

DCG Programme Outline

The Design and Communication Graphics Programme highlights the links between the various aspects of the syllabus. These links must be established so that students can fully understand and engage with the various topics in a cohesive manner.

‘The inter-relationships between areas of the subject must play a part in the teaching and learning, and the links between various topics should be established.’ (Draft Teacher Guidelines, p.11)

At the heart of the subject are key concepts and building blocks which the student must engage with before embarking on further study of the subject. These concepts involve use of the manual drawing equipment, CAD and other ICT software, and the development of sketching skills, ICT skills, and an understanding of the underlying principles and theorems of plane and descriptive geometry. In planning for teaching it is necessary to ensure that these basics have been covered and that the subject is subsequently taught in an integrated fashion, where concepts and constructions introduced in one area are reapplied, expanded and mastered in other related areas.

The core is the basis of the subject comprising all the key elements of Design and Communication Graphics. It is intended to give students a thorough understanding of the principles of plane and descriptive geometry and the communication of design and computer graphics. There is no hierarchy amongst the elements of the core and there is no designated order in which the elements are to be taught. However, there are certain areas of the core which underpin the study of other areas; for example, the study of oblique planes and auxiliary projection could be undertaken before embarking on a detailed study of intersection of surfaces. However a thorough understanding of Projection Systems is central to all topics:

‘The ability to represent three dimensional space in two dimensions is the basis for the for the investigation and solution of all solid analytic geometry problems’ (Design and Communication Graphics Syllabus, p.12)

It should also be noted that plane geometry should underpin the other topics in the core rather than be seen as a distinct topic. Therefore links should be established where possible between each of the elements of the core and options.

Students should be continually encouraged to communicate their ideas through the media of freehand sketching and CAD throughout the course and not just for the production of the student assignment. The skill required for the production of the student assignment should be developed and fostered through an integrated approach to the teaching and learning of the core and selected options.