What Is Drafting and Design?

I know what you are thinking…. "What is drafting and how will it help me?" Before we discuss drafting, we need to study what manufacturing and the drafting industry are all about.

Look around your home—you will probably see various manufactured items. A manufactured item is one that is made by a person or a group of people, usually in a plant or factory.

From chairs to tables to toasters, all of the items in a home were manufactured by somebody. The items can be made from wood, metal, plastic, fabric, or any combination of materials.

The industries that bring us products that are made from wood, metal, plastics, or fabrics affect us directly by the fact that we use these products. For example, we sit on a chair, lie down on a couch, and usually eat with a spoon or fork. These items have a physical presence in our daily lives.

The drafting field also affects us, albeit indirectly or in a round-about way. That's because all of the products that we use in our lives on a regular basis had to be first thought of, then designed, then drawn, and finally, made or manufactured. Remember, every manufactured object first came from an idea. It is these ideas that can lead to new and improved products. Ideas are, of course, thought of by people. In order for an idea to become a product, the person who thought of the idea needs to share or communicate it with others. Whether you have very creative ideas or just simple ones, you must communicate them with other people, or your ideas will not be used. The communication of these ideas is what drafting is all about. Around the world people use drafting to pass along information, to instruct, to give directions, and to record their ideas.

Imagine a simple wooden bench or a dog house. You could probably build one without a drawing or plan, but if a friend who lived someplace else saw it and wanted to build one just like it, he or she would need a sketch or drawing that described it completely and accurately. This drawing or sketch could be in various forms.

What is important to remember is that the easiest way to describe an item or object is by pictures (think of the expression, "a picture is worth a thousand words"). Drafting is a graphic language that is concerned with the preparation and construction of drawings needed to develop and manufacture products.

Drafting is a language that uses lines, not letters. In any written language, letters are used to make words, and words are grouped together to form sentences. These sentences are then used to give information. Drafting works the same way, except that it uses lines instead of letters, and groups of lines or symbols instead of words. These groups of lines or symbols are put together to form a drawing, much like words and sentences are put together to form stories.

Because all industries use some form of drafting in manufacturing, drafting is considered the "language of industry." All levels of manufacturing use this language because it is a precise way to communicate the idea of a designer to the people who actually make or build the product. The drafting industry uses lines and symbols that have been set as standards in most parts of the world. This makes it possible to

interpret or understand drawings made by drafters in other countries. For this reason, drafting is referred to as the "universal language." In this course you will cover material that is exactly the same as the material that students in other parts of the world are studying.

It would be difficult to name any job or occupation in our modern industry that does not require the ability to read or understand graphic information. Graphic information can be in the form of drawings, charts, or diagrams. This course uses various graphic forms to help you understand concepts. When something doesn't work, you might hear a person say "it's back to the drawing board." What that statement means is that the design has to be modified or improved; the plan needs to be reworked or redrawn.

Measurements

Measurements are expressed using either the imperial system or the metric system. The imperial system is based on feet, inches, and parts of inches, while the metric system is based on the millimeter, centimeter, and the meter. All of the assignments in this course are based on the imperial system, but it is important to remember that there are a variety of different measurements. For example, consumer products like televisions, computer monitors, picture frames, nails, and most lumber are described using the imperial system, while things like car parts, manufactured components, or anything made in modern industry are described using the metric system. Why?

References:

Adapted from Manitoba Education (2009). Retrieved from http://www.edu.gov.mb.ca/k12/dl/iso/previews/gr9_drafting.pdf