



Design and Communication Graphics

Design and Communication Graphics (DCG) has taken the place of technical drawing for the Leaving Certificate and provides students with the opportunity for visualizing and comprehending information presented verbally or graphically.

Problem solving and creative thinking skills are developed through the analysis and solution of both 2- and 3-dimensional graphics. Graphics and design are communicated using freehand sketching skills, traditional draughting equipment and CAD.

If you are interested in taking this subject to Leaving Certificate level you will have taken Tech Graphics to Junior Certificate level. There is a great emphasis in the Leaving Certificate course on comprehension, analysis and problem solving. In simple terms you must be able to understand what has to be done, analyse how you are going to approach it and then proceed to solve the problem. Although it is not an essential subject for either architecture or engineering it is regarded as a useful asset if you are thinking of a technical course. This course now has a project aspect.

Career Possibilities

DCG is a core element of many 3rd level options including Engineering, Interior Design, Product Design, Animation, Furniture Design, Construction and Architecture. Knowledge of this subject will greatly enhance a student's ability in any 3rd level engineering based programme. All apprenticeships include the study of detailed technical drawings.

Subject Content

Consists of a core section comprised of (a) plane and solid geometry and (b) communication computer graphics, including freehand sketching. There is also an options section of applied graphics, two options are to be taken.

Exam Structure

One Terminal Exam Paper 60%

Student Assignment 40%

Terminal Exam: 3 hours duration.

Section A (core short questions)

4 short questions from various areas of the core - Student must attempt 3 questions - Compulsory - Marks 60

Section B (core long questions)

This section of the paper will contain four questions which will be based on material from the following syllabus areas:

- * Projection Systems
- * Conic Sections
- * Intersection and Development of Surfaces
- * Descriptive Geometry of Lines and Planes

Each question will be a multi-part question - Student must attempt 2 questions - Marks 90(2x45)

Section C

This will be a multi-part question - Student must attempt 2 of the following questions - Marks 90(2x45)

1. Geologic geometry
2. Structural forms
3. Surface geometry
4. Dynamic Mechanisms.
5. Assemblies.

Total: 240

Student Assignment

- Emphasis on:
 1. Elements of design
 2. Communication graphics
 3. Use of ICT'S in design
 - Different theme for higher and ordinary level
 - May take the form of:
 - A design investigation and modification
 - A concept design
 - (160 marks)

