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| SCHOOL | Artistic Decoration - Accademia Santa Giulia Brescia |
| ACADEMIC YEAR | THREE-YEAR PROGRAM III - 2025/2026 |
| SUBJECT | 1687 Tecniche e tecnologie della decorazione II |
| TYPE OF SUBJECT | Theoretical-Practical |
| NUMBER OF HOURS PER LESSON | 3 |
| NUMBER OF ECTS CREDITS | 6 |
| DISTRIBUTION OVER THE ACADEMIC YEAR | II SEMESTER |

EDUCATIONAL OBJECTIVES AND EXPECTED RESULTS

Through the analysis and creation of case studies of interior and exterior scenes during the course, in addition to discovering the Twinmotion software and its functionalities, you will learn to create complex and realistic virtual scenes, from the initial sketch to the publication of the final project. The analysis of the case studies will assist students in understanding how to independently structure future work, thereby enabling them to present their project in the most effective manner. With Twinmotion, we have the opportunity to facilitate a more intuitive and effective understanding of our work by the interlocutor, leveraging tools such as virtual reality (VR), video, navigable hotspot panoramas, and animations.

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| Knowledge and understanding | 1. Knowledge and understanding: Acquaint yourself with the Twinmotion software, its functions, applications, and features, both from a theoretical perspective and in practical application, from the initial sketch to the publication of the final project. Understand the significant potential for presenting your work to a prospective client in a professional setting. |
| Applying knowledge and understanding | 2. Ability to apply knowledge and understanding: Analyze and independently utilize the tools provided by the program, and be capable of applying them in accordance with the diversity of projects. |
| Making judgements | 3. Autonomy of judgment (making judgments): Establish a conscious approach to the type of creations to utilize the acquired knowledge by developing works and projects that integrate into the context. |
| Communication skills | 4. Communication skills: Being able to fully utilize the potential of this software; being capable of applying it in the virtual network and through social media, to enhance competitiveness in the professional environment. Enhance the ability to convey your work to the interlocutor in a more intuitive and effective manner, leveraging tools such as virtual reality (VR), video, navigable hotspot panoramas, and animations. |
| Learning skills | 5. Learning skills: The ability to understand the software and utilize it independently, through the acquired knowledge of the software's tools and functionalities. |

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| CONTENTS | Introduction to the software: Navigation and interface, Integration with Megascan and Sketchfab, Integrated library, Import of 3D models, Import models exported to other software, Datasmith Direct Link, Nature Brush, and Open Street Maps. Lighting configurations: natural and artificial illumination, Atmospheric agents, High Dynamic Range Imaging Materials: Pre-installed materials library, Custom materials, Decals Rendering settings: Camera, Rendering configurations Export: Render static image, render panoramic image, video, presentation, Virtual reality |
| ADOPTED METHODOLOGY | [X] In Person With twinmotion, we will utilize a real-time engine (Unreal Engine) that enables the creation and presentation of architectural, design, and decoration projects without the necessity of employing complex procedures. Within a few hours, you will be fully operational to implement your projects, utilizing the same technology as Unreal, yet with a remarkable simplicity. We will examine the program's preferences, the management of animated paths for characters, vehicles, bicycles, and customized routes; the comprehensive management of vegetation; and the method for incorporating geographical data from cities worldwide into our scene through a straightforward 3D volume capture. We will also utilize the new animation tools applied to objects and characters; we will examine all material libraries and their PBR settings to ensure accurate real-time scene visualization; all lighting sources, both natural and artificial, will be analyzed, ranging from solar systems and localization to IES and volumetric photometric lights. A wide range of 3D objects, both static and animated, are readily available, along with particle systems and real-time liquid management. The content library also includes audio effects to enhance the realism of our scenes. Tools for interactive 3D painting and sculpting of terrains and natural elements, such as plants, flowers, rocks, and animated or static characters, are provided. Additionally, a variety of domestic furnishings, including kitchens, living rooms, and bathrooms, are included. Furthermore, animated and static vehicles, such as cars, bicycles, industrial vehicles, and aircraft, are also available. In the rendering section, we will examine the creation of images, videos, and interactive presentations. Additionally, we will explore the encoding of videos in 3D format for use on social networks or video platforms such as YouTube. The environments created will be navigable interactively using common tools such as joypads, keyboards, and displays. |
| ASSESSMENT METHODS | The evaluation criteria for each student are: - Commitment in every phase of design and implementation is essential, as it requires equal dedication to achieve a high-quality final result. The following aspects are taken into consideration: Evaluation of the project conducted in the classroom, commencing with architectural surveys, composition, lighting, and the rendering of realistic materials. |