# **WEAP Academy Basic Training- Syllabus**

Welcome to the WEAP Academy Basic Training course! This free self-guided online course introduces the basic and intermediate features of the WEAP modeling platform. No previous experience is necessary.

To complete the course, you must be able to <u>download WEAP</u> and run it on your computer (Mac users will need to use a virtual machine to run WEAP through Windows).

#### What does the course consist of?

The WEAP Academy Basic Training is built around the <u>WEAP Tutorial</u> exercises. In each tutorial exercise, you will follow along with the written instructions and/or <u>YouTube videos</u> to build your own sample WEAP model. The course quizzes reinforce the material learned in each chapter. You must score a 100% on each quiz to move on to the next module, but there is no limit on the number of quiz attempts. Homework assignments provide additional exercises in building your own WEAP models.

## What order do you recommend following the course in?

It is generally recommended to follow the modules in order. The modules for *WEAP in One Hour* and *Basic Tools & Scenarios* provide the basic foundation of using WEAP and must be completed first. Afterwards, you will gain access to several modules, with flexibility to complete them in the order of your own interest. Completing the *Refining the Supply* module is required to access the *Hydrology* and *Reservoirs & Power Production* modules. The course is considered complete after the *Final Test & Information* module, accessible once all previous modules are completed.

#### What if I am interested in a WEAP topic not covered in this course?

The <u>WEAP Tutorial</u> contains additional exercises in several topics not covered in this basic training course. Additional topics in the WEAP Tutorial include:

- Water Quality
- The WEAP/QUAL2K Interface
- Snow Hydrology and PEST Calibration
- Financial Analysis
- Linking WEAP to MODFLOW
- Linking WEAP to LEAP

## Where do I go if I need help?

For questions or technical difficulties related to WEAP Academy Basic Training:

Canvas Discussion Board

For general questions on using WEAP:

WEAP User Forum

For video demonstrations of course content:

WEAP YouTube Channel

For information and documentation on a particular topic in WEAP:

 $\rightarrow$  In WEAP, go to Help  $\rightarrow$  Search, then search for your topic.

For information on a particular data parameter in WEAP:

In WEAP, go to *Data* and select the parameter. You will see a brief description of the parameter, the range and default value for the parameter (if applicable), and a button on the right for *Help* to learn more.

#### Do I need a WEAP license to complete this course?

No. Because the example models in the WEAP Tutorial are small and have few object nodes, all the exercises in this course can be completed and saved without a license. Any models created in an unlicensed WEAP will work seamlessly in the full version.

If you are interested in saving larger models, please <u>apply for a license on the WEAP website</u>. Note that certain non-profit, governmental, or academic organizations based in developing countries may be eligible to apply for a free license. Further details found on the WEAP website.

# **Course Contents:**

#### Introduction- WEAP in One Hour

**Download WEAP**, navigate the <u>WEAP Tutorial</u>, and build a basic WEAP area.

## **Basic Tools & Scenarios**

Use Key Assumptions, customize expressions, and create scenarios.

# Data, Results, & Formatting

Export data to Excel, import time-series data, explore results, and modify GIS layers.

# **Refining the Supply**

> Build reservoirs, flow requirements, groundwater, and transmission link objects.

## **Hydrology**

An extensive chapter to build catchment objects, calibrate model streamflows, use automatic catchment delineation, and model surface water-groundwater interactions.

#### **Reservoirs & Power Production**

Build more detailed reservoirs and model hydropower production.

# **Refining the Demand Analysis**

Build more detailed demands, model transmission losses and water reuse, and modify demand priorities.

## **Final Test & Information**

> Test knowledge reviewing course information and look ahead at where to learn more.