Technician Development Program (TDP)

Class Offerings & Descriptions

Level 3-4-5 classes are taken on an elective basis.

Level 3 consists of any combination of 4 of these classes taken. Level 4 consists of the next 4 classes taken. Level 5 consists of the next 3 classes taken.

TDP Level 3-4-5 Classes

Class Description	Class Length	Last Offered	Specific Tools, Supplies & Equipment Needed for Class	Class Attire	Recommended Minimum Prerequisites
Dry Hydrants - This course is intended to familiarize the student with the requirements set forth by NRCS and the National Fire Protection Association for locating, designing, constructing, and maintaining dry hydrant structures for rural fire fighting where no pressurized water system is available.	1 Day	2005,2006	○ Scientific Calculator ○ Triangle ○ Engineers Scale ○ Dot Grid	Classroom Setting	TDP 2 – Ponds TDP 2 - Basic Hydraulics Review FOTG Spec 432
TR 55 (Urban Hydrology for Small Watersheds) - This course provides more intense hydrology instruction to determine peak flows and runoff volumes for specific storm events for the pre-and post-development land use conditions. The program covers the graphical and tabular methods for calculating peak flows and runoff volumes, and explains the tabular method procedures for developing a hydrograph, which is needed for designing storm water basins. The course material focuses on the manual method, but also demonstrates how to use the computer program to obtain the same results. Lastly, a basic approach to developing a preliminary size for a storm water basin is covered.	2 Days	2005	○ Scientific Calculator ○ Triangle ○ Engineers Scale	Classroom Setting	TDP 1 – Runoff Hydrology
Stream Morphology I - Learn the tools used to assess natural channels. The class focuses on understanding the shape, patterns, and profile of streams, with an introduction to the Rosgen stream classification system and the STREAM modules program developed by ODNR's Dan Mecklenburg. The class includes measuring and assessing a stream in the field.	2 Days	2005	○ Scientific Calculator ○ Laser ○ Laser Rod ○ Laser Receiver ○ Clipboard ○ 200 ft. Tape	Prepare for Outdoors and to work in a stream/woods ○ Bug Spray ○ Rubber Boots or Hip-waders	TDP 1- Runoff Hydrology TDP 1 – Basic Soils TDP 2 - Hydraulics
Wetland Designs - This course is intended to allow a student to plan design and construct a wetland based upon soils, hydrology, site topography and risk to life and property.	`2 Days	2005, 2009	○ Scientific Calculator ○ Triangle ○ Engineers Scale	Classroom Setting	TDP 1 – Basic Soils TDP 1 - Runoff Hydrology TDP 2 – Ponds TDP 2 – Soils Engineering

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TDP Level 3-4-5 Classes continued

Class Description	Class Length	Last Offered	Specific Tools, Supplies & Equipment Needed for Class	Class Attire	Recommended Minimum Prerequisites
Surveying with Total Station - This class provides an introduction to surveying with total station. It will cover set-up & operation of the instrument & data recorder, collecting electronic points & downloading data, moving the instrument by re-sectioning, and conducting topographic & cross-section surveys. Classes will be tailored to certain brands of equipment. Class 1 – "Sokkia" total station w/ SDR33 data collector Class 2 – "Contractor" total station w/ SDR33 data collector Class 3 – "Trimble" total station w/ ACU data collector	1 Day	2006	○ Tripod ○ Total Station ○ Data Collector Batteries will need to be charged and ready to go. Note: If you have a different data collector, you will need to know the basics of it to be able to adapt it to how the class is taught.	Classroom Setting	TDP 1 –Basic Surveying w/ levels TDP 2 – Transit Survey Review EFH Chapter 1
Subsurface Drainage - This course is designed to provide students with the ability to design a subsurface drainage system based upon soils, required drainage coefficient, outlet conditions, land topography, and installation methods.	2 Days	2005	○ Scientific Calculator ○ Triangle ○ Engineers Scale	Classroom Setting	TDP 1 – Basic Soils TDP 2 - Basic Hydraulics Review EFH Chapter 14
GIS & Digital Soils- This workshop is designed to assist Soil and Water Districts in setting up a Geographical Information System (GIS) and to become comfortable in the use of digital soils information in land use planning.	2 Day	2005-2009	○ Blank CD's	Computer Lab Setting	Basic knowledge of a PC
Animal Waste Management Systems Design- This class will cover calculating the volume of manure produced by different animals and designing a suitable dry (dry stack) and liquid (holding pond / deep pit) manure storage facility.	2 Day	2007, 2011	○ Scientific Calculator	Classroom Setting	TDP 1 – Basic Soils TDP 2 – Ponds TDP 2 – Construction Matls TDP 2 - Soils Engineering Review FOTG Spec 313 Review NEH Part 651
Livestock Water Systems – This class will cover the planning and design of livestock waterer systems including siphons, pressure systems & spring development.	1 Day	2007	○ Scientific Calculator	Classroom Setting	TDP 1 – Basic Soils TDP 2 – Hydraulics TDP 2 – Ponds Review EFH Chapter 12

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TDP Level 3-4-5 Classes continued

Class Description	Class Length	Last Offered	Specific Tools, Supplies & Equipment Needed for Class	Class Attire	Recommended Minimum Prerequisites
Wastewater Irrigation Systems -This class will cover the concepts and design requirements for installing small irrigation systems to treat and utilize wastewater from outdoor lots and other waste streams. Component design will include storage sizing, pump requirements, pipeline design, and sprinkler head layout.	1 Day	2007	○ Scientific Calculator	Classroom Setting	TDP 1 Basic Soils TDP 2 - Hydraulics
Urban Erosion & Sediment Control I - This class is a primer on erosion processes, erosion & sediment control practices; state & local requirements; effective plan review & program implementation.	1 Day	2007	○ Scientific Calculator ○ Engineers Scale	Classroom Setting	TDP 1 – Basic Soils TDP 1 – Runoff Hydrology TDP 1 – Engr. Plan Prep.
Urban Erosion & Sediment Control II - This class is a follow up the Urban ESC I and will cover program implementation; practice functioning and detail; site implementation; and site inspection, communications & follow up. A field visit will be included in this class.	1 Day	2007	○ Scientific Calculator ○ Engineers Scale ○ Clipboard ○ Hardhat	Classroom Setting with field trip, Prepare for Outdoors	TDP 3 – Urban ESC I
Urban Detention Basin Design - This class provides training on methodology and considerations involved in design and review of stormwater facilities utilized for the purpose of treating water quality. While traditional stormwater ponds are focused on flood control and large storm events, this training will focus on incorporating treatment of frequent runoff events into stormwater ponds. TDP level 1 *Hydrology*, TDP level 2 *Hydraulics* and TDP level 2 *Ponds* are recommended pre-requisites for this course.	2 Days	2007	○ Scientific Calculator	Classroom Setting	TDP 1 – Runoff Hydrology TDP 2 – Ponds TDP 2 - Hydraulics TDP 3 – Urban ESC I TDP 3 – Urban ESC II
Mortality Composting - This course will cover the proper sizing and design of mortality composting facilities. We will also briefly discuss troubleshooting some common management issues related to mortality composting.	1 Day	2008	○ Scientific Calculator	Classroom Setting	TDP 2 – Construction Matls
Agricultural Pollution Complaint Handling - This class includes an overview of Ohio's Agricultural Pollution Abatement Rules/Standards and the SWCD complaint handling procedure. It will feature a field exercise with mock livestock waste spills. Items to be discussed include physically verifying pollution complaints, effectively communicating with landowners, and instructions from partner agencies including Ohio EPA, Ohio Dept. of Agriculture and the ODNR Division of Wildlife.	1 Day	2008, 2013	○ Clipboard	Classroom Setting with field trip, Prepare for Outdoors	TDP 1 – Eng. Tools & Refs

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TDP Level 3-4-5 Classes continued

Class Description	Class Length	Last Offered	Specific Tools, Supplies & Equipment Needed for Class	Class Attire	Recommended Minimum Prerequisites
Agrichemical Handling Facilities - This course will review NRCS standard 309 "Agrichemical Handling Facilities" and the requirements for planning and designing handling and secondary containment facilities for fertilizers and pesticides. The class will review Ohio Dept. of Agriculture requirements for secondary containment.	1 Day	2009	○ Scientific Calculator	Classroom Setting	TDP 2 – Construction Materials and Inspection
Using LiDAR in Conservation Projects - This class will cover the basics of downloading, manipulating, and using your county's LiDAR data from the Ohio Statewide Imagery Program for conservation work. The class will include using LiDAR data in the AutoCAD and ArcGIS environment. It will focus on creating topographic surfaces for engineering surveys and analysis. The class will discuss how this information can be used and what the limitations are.	1 Day	2009		Classroom Setting	
Rain Garden Design - This course will cover methods and considerations for planning and designing rain garden in a residential or light commercial application.	1 Day	2011	○ Scientific Calculator	Classroom Setting	TDP 1 – Basic Soils
Manure Application & Calibration - This course will cover the recommended rates for the land application of animal manure and the calculations necessary to calibrate manure application equipment	1 Day	2011	○ Scientific Calculator	Classroom Setting	
WASCOBs - This course will discuss the planning and design of water and sediment control basins to control field erosion, including using the NRCS EFT modules.	1 Day	2011	○ Scientific Calculator	Classroom Setting	TDP 1 – Runoff Hydrology TDP 2 – Ponds TDP 2 - Hydraulics
Nutrients & Water Quality - This course will discuss various factors regarding agricultural nutrients and their influence on surface water quality. Discussion will focus on the recommended application rates of the Tri-State Fertility Guide manual.	1 Day	2013	○ Scientific Calculator	Classroom Setting	