



GUIDE FOR DEVELOPING MODULES

Revised – March 2014

This guide was prepared to assist those work groups preparing modules for the National Training Program Curriculum. Each module in the curriculum represents a small portion of the standards for educating our weights and measures professionals. The Committee is recommending a standard format be used as described below.

The curriculum, broadly, is the list of all the modules which describe the broad range of knowledge included in the field of weights and measures. It is organized in a hierarchy of modules ranging from broad topics with general information at level one to narrow topics with highly specific information at level three. These modules will be combined to provide the standards for educating our professionals. It is critical to understand that a module is not a lesson plan for the trainer. Rather, it is an organized set of learning objectives that provide measurable outcomes that can be used to verify that the trainer has covered the subject. Since the module is concerned with outcomes rather than inputs, the trainer must use the various learning objectives in preparing the lesson plan for training.

Module Format:

- Module Number and Title
- Overview and Scope
- Prerequisite Modules
- Learning Objectives – Each terminal learning objective with associated enabling objectives

Module Number and Title

Obtain these directly from the Curriculum Plan with the numbers and titles assigned by the Professional Development Committee. Include a revision date under the title.

Overview and Scope

Provide a brief narrative overview and description of the scope of the module. This should generally be a short paragraph of only a few sentences.

Prerequisite Modules

List the module number and title of any prerequisite modules that should be mastered before undertaking the material in this module. Generally, this will remain within one of the four main topic areas in the curriculum. When covering device inspection topics, for example, only include prerequisite modules in the Device Control area with numerical designations beginning with 4.

Learning Objectives

A module will typically have multiple terminal objectives, each with two to perhaps ten enabling objectives. The enabling objectives provide the means to measure mastery of each part of the terminal objective. If the number of enabling objectives exceeds ten, it may be preferable to break the terminal objective into two parts.

Each learning objective should follow the guidelines in the NCWM Body of Knowledge Model. Well-constructed learning objectives should express a single, specific objective. For consistency, the Committee asks that objectives generally be ordered following the table below. The order is to provide a

consistent feel to the curriculum and depending on the needs of the particular module, any one or more categories from this chart may not apply.

The enabling objectives should represent measurable actions that demonstrate a mastery of one aspect of the terminal objective. For base level inspectors, each competency begins with an action verb from the NCWM Body of Knowledge Model beginning with the cognitive levels of knowledge, understanding or application. As the curriculum is expanded to journeyman and advanced levels, additional cognitive levels of analysis, integration and evaluation may be added. Please number the enabling objectives in X.Y or X.YY format, with X coming from the terminal objective number and Y marking the enabling objective number.

Device Module Category	Purpose
Technology and Terminology	These sections should set standards for knowledge of the technology used in this area of responsibility and understanding of the common terms used to communicate effectively about the device.
Device Operations and Functionality	These sections should set standards for knowledge of metrologically significant operations and features of the items under inspection.
Technical Requirements – Inspection	These sections should set standards for understanding of the technical requirements (specifications) for a device or commodity and for the ability to conduct inspection to verify conformance.
User Requirements – Inspection	These sections should set standards for understanding of the requirements incumbent on a device or commodity user and for the ability to conduct inspection to verify conformance.
Test Methods	These sections should set standards for understanding of the physical test procedures used to verify device or commodity performance and for the ability to conduct these tests.

Market Practices Module Category	Purpose
Legal Basis and Scope	These sections set standards for knowledge of the relevant laws and regulations and the expectations regarding the inspection and enforcement activities covering an area of Market Practices.
Technology and Terminology	These sections should set standards for knowledge of the technology used in this area of responsibility and understanding of the common terms used to communicate effectively.
Technical Requirements	These sections should set standards for understanding of the technical requirements applicable to a commodity or practice and the ability to conduct inspections to verify conformance.
Test Methods	These sections should set standards for the ability to conduct tests to verify conformance.

For assistance in working with this template, please contact the current Chair of the Professional Development Committee. A sample module following this guide is also available from the Committee.