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VIC Project – Deliverable Template

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Deliverable description: Develop the curriculum for the Advanced Training Program in Immersive Technologies and Artificial Intelligence (60 ECTS). This includes defining the course structure, identifying modules, and integrating both theoretical and practical components relevant to XR design, development, and application in various fields.

Deliverable type: Report

Lead beneficiary: EUNEIZ

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1. Executive summary

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This report presents the **design and structure** of the Advanced Online Training Program in Extended Reality (XR), concretely named “**Advanced Training Program in Immersive Technologies and Artificial Intelligence**”, developed within the framework of the VIC Project. The programme aims to **address Europe’s digital skills gap** by training future XR and immersive technologies specialists, fostering collaboration between academia, industry, and research institutions. The curriculum is composed of **a set of foundational, and applied courses** that cover technical, creative, and ethical dimensions of immersive technologies.

Key outcomes include a comprehensive **course catalogue**, a balanced **allocation of ECTS** across the academic year, and **the integration of practical experiences** such as a final global project. The programme is expected to deliver highly skilled graduates ready to contribute to Europe’s innovation ecosystems, while promoting inclusivity, sustainability, and alignment with EU digital transformation strategies.

2. Introduction

Extended Reality (XR) and immersive technologies are transforming multiple sectors—from industry and healthcare to education, culture, entertainment and so on. The demand for professionals with XR expertise continues to grow, yet current higher education offerings remain fragmented and insufficient.

The VIC Project seeks to bridge this gap by designing **a cutting-edge Advanced Training Programme** that provides learners with the necessary technical competencies, creative skills, and ethical grounding to thrive in this emerging field. Importantly, the programme is **intended to be accessible to a wide range of prospective students**. It does not require a computer science background or advanced technical knowledge as a prerequisite. **The input profile is deliberately broad**, welcoming candidates from diverse backgrounds such as technology, the arts, design, consulting, business, education, and related fields. This openness ensures that the programme can attract

and prepare both technically oriented learners and those with creative or strategic expertise, fostering interdisciplinary collaboration and innovation.

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The curriculum has been carefully designed to balance **foundational knowledge, technical skills, applied global project, and ethical reflection**. We believe that strategies based in **project-based learning, active methodologies and learning by doing** are the way to go. Students will progress through a wide variety of courses as we detail later.

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Our graduates may work in research, development, advanced design, and IT system management. They may be freelancers, employed in manufacturing or service companies, or hold roles in public administration. Main sectors include hardware/software, automation, robotics, consulting, and IT services.

In fact, this programme can be considered **and excellent onboarding** phase for the master's being designed under this same project.

The programme will be jointly offered by all the academic partners in the VIC Project and the format will be **online**.

This report documents the design process, the course structure, and the pedagogical underpinnings of the programme, while also considering its relevance and impact.

3. Work description

The development of the **advanced training programme in Immersive Technologies and Artificial Intelligence** followed a multi-stage approach ensuring both academic rigor and strong alignment with European priorities.

1. **Benchmarking of Existing Programmes** – As a first step, an extensive research phase was conducted to analyse comparable programmes across Europe and beyond. We took profit of the institutions being reviewed in the previous phase regarding the master's degree. In total, nearly 20 programmes were studied, spanning countries such as *Spain, France, Portugal, Austria, Bulgaria, Italy, Ireland, and the UK*. This benchmarking exercise allowed the consortium to identify current trends, best practices, and recurring limitations in existing curricula.

2. **Curriculum Design** – Based on this analysis, a comprehensive set of courses was designed, structured into **foundational**, **technical**, and **applied** categories. The curriculum covers core areas such as *Foundations and Applications of Virtual and Augmented Reality*, *Introduction to Computer Graphics and 3D Modelling*, and *Principles of Artificial Intelligence for Immersive Systems*. It also integrates cross-disciplinary subjects like *Human–Computer Interaction and Usability*, *Cybersecurity in Virtual and Innovation*, *Ethics and Regulation in Immersive Technologies*, among others.

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3. **Integration of Applied Experiences** – The programme is not limited to theory. It incorporates **applied practice** through an applied project module. **Project-based** and **learning by doing methodologies** will be applied.
4. **Alignment with European Priorities** – The curriculum has been designed in line with EU strategies for digital transformation, inclusivity, and sustainability. By combining Immersive Technologies with Artificial Intelligence, the programme not only addresses the current skills gap but also anticipates future industry demands.

Key lessons learned include:

- Many programmes remain **narrowly focused on VR/AR**, without a strong integration of Artificial Intelligence.
- **Innovation management and ethical reflection** are rarely addressed explicitly, despite their growing importance in industry and society.
- Some curricula are **overly technical**, limiting access for students from non-computer science backgrounds and hindering interdisciplinarity.
- Opportunities for **hands-on practice** (labs, applied projects) are not always systematically embedded.

These learnings influenced the design of the VIC Advanced Training Programme. Now we can focus on the results.

4. Results and achievements

The design process of this **online programme** has resulted in a comprehensive curriculum that balances technical depth, creative practice, applied experiences, and

ethical reflection. The programme has a total workload of **60 ECTS** spread across one academic year, divided into 2 semesters.

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Students acquire a solid foundation in immersive technologies, computer graphics, artificial intelligence, and human–computer interaction. They begin with *Foundations and Applications of Virtual and Augmented Reality*, which introduces the history, principles, and contexts of immersive media. Parallel to this, *Introduction to Computer Graphics and 3D Modelling* equips students with the fundamentals of digital representation and modelling for real-time environments. The programme also integrates *Principles of Artificial Intelligence for Immersive Systems*, allowing students to grasp how AI can shape immersive experiences, and *Human–Computer Interaction and Usability*, which emphasizes user experience design. To ensure robust digital literacy, *Cybersecurity in Virtual and Augmented Environments* addresses data protection, privacy, and system vulnerabilities in XR contexts. Additional courses include *Virtual Reality Hardware and Systems*, which examines the technical underpinnings of XR devices. Social, motivational and collaborative aspects are introduced through *Playful Collaborative and Social Virtual Environments*, while the *Innovation, Ethics and Regulation in Immersive Technologies* course, highlights critical thinking on legal and societal implications. At the end, students undertake their *Applied Project*, which allows them to specialize, conduct independent research, or collaborate with industry partners on practical challenges.

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Taken together, the results of the curriculum design ensure that graduates leave the programme with **a multidisciplinary skill set** because they are technologically competent, creative in design, aware of human and ethical dimensions, and capable of innovating at the intersection of Immersive Technologies and Artificial Intelligence while applying motivational constraints to the designs. Students will be **graded for each module**.

The **selection of candidates** for this programme involves proof of knowledge of the English language besides a curriculum vitae.

If we take the courses one by one:

Foundations and Applications of Virtual and Augmented Reality (6 ECTS)

Introduces the fundamental concepts, history, and applications of immersive technologies. Students explore how VR and AR have evolved, their main use cases across industries, and the core principles underlying their design and development.

Learning outcomes:

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- Explain the historical evolution and principles of VR and AR.
- Identify key applications of immersive technologies across sectors.
- Distinguish between hardware and software requirements for VR/AR.
- Assess the limitations and opportunities of current immersive systems.
- Explore specific software engineering.

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Introduction to Computer Graphics and 3D Modelling (6 ECTS)

Covers the basics of computer graphics, including 2D and 3D representation, modelling, and rendering techniques. Students learn to create and manipulate 3D assets for real-time environments, building practical skills for immersive applications.

Learning outcomes:

- Apply fundamental concepts of 2D and 3D computer graphics.
- Create and manipulate simple 3D models for real-time environments.
- Demonstrate understanding of rendering pipelines and visual representation.
- Evaluate the suitability of modelling tools for immersive applications.

Principles of Artificial Intelligence for Immersive Systems (6 ECTS)

Introduces AI concepts—such as machine learning, pattern recognition, and decision-making—and their integration into immersive systems. Students examine how AI can enhance interactivity, personalization, and responsiveness in XR.

Learning outcomes:

- Describe core AI concepts such as machine learning and decision-making.
- Integrate basic AI functions into immersive applications.
- Analyse how AI enhances interactivity and personalization in XR.
- Evaluate limitations and ethical implications of AI in immersive contexts.
- Address how AI models impact energy consumption and how to implement greener AI solutions.
- Explore the computer engineering concepts aligned with the AI principles.

Human–Computer Interaction and Usability (6 ECTS)

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Focuses on user-centred design, usability testing, and interaction paradigms in immersive contexts. Students study how users perceive and interact with XR systems and learn to design accessible, intuitive, and engaging experiences.

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Learning outcomes:

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- Apply user-centred design principles to immersive systems.
- Conduct usability testing and analyse user experience data.
- Compare different interaction paradigms in immersive environments.
- Design interfaces that prioritize accessibility and inclusivity.

Cybersecurity in Virtual and Augmented Environments (6 ECTS)

Examines the security challenges and vulnerabilities specific to immersive systems. Topics include data privacy, identity management, and ethical considerations for safeguarding users in VR/AR environments.

Learning outcomes:

- Identify security threats specific to immersive environments.
- Propose strategies to mitigate privacy and identity risks.
- Apply principles of data governance in VR/AR contexts besides other advanced interactive systems.
- Assess the ethical responsibilities of XR developers regarding user safety.

Virtual Reality Hardware and Systems (6 ECTS)

Provides an overview of VR hardware components, platforms, and system architectures. Students analyse the capabilities and limitations of headsets, controllers, sensors, and tracking systems, gaining insights into technical specifications and deployment.

Learning outcomes:

- Describe the components of VR hardware ecosystems and embedded systems as XR hardware components and platforms.
- Compare headset and tracking technologies in terms of capabilities.
- Configure VR hardware and software systems for specific applications.

- Critically assess the limitations of current VR platforms. *O.G.*
- Cover energy efficiency of devices, low-power architectures, and lifecycle impacts of XR hardware. *P.B.*

Playful Collaborative and Social Virtual Environments (6 ECTS)

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Studies multi-user XR spaces and their design principles, with emphasis on collaboration, co-presence, and social interaction. Students experiment with the creation of playful, engaging, and socially driven virtual experiences.

Learning outcomes:

- Design virtual spaces that support collaboration and co-presence.
- Apply theories of social interaction to immersive environments.
- Prototype playful, gamified, engaging multi-user XR scenarios.
- Critically assess social and ethical issues in shared virtual worlds.

Innovation, Ethics and Regulation in Immersive Technologies (6 ECTS)

Addresses the societal, legal, and ethical implications of immersive technologies.

Topics include data governance, accessibility, inclusion, sustainability, and compliance with European regulatory frameworks.

Learning outcomes:

- Identify ethical challenges in the deployment of XR and AI.
- Interpret relevant legal and regulatory frameworks in Europe.
- Apply concepts of inclusivity and sustainability to immersive projects.
- Propose guidelines for responsible innovation in XR.
- Address the ethical and regulatory frameworks for ecological responsibility and sustainable design.

And the **applied project (12 ECTS)** that serves as the capstone of the programme.

Students undertake an independent research project or applied industry collaboration, integrating knowledge from across the curriculum. The project emphasizes originality, methodological rigor, and relevance to real-world challenges in Immersive Technologies and Artificial Intelligence. Its learning outcomes are:

- Formulate and execute an applied project.

- Apply theoretical and practical knowledge acquired throughout the programme.
- Demonstrate methodological rigor and originality in problem-solving.
- Communicate outcomes effectively to academic and professional audiences.

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Note on Curriculum Adaptation

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While the curriculum has been designed to ensure coherence and consistency across the consortium, minor variations are expected depending on institutional and national requirements. The proposed plan must be discussed and validated by regional stakeholders (including University Boards of Directors), followed by review at both regional and national accreditation levels. As a result, the final implementation in each institution may undergo modifications to align with local regulations and governance processes, while maintaining the shared vision and objectives of the programme.

5. Impact and next steps

The **advanced training programme in Immersive Technologies and Artificial Intelligence** is designed to generate a multi-layered impact that goes beyond the immediate academic sphere. By combining **advanced technical knowledge with creative practice, ethical awareness, and applied research**, the programme contributes directly to Europe's digital transformation strategies while also addressing societal needs.

Academic Impact

The programme strengthens the higher education ecosystem by providing a structured and innovative curriculum in an area where offerings are still limited and fragmented. It establishes a model that other universities may adopt or adapt, ensuring academic leadership in the emerging domains of Immersive Technologies and Artificial Intelligence. The integration of research seminars and dissertation work also ensures that graduates contribute new knowledge to the field.

Industrial and Economic Impact

By preparing graduates with competencies that bridge technical, creative, and managerial domains, the programme supports the development of a workforce capable of driving immersive XR and AI innovation in key industries. Sectors such as *healthcare, manufacturing, mining, education, tourism, culture, entertainment and sport*, among others, will benefit from highly skilled professionals able to design, implement, and

manage immersive solutions. Furthermore, the inclusion of innovation management and technology transfer modules ensures that graduates are not only employable but also capable of becoming entrepreneurs and innovators.

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Social and Cultural Impact

The programme's broad entry profile and emphasis on inclusivity ensure that it attracts students from diverse backgrounds, including those with technological, artistic, humanist, scientific or educational expertise. This diversity fosters interdisciplinary collaboration and contributes to creating XR and AI applications that are accessible, ethical, and socially responsible. Graduates will be equipped to design immersive systems that enhance learning, cultural participation, accessibility, and inclusion.

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Policy and Strategic Impact

The curriculum has been designed in alignment with European values and strategies, particularly those focused on *digital skills, sustainability, and responsible innovation*. By addressing ethical, regulatory, and societal dimensions, the programme contributes to shaping an ecosystem where immersive technologies and AI can evolve in line with public interest and regulatory frameworks. It directly supports EU policy goals by reducing the digital skills gap and promoting innovation in a responsible and sustainable manner.

Long-term Impact

The combination of academic excellence, industry relevance, and societal responsibility ensures that the programme will have a lasting influence on the European XR and AI landscape. Graduates will not only meet current market demands but will also be equipped to anticipate and respond to future challenges, positioning Europe as a global leader in immersive innovation.

To ensure the programme is ready for implementation in the academic year 2026, the following actions are recommended:

- **Accreditation and Approval:** Secure internal institutional approval, allowing time for refinements.
- **Faculty and Staff Development:** Recruit and train teaching staff with expertise in Immersive Technologies, Artificial Intelligence, and interdisciplinary pedagogy.
- **Infrastructure Readiness:** Ensure XR labs, hardware, and software platforms are procured, installed, and tested to support professors and learning.

- **Partnership Agreements:** Formalize collaborations with industry partners for internships, applied projects, and guest lectures to enhance the programme's practical dimension. *O.G.*
- **Marketing and Recruitment:** Launch an international recruitment campaign to attract a diverse student body, highlighting the broad input profile and unique features of the programme. *P.B.*
- **Pilot Activities:** Run an initial pilot as a testbed for content, teaching methods, and lab facilities, using feedback to refine the curriculum. *G.C.*
- **Quality Assurance Mechanisms:** Establish monitoring, evaluation, and feedback systems to be operational from the very first cohort.

By following these steps, the programme will transition smoothly from design to implementation, ensuring academic excellence, operational readiness, and strong impact from its inaugural cohort.

6. Conclusions

The **advanced training program in Immersive Technologies and Artificial Intelligence** represents a decisive step in addressing Europe's digital skills gap and strengthening **the link between higher education, industry, and society**. The programme's design, rooted in international benchmarking and informed by best practices, ensures a unique balance between technical knowledge, creative practice, and ethical reflection. Besides that, strategies like **project-based learning, active methodologies** and **learning by doing** will be nuclear to this educational programme.

The programme will be jointly offered by all the academic partners in the VIC Project and the format will be **online**.

The results achieved demonstrate the coherence of the curriculum: **from foundational principles to technical applications**, from theory to practice, and from individual research to collaborative and industry-driven projects. This structure not only equips students with cutting-edge skills but also nurtures a broad and inclusive community of learners, **welcoming diverse backgrounds** and fostering interdisciplinary collaboration.

Regarding **the graduates**, they may **find employment in** areas related to research and development, advanced design, and the planning and management of even complex IT systems. Graduates **can work as** freelancers, join manufacturing or service companies, or take on roles of responsibility within public administrations. **Typical fields of activity include** hardware and software production, automation and robotics, consulting and professional services, and IT services within public administration.

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This program can be also seen as **an excellent onboarding for the master's degree** developed under this same VIC Project.

Student **learning will be evaluated through** a mix of formative and summative methods designed to capture both technical knowledge and applied skills. Strategies may include project-based assessments, practical lab work, case studies, and research reports, complemented by individual and group presentations to foster communication and collaboration. Continuous feedback, peer review, and reflective exercises will support learning progress, while final examinations or capstone projects will ensure mastery of the programme's learning outcomes. In addition, the programme's assessment approach will be aligned with the **broader evaluation framework developed within WP7** of this project, which provides clear guidelines and quality indicators for monitoring progress, impact, and sustainability. This ensures that student assessment methods are not only consistent across the consortium but also embedded within a structured process of continuous evaluation and improvement.

The expected impact confirms the transformative value of the programme. Graduates will be **prepared to drive innovation** in Immersive Technologies and Artificial Intelligence **across multiple sectors**, contribute to societal inclusion and accessibility, and reinforce Europe's strategic objectives in digital transformation, sustainability, and responsible innovation.

The curriculum addresses topics like **sustainability**, reflecting the growing responsibility of digital professionals to address environmental challenges. From a justification perspective, these modules respond to the urgent need to design and operate **technologies that reduce energy consumption, minimize ecological impact**, and contribute to the European Green Deal's broader objectives. By including sustainability in the programme, graduates will be prepared not only to innovate but also to ensure that innovation is socially and environmentally accountable.

From a descriptive perspective, the modules can **cover sustainable design principles, energy-efficient computing architectures**, and methodologies for assessing and **mitigating the ecological footprint** of digital technologies. Students will explore best practices in green software development, low-power hardware design, lifecycle analysis, and responsible resource management. Case studies, hands-on projects, and cross-disciplinary collaboration will help learners understand how to balance technical performance with sustainability, equipping them to make informed decisions in research, industry, and policy contexts.

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Looking ahead, **the next steps** involve piloting the programme, refining its components based on feedback from students and partners, and expanding collaboration with industry and academic stakeholders. Through this process, the programme will consolidate its role as a benchmark for excellence in immersive and AI-driven education, and as a catalyst for long-term innovation in Europe and beyond.

Annex 1 – Deliverable quality assurance checklist

Criteria	Fully met	Partially met	Not met	N/A
1. Structure and format				
Deliverable follows the official VIC template.	☒	☐	☐	☐
Includes correct cover, metadata, authorship, and revision history.	☒	☐	☐	☐
2. Clarity and readability				
The content is clear, well-written, and logically structured.	☒	☐	☐	☐
Acronyms and terminology are defined and consistently used.	☒	☐	☐	☐
3. Scientific and technical quality				
Meets scientific and/or technical standards.	☒	☐	☐	☐
References are accurate and appropriately cited.	☒	☐	☐	☐
4. FAIR and ethics compliance				
Metadata is complete and machine-readable	☒	☐	☐	☐
GDPR checklist is filled and attached.	☒	☐	☐	☐
Ethical considerations addressed.	☒	☐	☐	☐
5. Impact and relevance				
Contributes meaningfully to project objectives and WPs.	☒	☐	☐	☐
Expected results and KPIs are clearly linked.	☒	☐	☐	☐
6. General comments	(free text area)			

Annex 2 - GDPR checklist

Area	Question	Yes	No	N/A	Notes / Details
1. Data collection	Does the deliverable involve collection of personal data?	☐	☒	☐	
	Is the purpose of data collection clearly stated and limited to what is necessary?	☐	☐	☒	
2. Legal basis	Has the legal basis for data processing been identified and documented (e.g., consent, contract, public task)?	☐	☐	☒	
	If consent is used, has it been freely given, specific, informed and unambiguous?	☐	☐	☒	
3. Data minimisation	Does the deliverable ensure only necessary data is collected and processed?	☒	☐	☐	
	Are all datasets anonymised or pseudonymised where possible?	☒	☐	☐	
4. Data storage and access	Is personal data stored securely (encrypted, password protected, etc.)?	☒	☐	☐	
	Is access to the data restricted to authorised personnel only?	☒	☐	☐	
5. Data sharing	Does the deliverable include any personal data sharing with third parties?	☐	☒	☐	
	If so, are data processing agreements or consent forms in place?	☐	☐	☒	
6. Data subject rights	Are data subjects informed of their rights (access, correction, deletion)?	☐	☐	☒	
	Has a procedure been defined for responding to data subject requests?	☐	☐	☒	

7. Data retention and deletion	Is there a defined retention period for personal data?	☐	☐	☒	
	Is personal data deleted or anonymised after the retention period?	☐	☐	☒	
8. Risk assessment	Has a Data Protection Impact Assessment (DPIA) been conducted if required?	☒	☐	☐	
	Are risks to data subjects identified and mitigated?	☒	☐	☐	
9. Documentation	Is documentation available to demonstrate GDPR compliance?	☒	☐	☐	

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Annex 3 - Programme Description Table

Advanced Training Program in Immersive Technologies and Artificial Intelligence (60 ECTS)							
MASTER PLAN							DESCRIPTION
YEAR	SEMESTER	COURSE UNIT	ECTS	MACRO AREA	OWNER	COLLABORATOR(s)	
1	1	Foundations and Applications of Virtual and Augmented Reality	6	ITCD	UNINT	SIMPLON,EUNEIZ, ISTE	Overview of the principles, history, and contemporary uses of VR and AR across industries, highlighting key technologies, user experiences, and future trends.
		Introduction to Computer Graphics and 3D Modelling	6	CCD	EUNEIZ	YOUBIQUO, POLIMI	Introduction to the fundamentals of 2D/3D graphics, rendering techniques, and basic modeling workflows used in immersive environments.
		Principles of Artificial Intelligence for Immersive Systems	6	AI&CV	UNINT	YOUBIQUO, SIMPLON	Explores core AI concepts and their integration into XR, including machine learning, intelligent agents, and content personalization.
		Human–Computer Interaction and Usability	6	HCI	UNINT	YOUBIQUO, SIMPLON, C.E.,EUNEIZ, ISTE	Examines theories and practices of HCI and UX/UI, with a focus on designing intuitive, accessible, and user-friendly immersive systems.
		Cybersecurity in Virtual and Augmented Environments	6	Cyber	ISTEC	UNICIS,EUNEIZ	Introduces security challenges and strategies for protecting immersive applications, data, and user privacy in XR contexts.
	2	Virtual Reality Hardware and Systems	6	ITCD	EUNEIZ	KHORA, YOUBIQUO + TU DELFT	Analysis of VR hardware components and platforms, including head-mounted displays, sensors, and tracking systems, and their role in user experience.
		Playful Collaborative and Social Virtual Environments	6	AI&CV	EUNEIZ	KHORA, POLIMI, C.E., SIMPLON, ISTE	Study of multi-user virtual spaces, social interaction, and gamified experiences, with emphasis on collaboration and community building.
		Innovation, Ethics and Regulation in Immersive Technologies	6	CCD	ISTEC	UNICIS, C.E., ISTE	Explores ethical, legal, and societal implications of XR, considering issues such as safety, inclusivity, and regulatory frameworks. Focus it specifically on the EU macro context.
		Applied Project	12	ALL	ISTEC	UNINT, KHORA, YOUBIQUO, POLIMI, SIMPLON,EUNEIZ, ISTE + TU DELFT	Students work in teams to design and develop a functional XR prototype or application that addresses a real-world challenge. The course emphasizes project management, interdisciplinary collaboration, and the practical integration of technical, artistic, and research skills acquired throughout the program.
		TOTAL ECTS	60				

Location	Program Name	Duration	Syllabus content (based on available information on the website)
Lund, Sweden	Master of Science in Virtual and Augmented Reality	2 years	- Computer graphics and its implications for VR/AR applications - Image analysis and its applications in VR/AR tracking - 3D interaction in VR/AR applications - User-centred design methodology for VR/AR development - Image Analysis - Computer Graphics - Interaction Design - High Performance Computer Graphics - Virtual Reality in Theory and Practice - Computer Vision - Theoretical Perspectives in Interaction Design - Universal Design, Theory and Project - Augmented Reality Interaction - Extended Reality, continuation course - Working Environment Project Course - Usability Evaluation or Modelling and Learning from Data - master's degree Project
London, UK	MA or MSc in Virtual and Augmented Reality	1 year full-time or 2–3 years part-time	- Virtual Reality - Augmented Reality - Introduction to Programming for Games - Option Module - Advanced Topics in Virtual and Augmented Reality - Pathway specific skills modules - Option Modules - Final Project
Vitoria-Gasteiz, Spain	Master's Degree in Virtual and Augmented Reality	1 year (evenings and weekends)	- Auditory and visual perception in the virtual space - Fundamentals of cognitive science and psychology - Product ideation - Production - Marketing and communication - 3D modelling and sculpting workshop - Set design, lighting, interaction and 3D sound design - Rigging and animation workshop - Game and virtual reality engines - Advanced 3D art for virtual reality - Design of interfaces and usability in virtual and augmented reality. - Virtual and augmented reality project - Programming project - Master Thesis
Évry and Palaiseau, France	Master Year 2 in Virtual & Augmented Reality	1 year	- Basics in computer vision - Computer graphics - Human computer interface - Transversal Master Project - Advanced Computer vision and 3D reconstruction - Artificial intelligence for VR/AR - Social Robotics - Collaborative Environments - Virtual reality - Augmented reality - Internship
Lisbon, Portugal	Master in Computer Science	2 years	- Distributed Computing - Virtualization I - Private Cloud Computing - Multimedia for Mobile Devices - Web Programming and Multimedia - User Interfaces - Computer Systems Architecture - History of Computing - Cyber Security - Project Management - Virtualization II - Public Cloud Computing - Hybrid Cloud Computing - Android Development - Development for iOS Platforms - Mobile Web Applications - Applied Research Methodologies - Dissertation/Project

Évry, France	Master in Virtual Reality and Intelligent Systems	1 year	- Fundamentals of Virtual Reality - Mixed Reality Interaction - Mixed Reality Geometric Modeling - Multi-view geometry and automatic recognition - 3D tracking and Augmented Reality - advanced vision - Deep learning for computer vision - Pattern Recognition and Biometrics - Multisource data processing - Control and environment interaction - Localization and Mapping - Embedded systems and geolocalisation - Multimodal and collaborative interactions - Humanoid Animation Techniques - Language - internship
London, UK	Master of Science in Digital Design (Immersive Mixed Reality)	1 year full-time / 2 years part-time	- Digital Design - Digital Media Technologies - Immersive Mixed Reality Design - Major Project - Digital Branding Strategy - Brand Experience Design - Motion Graphics - 3D Animation
Bristol, UK	Master of Science in Immersive Technologies (Virtual and Augmented Reality)	1 year full-time / 2–3 years part-time	- Introduction to Immersive Technologies and Arts - Virtual Environment Design - Innovation and Entrepreneurship in the Immersive World - Immersive Interaction and Audio Design - Immersive Games Design and Production - Augmenting the Real World - Creative and Immersive Project
Potsdam, Germany	Master of Science in Advanced Digital Reality	2 years	- Complex problem solving - Immersive technologies - Coding camp I : Python - Design thinking - Special effects and practice simulation - Coding camp II - Big Data, Software systems, Cloud computing - Haptics and multisensory integration - Application of AI - Group challenge digital reality - 6 electives - Master challenge - Master thesis
Swansea, UK	Master of Science in Virtual Reality	1 year	- Development of Virtual Reality Applications 1 - Game Design and Programming - The Digital Revolution (VR) - Development of Virtual Reality Applications 2 - Case Study in state-of-the-art Virtual Reality - Digital Marketing - MSc Dissertation - Virtual Reality

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London, UK	Master of Arts in Virtual Reality	15 months	- Creative VR Project Portfolio - Designing Immersive Experiences - Critical Practice and Exploration - Collaborative Unit - Final Project and Thesis
Dublin, Ireland	Master of Science in Computer Science (Augmented and Virtual Reality)	1 year	- Advanced Software Engineering - Machine Learning - Research and Innovation - Dissertation - Real-Time Animation - Mathematics of Light and Sound - Extended Reality - Real-Time Rendering - Computer Vision - Computer Graphics - Multiple elective modules : - Optimisation Algorithms for Data Analysis - Applied Statistical Modelling - Artificial Intelligence - Internet of Things - Security and Privacy - Text Analytics - Adaptive Applications - Distributed Systems
Portsmouth, UK	Master of Science in Extended Reality	1–2 years	- Professional, Academic and Research Development - Project context and Definition - Project Design and Development - Project Evaluation and Resolution
Hamburg, Germany	Master of Science in Digital Reality	2 years	- First year: acquisition of fundamental mathematical and technical knowledge and skills, with an additional focus on issues in digital realities - Second year: specialization: major project and a research seminar
Vienna, Austria	Master of Science in Visual Computing	2 years	- Interactive Computer Graphics - Advanced Computer Graphics - Advanced Visualization - Virtual Reality and Augmented Reality - Computer Vision - Advanced Computer Vision - AI for Visual Computing - Applications of Computer Vision - Image and Video Analysis & Synthesis - Methods of Visual Computing Project in Visual Computing - Mathematics for Visual Computing - Media Understanding - Methods of Visual Computing - Free Electives and Transferable Skills - Diploma Thesis

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Paris, France	Mastère: Advanced Game Creation – Real- Time Applications	2 years	Integration bootcamp: fundamentals of real-time applications - Artistic direction - Project management - Rigging and world building - Animation for real-time environments, including VFX and shaders + Integration bootcamp: fundamentals of real-time applications + Artistic direction + Project management + Rigging and world building
Sofia, Bulgaria	Master of Telecommunicat ions specialized in Creative 3S Technologies for Augmented and Virtual reality	1 year Full-time	- Audio - video and sensor technologies for virtual and augmented reality - Mathematics for games and virtual/augmented reality - Spatial audio for virtual and augmented reality - Game programming – Unity - High-performance computer graphics - Introduction to 3D modeling and animation - Game programming – Unreal - Virtual and augmented reality - UX Design for augmented and virtual reality - Asset and character development for games
Plovdiv, Bulgaria	Master – Designer of Multimedia and Virtual Reality	1,5 yeas (3 semesters) Full-Time	- Multimedia Design - Multimedia Systems and Technologies - Virtual Reality - 3D Modeling and Animation - Interactive Design and Systems - Concept of Multimedia and Virtual Reality - Digital Video Processing and Special Effects - Digital Audio Processing - Theory of Virtual Communication - Contemporary Plastic Culture, Semiotics - Project Management - Foreign Language - Animation, Project Work - Practical Diploma Project (interactive application animation, movie, computer game, 3D visualization, etc.) - Master's Thesis
Venice, Italy	Postgraduate Master's Degree in Architectural Visualization (VR focus)	7-8 months of courses + a final internship or project work and a dissertation	- 3D Modeling: Including polygon modeling with 3ds Max and plugins such as Railclone and Forest Pack - Photorealistic Rendering: Using Corona renderer for interiors and exteriors, with topics including lighting, photography, and post-production - Video Animation & VR: Using Unreal Engine for real-time rendering, basics of storytelling, video post-production, and VFX - Extra contents: AI applications, special effects for visualization, complex materials, and postproduction techniques

The VIC Project Team – November 2025

Oscar García

Pedro Braudão

Gisela Canelhas

CERTIFICATE *of* SIGNATURE

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