alpha version of the prototype): 25%
- Attitude towards learning: 10%

Students' learning attitude will be evaluated by monitoring their interventions and activities developed during the class sessions.

Irregular actions that may lead to a significant variation of the grade of one or more students constitute a fraudulent performance of an evaluation act. This action entails the descriptive grade of failure and a numerical grade of 0 for the ordinary global evaluation of the course, without the right to re-evaluation.

If the lecturers have indications of the use of AI tools not allowed in the evaluation tests, they may summon the students concerned to an oral test or a meeting to verify the authorship.

EXAMINATION RULES.

- Once completed, the activities must be delivered to the Virtual Campus in the corresponding delivery and on the corresponding date.

- Students will dedicate autonomous work time (outside class hours) to carry out these activities.

- The evaluation of the activities does not only imply their resolution, but also the presentation of the results (when the student or the group is required to do so during the classes).

- The documents must be completed following the instructions given, especially with regard to the names of the files and the content structure. The correct management of the documentation provided is an aspect related to the skills to be acquired and is, therefore, subject to evaluation.

BIBLIOGRAPHY

Basic:
- Koenitz, Hartmut; Ferri, Gabriele; Haahr, M; Sezen, Digdem y Sezen, Tonguc Ibrahim. Interactive Digital Narrative. History, Theory and Practice. Routledge, 2017.
- Murray, Janet. Hamlet on the Holodeck. Updated Edition. The MIT Press, 2017.
- Sharples, Mike; Pérez y Pérez, Rafael. Story Machines: How Computers Have Become Creative Writers. London y Nueva York: Routledge, 2022.
- Koenitz, Hartmut. Understanding interactive digital narrative : immersive expressions for a complex time. Routledge, 2023.
- Short, Tanya; Adams, Tarn. Procedural Storytelling in Game Design. CRC Press, 2019.
- Nicklin, Hannah. Writing for games: Theory and Practice. CRC Press, 2022.

RESOURCES

Other resources:
Additional recommended bibliography:

- Bittanti, M. Machinima is not a Game. Matteo Bittanti's Blog.

- Coto Bautista, J. (2021). Personas y Dados. Una guía para diseñar juegos de rol. HT Games Publishers.

- Cuadrado, A. y Planells, A. (2020). Ficción y videojuegos. Teoría y Práctica De La Ludonarración. UOC Press.

- Deterding, S. y Zagal, J. (2024). Role-Playing Game Studies: Transmedia Foundations. Routledge.

- Fernández-Vara. C. (2020). Elecciones. Diseño narrativo de decisiones y ramificaciones. En Navarro Remesal, V. (Ed.). Pensar el Juego. 25 Caminos para los Game Studies. Ludografías. Shangrila.

- Lowood, H. y Nitsche, M. (2011). The Machinima Reader. The MIT Press.

- Manovich, L. (2024). Artificial Aesthetics: Generative AI, Art and Visual Media. https://manovich.net/index.php/projects/artificial-aesthetics

- Martín Núñez, M. y Porta Pérez, A. (2022). Puzles dramáticos. Decisiones críticas, dilemas éticos y narrativas complejas en el videojuego. Con A de Animación, 14, 40 - 57.

- Short, T. y Adams, T. (2019). Procedural Storytelling in Game Design. Routledge.

- Suter, B., Bauer, R., Kocher, M. (2021). Narrative Mechanics. Strategies and Meanings in Games and Real Life. Transcript.

- Twelves, K. (2021). Técnicas de Improvisación para Juegos de Rol. Shadowlands.

Other resources:

- Fernández-Vara, C. Narrative Choices Taxonomy. https://clarafv.itch.io/taxonomia-de-elecciones-narrativas

- https://assetstore.unity.com/ />

- https://www.cgtrader.com/free-3d-models />

- https://freesound.org/ />