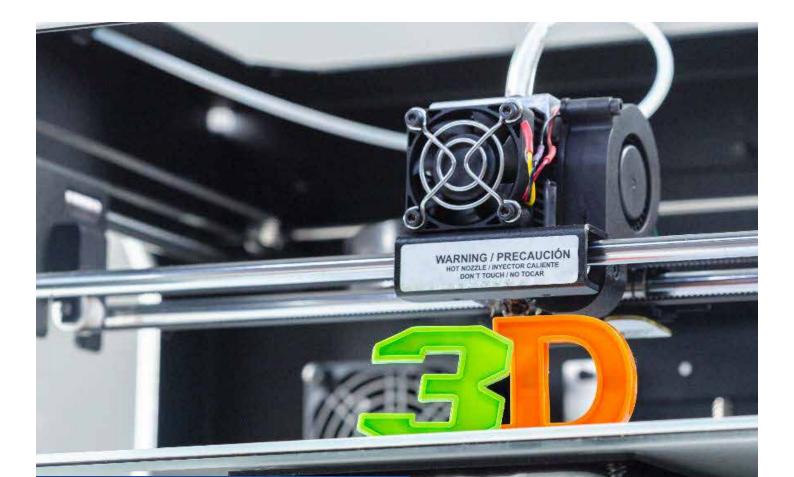# Ed-Tech
AFRICA

3D DESIGN & PRINTING

6 WEEKS COURSE

Ed-Tech
A F R I C A

Transforming education
through technology

Course Aims & Objectives

This course is designed to teach students with a basic understanding of 3D printing and digital production how to bring their creations into the 3D realm. The course will cover topics such as the fundamentals of 3D printing, modeling software, designing for 3D printing, file organization, and materials selection.

Students will learn how to create optimized 3D models that can be easily fabricated using a 3D printer. By the end of the course, students will have gained the skills and knowledge necessary to bring their designs to life using 3D printing technology.

What is 3D Design?

3D design is the process of using software to create a mathematical representation of a 3-dimensional object or shape. The created object is called a 3D model and these 3-dimensional models are used for computer-generated (CG) design.

3D design is used in a variety of industries to help artists shape, communicate, document, analyze, and share their ideas. 3D printing is an additive process whereby layers of material are built up to create three dimensional objects, models and figures.

3D printers analyze a design or model given to them by a computer and print it out in real life by depositing some material, like wood filament or polymer resin layer by layer to create a 3D model.

Curriculum Index

CAREER AND EMPLOYMENT OPPORTUNITIES

Models for Educational Purposes
Product Design & Manufacturing
3D Animation
Architecture
Video games
Movie

You can also make money by selling 3D business ideas or selling 3D printed products on your website.

Examples of 3D printing designs:

- Earphone holder
- Rubik's cube
- Measuring cube
- Ocarina
- Chopstick Trainer
- Hanging planter
- Folding leaf bowl

Modeling & Printing in Blender

Precautions when MSLA resin printing
Using the Spin Tool to Form the Base
Boolean Subtraction to form the Head
Combing Both Sections into One
Merging Both Sections Into One
Increasing Resolution &
3D Printing Checks
Exporting STL File
Slicing The Model in Chitubox
Rotating The Model, Slicing & Resin
Printing

How does it work?

3D printer analyses a computer

created model of an object and then deposits material.

Layer by layer the object will be created to real life.

3D PRINTING

"The art of turning dreams into reality."

3D DESIGN

"Is the bridge between the digital and physical worlds."

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