



CAD/3D Printing

Description

The aim of this subject is to provide the students with an introduction to computer aided design (CAD) and computer aided machining (CAM). They will use Tinkercard and Fusion 360 to develop three dimensional models that will be printed on a 3D printer. To do this students will follow a design process to develop ideas into final products.

Students will be encouraged to develop trouble shooting skills, the ability to persist and other skills that will develop independent learning.

Unit Topics

The student will be learning to draw on computers using Tinkercard and Fusion 360 CAD drawing program. The students will develop skills in these programs to:

- Draw basic objects*
- Draw complex objects*
- Develop the skills and knowledge required to prepare a CAD drawing for printing on a 3D printer*
- Develop ideas, designs and drawings into physical objects that can be used*

Skill Development

The student will learn how to use Fusion 360, design and print a unique key tag, creatively redesign components that need to fix together, and develop a design of the student's choice to be printed on the 3D printer.

Possible Assessment Tasks

- Project based assessment tasks*
- Oral presentations*
- Design concept drawings*