Universidad de Navarra

Virtual reality in evaluation and intervention (Psicología)

Guía docente 2026-27

Description

Virtual Reality (VR) is trending. This (not so new) technology creates computer-generated scenes that aim to create a “real world” experience. This ability to simulate real life situations opens up a world of possibilities, especially when it comes to research. In this research-oriented course, students will learn the basic principles of virtual reality VR, as well as how it is becoming a fundamental tool when examining how our brain and mind works.

VR has transcended its origins as a novel technological curiosity, establishing itself as a robust tool with profound implications for psychological research, clinical assessment, and therapeutic intervention. Its primary benefit lies in its capacity to create highly immersive, controlled, and repeatable environments that closely mimic real-world scenarios. This capability significantly enhances the ecological validity of studies, allowing for assessments and interventions that elicit physiological and psychological responses consistent with those observed in daily life.

This course is designed to provide a rigorous and practical understanding of how VR can be effectively applied within the diverse landscape of psychological science. Also, hands-on sessions will allow the students to experience VR in the context of research studies and explore use cases of VR as a tool for conducting scientific research and the creation of real-world applications. In the end, students will work to develop their own hypothetical VR research study.

- **Degree**: Psychology
- **Type**: Optional
- **ECTS**: 3
- **Semester**: 2º
- **Language**: English
- **Title**: Virtual Reality in Evaluation and Intervention
- **Professor**: Dr. Luis Eudave
- **Time**: Mondays, 17.00h - 18.30h
- **Place**: Seminario 14 (Amigos Bd.)

Basic and General Competencies

- Analyze messages, ideas, and theories, and relate them to prior knowledge on the subject (CG1)
- Establish satisfactory interpersonal relationships with initiative, active listening, and ethical commitment (CG5)
- Adapt to new situations creatively (CG6)
- Students will demonstrate knowledge and understanding in an area of study that builds upon general secondary education and is typically at a level that, while supported by advanced textbooks, also includes aspects involving knowledge from the forefront of their field of study (CB1)
- Students will be able to communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences (CB4)

Specific Competencies

- Understand the mechanisms of attention and perception, grasping the main problems raised in their study and the responses given from various theoretical approaches (CE13)

Objectives

At the end of this course, the student will be able to:

- Understand VR and other immersive tools' application in psychological evaluation and intervention

- Know how VR creates immersive environments, its current capabilities, and its limitations
- Understand how diverse research areas are employing VR in psychology
- Conceptualize, design, and ethically consider VR-based psychological experiments and interventions

Program

1) Foundational Principles of VR and Psychological Science (4 sessions)

- Introduction to Virtual Reality: Concepts, History, Technologies, and Immersion
- Core Principles of Psychological Evaluation and Intervention in the Digital Age
- Ethical Considerations and Best Practices in VR Psychology
- Experimental Design and Research Methods in VR Environments

2) Psychology VR Lab (6-7 sessions)

3) Developing and Presenting a VR Experiment Proposal (2 sessions)

Formative activities

Weekly lessons (20h):

Lessons will involve an theoretical overview of specific areas in Psychology and how VR is used to solve specific problems.

Psychology VR Lab (15h):

It will include live demonstrations where students must take part, either as “researchers” or “participants”. Also, students will be introduced to Unity, one of the most used game-engines for VR development and where we’ll be able to see how VR experiments are built.

VR research study (15h):

In this individual activity, students will develop their own ideas for a research study, including the conceptual design of a VR task. This will be evaluated with an oral "lightning talk" at the end of the course.

Evaluation Criteria

1) Participation in Psychology VR Lab – 30%

2) VR research study proposal - 40%

3) Exam – 30% - **(DATE: December 11th, 12.00h)**

*) *Re-sit Exam*: In case of failing this course (final grade < 5) a re-sit exam will be available. The exam will count 50% of the final grade and VR proposal the remaining 50%. (**DATE: June 18th, 9.00h**)

ATTENTION: Please remember that any attempt at fraud, copying, plagiarism or other irregular behavior represents a serious infraction as contemplated in title IV "Rules of academic discipline for students" within the System of rules on coexistence at the University of Navarra

Students with **specific educational support needs** must contact the **Faculty's Academic Coordination Office** beforehand to obtain authorization for any necessary accommodations (for example, extra time on exams). This authorization must then be sent by the student to the professor. It is recommended that this process be completed at the beginning of the semester.

Contact

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For queries or appointments please write to **leudave@unav.es - Office 1410**

References and Materials

There will be no textbook for this course. Relevant papers and documentation for each lesson will be provided.