Assignment #2: Technical Description

Engineers and scientists are often required to describe a technical object or process to someone who has no idea what the object or process looks like or how it works. Translating discipline specific knowledge to lay audiences—individuals who are unacquainted with discipline specific language and knowledge—is often a primary job for technical writers and editors. You likely have informal experience with this translation process from explaining your course work to family members or friends. While this assignment will benefit your writing more generally, there are a number of professional writing tasks may require you to compose a technical description.

Suppose, for example, that you produce a report that examines the feasibility of distributing rainwater collection tanks as part of a comprehensive solution to clean up Decker’s Creek; one section of the proposal would precisely describe the rainwater collection tanks in terms of both their composition and how they work. Technical descriptions such as these appear in a wide variety of documents and serve a wide variety of purposes. For example, you might expect to write a technical description to explain a problem that a feasibility report aims to resolve, to account for and explain necessary equipment in a grant proposal, or to highlighting the process that users will complete in an instruction set.

Although technical descriptions seem like purely objective documents (i.e. they simply describe how something works), they are also persuasive. As you describe how your product or process functions, you will want to convince readers that your description is accurate, logical, and important for them to understand.

There are two different kinds of technical descriptions to consider. Choose the one that is appropriate for your topic.

A **product description** explains the features of a specific device, like a scientific instrument or computer program. Possible topics include devices that are specific to your field; you could also describe a device that is used in everyday contexts.

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Breathalyzer
Saber saw
Photovoltaic panel
Catalytic converter
Radio
Sphygmomanometer
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A **process description** explains how a complex event occurs, including a mechanical process (how donuts are made) or natural events (how lightening is produced). You can choose a process that is specific to your field, or just something people might be curious about:

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How a specific drug works
How steel is made
How fuel cells work
How a computer compiles and executes a program
How your microwave works
How food products are irradiated
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Audience:
Select a specific audience that would be interested in learning about the product or process you explain. For example, you could design a brochure that would be used at the campus health clinic to explain how contraception functions. Or, you could write a letter to members of a local task force or environmental group explaining a process like biological pest control.

Gathering information:
Use Internet and library resources to help you find out more about your topic. You can also draw on material you’ve used in other courses. If you are describing a specific product, look for technical support documents for the product or process you are describing. Remember to keep track of your sources—you’ll need to submit a works consulted list with your final assignment.

Contents:
To help you develop content for your description, first determine whether you are describing a product (an object, mechanism, or phenomena) or a process (a procedure or activity). Composing product descriptions requires you to focus on the parts that make up the product and to describe in precise detail how these different parts work together to make the entire object function.

Writing process descriptions, meanwhile, demands that you break up the process into its significant stages and to describe the various activities that unfold at each step of the procedure.

In either case, remember to choose the contents based on the audience’s level of interest, experience, and knowledge about the topic. Regardless of the type of description, your document should include the following:

- An introduction and overview (including a preview of the parts or stages)
- A body section that describes the various parts or stages in more detail
- A summary section that answers the “So what?” question—that is, how or why learning about this product or process might affect the audience’s thinking or actions.

Format:
For this assignment, you can choose an appropriate format for your audience and topic: a brochure, fact sheet, website, article, or memo format. Include design features to help the reader understand the product or process better: diagrams, headers, bulleted lists, and so on.

Length: 3-4 pages

Visuals:
You can either develop your own visuals or include a “reference visual” (a published copy with instructions on how it would need to be adapted to suit your purpose). Be sure to cite the source for any published visuals you use.
What to hand in:

1. Your planning worksheet
2. A list of the source materials used (e.g. including sources of visuals, product information)
3. Your rough drafts and final drafts
4. Your workshop/final reflection sheet