

Prova numero 1

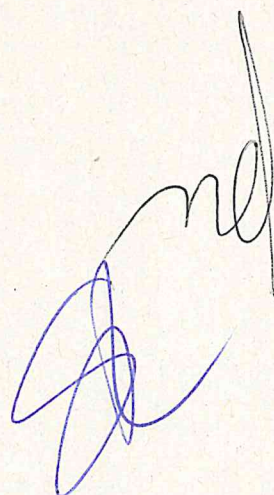
1. Discutere l'impiego delle metodologie BIM nella gestione del ciclo di vita di un edificio

Accertamento competenze informatiche:

Excel, utilizzo delle tabelle pivot

Lettura e parafrasi (FONTE: <https://www.cadcrowd.com/blog/differences-between-3d-modeling-cad-and-bim-explained/>):

1. Building Information Modeling (BIM) is a highly specialized field of 3D modeling. In fact, freelance BIM modeling services are popularly used only among architectural professionals because it is specifically created to help run and manage construction projects. It involves 3D visualization of the facility or building to be constructed, but the real advantage of BIM is the amount and depth of data attached to every single component of the structure. In addition to aesthetics or surface-level visuals, a BIM file also contains data for sub-surface construction. For example, HVAC systems, plumbing pipes, electrical wiring, and even how many bricks a wall needs. The digital representation of a structure in a BIM file must also contain functional data, which means every element knows its intended purpose and behavior.



Prova numero 2

2. Discutere l'impiego di un modello geometrico 3D di un edificio, realizzato con tecnologie di laser scanning, nella realizzazione di un modello BIM

Accertamento competenze informatiche:

Excel, utilizzo delle tabelle pivot

Lettura e parafrasi (FONTE: <https://www.cadcrowd.com/blog/differences-between-3d-modeling-cad-and-bim-explained/>):

2. Traditional building designs are presented as two-dimensional technical drawings that contain data about elevation, section, floor plan, etc. BIM offers a massive advancement to the conventional approach by using 3D models, which are not only geometrically-accurate but also attached with detailed information regarding time/scheduling (4D), cost (5D), environmental and sustainability analysis (6D), and facility management information from the design stage to demolition (7D). Used widely by architectural BIM services, engineering, and construction (AEC) firms, BIM software has refreshed the outdated approach to construction design with much better visualization and more accuracy.

Prova numero 3

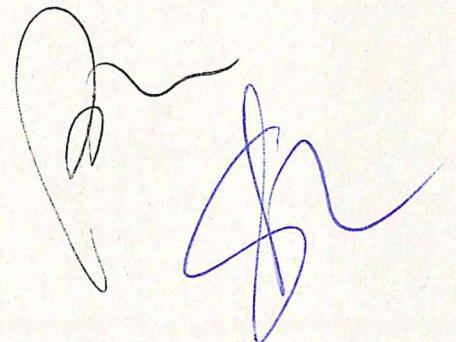

3. Discutere le potenzialità della tecnologia BIM applicata alla progettazione di un edificio civile

Accertamento competenze informatiche:

Excel, utilizzo delle tabelle pivot

Lettura e parafrasi (FONTE: <https://www.cadcrowd.com/blog/differences-between-3d-modeling-cad-and-bim-explained/>):

3. The terms 3D modeling, CAD, and BIM are often confused with one another, which is quite understandable. Some professionals use the same software for all three applications, and some companies market their software with everything but specific descriptions, leading to confusion among users. There is a certain degree of overlap between the terms and their usage, but they also have some notable distinguishing properties. When intended to create 3D objects, CAD and BIM applications fall under the 3D modeling category. This means that all works created through the process of either CAD or BIM can be considered 3D models and the creators can be regarded as 3D artists in general.



Prova numero 4

4. Discutere l'applicazione della tecnologia BIM nell'edilizia storica.

Accertamento competenze informatiche:

Excel, utilizzo delle tabelle pivot

Lettura e parafrasi (FONTE: <https://www.cadcrowd.com/blog/differences-between-3d-modeling-cad-and-bim-explained/>):

4. 3D CAD is mainly about developing hyper-realistic digital 3D models of just about any object. This is the main reason that the technology is utilized in a wide range of industries such as science, industrial design services, product design, marketing, advertisement, games, and films. The 3D models can serve multiple purposes. For example, they can assess the technical and financial viability of a design, construction stability, function, performance, user experience, and aesthetic aspects before the object is materialized. In the game and film industries, the objects never have to be materialized because the final products will still be in digital format. On the other hand, BIM is almost exclusively used for construction projects, so its application is limited to the architectural industry. Thanks to the monumental amount of data that BIM software can create and manage within a single file, it has become the primary choice in modern architectural and civil engineering projects.

