

Technology Products Customer Classes

Product Link

TC 95

Length: 8 hours (1 day)

Course Format: 50% ILT, 50% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

Product Link is a state-of-the-art satellite, technology-based product that provides a two-way information flow between machine on-board systems and dealers/customers through the Dealer Storefront and EquipmentManager. This class introduces global positioning satellite basics and installation and registration of the software. Participants are also familiarized with the uses (machines it can be installed on) of Product Link and are provided with basic troubleshooting techniques.

Course Objectives:

- Describe Product Link
- Describe how Product Link works
- Explain the basics of GPS
- Identify which version of Product Link works with which machines
- Perform basic troubleshooting of Product Link and its systems

EquipmentManager

TC 96

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

EquipmentManager is the web-based application that is used in conjunction with Product Link. EquipmentManager will display valuable information that is received from a Product Link-ready machine. Information such as hours, location, fencing, and health information can be viewed.

Course Objectives:

- Understand the EquipmentManager website and navigation
- Search for Product Link equipped machines
- Create groups
- Monitor machine location, hours, and information
- Run reports

Technology Products Classes – Customer

AccuGrade Laser

TC 120

Length: 32 hours (4 days)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 8

Student Minimum: 4

Course Cost: TBD

Course Description:

This course covers the AccuGrade Laser Grade Control System for the track type tractors and motor graders. The course also covers the AccuGrade Cross-slope and Sonic Systems found on motor graders. The AccuGrade system can automatically adjust blade height and tilt to improve the efficiency of the machine for final grade work.

Course Objectives:

- Explain survey basics, laser based site layout and setup, the function of each component, the configuration and installation menu functions of the display, and the system operation of the hydraulic control system for each machine
- Perform laser elevation adjustment, blade leveling and machine benching operation, linked calibrations, valve calibrations, and all diagnostic menu functions
- Operate machine(s) using the AccuGrade system
- Locate and identify site and machine control components
- Troubleshoot, isolate, and repair selected problems

Transferring Information to Your Machine

TC 121

Length: 4 hours (.5 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers file preparation for GPS machines. This is a classroom-based course.

Course Objectives:

- Export files to compact flash card for use on machines
- Visually check data with 3D design simulation
- Run machine simulation (drive a virtual machine over the design to preview your job site)

Transferring Data Between the Field and Office

TC 122

Length: 4 hours (.5 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers transferring data between the office and the field. This course is classroom-based.

Course Objectives:

- Transfer a model and CAD file to the field
- Import data into the office
- Create and deliver work orders to a field crew
- Create and deliver design revisions to a field crew

Technology Products Classes – Customer

SCS900 Data Transfer

TC 123

Length: 4 hours (.5 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers transferring data between the office and the field using SCS900. This course is classroom-based.

Course Objectives:

- Transfer a model and CAD file to the field
- Import data into the office
- Create and deliver work orders to a field crew
- Create and deliver design revisions to a field crew

Terramodel Basics

TC 124

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers the basics of using Terramodel for use in machine control. This course is classroom-based.

Students should bring a laptop with them to class, if possible. If a laptop is not available, please contact the Technology Products Department and one will be provided.

Course Objectives:

- Understand the features of Terramodel
- Identify different CAD drawing formats
- Import and export drawings
- Perform basic drafting techniques

Terramodel for Simple Sites

TC 125

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 16

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers working with simple site plans in Trimble's Terramodel. This course is classroom-based.

Students should bring a laptop with them to class, if possible. If a laptop is not available, please contact the Technology Products Department and one will be provided.

Course Objectives:

- Import and export digital files
- Create digital terrain models from contours and other digital files
- Fix information imported from other sources
- Navigate through a CAD file and locate desired layers to be used
- Join, connect, and fix contour lines
- Convert 2D lines into 3D
- Add breaklines to model
- Hold down building pads and adjust contour lines

Technology Products Classes – Customer

Terramodel for Simple Roads

TC 126

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers building simple roads using HALs and VALs in Trimble Terramodel. This course is classroom-based.

Students should bring a laptop with them to class, if possible. If a laptop is not available, please contact the Technology Products Department and one will be provided.

Course Objectives:

- Input horizontal and vertical alignments
- Create shapes and templates for the road job
- Build simple residential roads using alignments

Terramodel Site Modeling I

TC 127

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): TC 125

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This Terramodel course helps students build site models more effectively. Building upon the modeling basics presented in TC125 - Terramodel for Simple Sites, this course teaches students the most efficient methods for creating models suitable for machine control. This course is classroom-based.

Students should bring a laptop with them to class, if possible. If a laptop is not available, please contact the Technology Products Department and one will be provided.

Course Objectives:

- Create models suitable for machine control
- Build site models

Terramodel Site Modeling II TC 128

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): TC 125 and TC 127

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This Terramodel course helps students to build site models more effectively. Building upon the modeling basics presented in TC125 - Terramodel for Simple Sites and TC127 - Terramodel Site Modeling I, this course teaches students the most efficient methods for creating models suitable for machine control. This course is classroom-based.

Students should bring a laptop with them to class, if possible. If a laptop is not available, please contact the Technology Products Department and one will be provided.

Course Objectives:

- Create models suitable for machine control
- Build site models

AccuGrade Office TC 129

Length: 4 hours (.5 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers file preparation for GPS machines. This is a classroom-based course.

Course Objectives:

- Export files to compact flash card for use on machines
- Visually check data with 3D design simulation
- Run machine simulation (drive a virtual machine over the design to preview your job site)

Trimble Business Center - HCE: Managing Your Data in the Office TC 130

Length: 4 hours (.5 day)

Course Format: 70% ILT, 30% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course serves as an orientation and basic training on Trimble Business Center, which provides one interface for modeling and data management. This course is classroom-based.

Course Objectives:

- Import different data types
- View basic surface modeling features
- View data
- Calculate earthwork volumes
- Create, edit, and manage SCS sites, designs, and work orders

Laser-Guided Machine Training TC 131

Length: 8 hours (1 day)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers the operation of a laser-guided machine control system. Learn when and how to operate a system for a dozer, grader, or excavator. The course is taught in the classroom and in a field setting.

Course Objectives:

- Understand principles of laser machine operation
- Set up a site for laser augmentation
- Gain practical experience with laser augmented machine control

Technology Products Classes – Customer

Basic GPS Operator Training

TC 132

Length: 8 hours (1 day)

Course Format: 30% ILT, 70% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

Instruction covers operation of a 3D GPS machine control system. Learn when and how to operate a system for a bulldozer, motor grader, or excavator.

Course Objectives:

- Operate single or dual GPS
- Perform laser augmentation
- Construct total station

Advanced GPS Operator Training

TC 133

Length: 8 hours (1 day)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): TC 132

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course builds upon the foundation provided in TC132 - Basic Operator Training. The course is taught in the classroom and in a field setting.

Course Objectives:

- Understand advanced features and capabilities of the 3D GPS machine control system
- Create simple designs in the cab
- Check diagnostics of their GPS equipment
- Gain more experience operating the system

AccuGrade GPS

TC 135

Length: 32 hours (4 days)

Course Format: 50% ILT, 50% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers the AccuGrade GPS Grade Control System for track type tractors and motor graders. The AccuGrade system can automatically adjust blade height and tilt to improve efficiency of the machine for rough and final grade work.

Course Objectives:

- Explain survey basics, the function of each component, the operation of the display, the installation menu functions, and the system operation of the hydraulic control system for each machine
- Operate machine(s) using the AccuGrade GPS system
- Locate and identify site and machine control components
- Perform sensor calibrations, valve calibrations and machine measure up, and all diagnostic menu functions
- Troubleshoot, isolate, and repair selected problems

Technology Products Classes – Customer

GPS Road Staking

TC 136

Length: 8 hours (1 day)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course covers SCS900 (v.2.0) road staking features. Learn roadway and side slope staking concepts. This course is taught in the classroom and in a field setting.

Course Objectives:

- Stake different alignments
- Stake side slopes and catch points
- Select a road feature to stakeout
- Measure volumes and check grade

Basic GPS Grade Staking

TC 137

Length: 8 hours (1 day)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

Learn to use SCS900 in the field including first time job site setup. The course is taught in the classroom and in a field setting.

Course Objectives:

- Calibrate the jobsite for GPS operations
- View TOPO areas
- Set grade stakes
- Stakeout alignments and 3D points
- Measure material volumes
- Stakeout site features
- Produce volume reports

Advanced GPS Grade Staking

TC 138

Length: 8 hours (1 day)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

Learn to use the advanced features of SCS900 in the field. The course is taught in the classroom and in a field setting.

Course Objectives:

- Perform feature topographic survey
- Perform volume calculation
- Create stakeout lines
- Use advanced features of SCS900
- Use basic road staking features in SCS900

Trimble Business Center – HCE: Takeoff & Data Prep Module Introduction

TC 139

Length: 16 hours (2 days)

Course Format: 70% ILT, 30% Lab, 0% Web

Prerequisite(s): TP 130

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course serves as an orientation and basic training on the Takeoff and Data Prep Modules for TBC (Trimble Business Center). This course is classroom-based.

Course Objectives:

- Understand Takeoff and Data Prep Modules and their basic functions
- Understand who does takeoff and data prep
- Perform basic takeoff and data prep functions
- Create examples of both takeoff and data prep functions
- Run a takeoff report

NEW!

Technology Products Classes – Customer

Introduction to Trimble/ Caterpillar VisionLink TC 140



Length: 8 hours (1 day)

Course Format: 70% ILT, 30% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 12

Student Minimum: 6

Course Cost: TBD

Course Description:

This course serves as an orientation to VisionLink, the replacement to Caterpillar's EquipmentManager software/web application for viewing Product Link enabled machines. This course is classroom-based.

Course Objectives:

- Define differences between Caterpillar EquipmentManager and VisionLink
- Use VisionLink to locate machines and view vital data pertaining to the machine, it's health, and maintenance information
- Navigate menus
- Create alerts
- Create reports
- Show customer benefits of VisionLink software and its uses

Technology Products 101 TC 301

Length: 4 hours (.5 day)

Course Format: 100% ILT, 0% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

Upon completion of this course, participants will have an understanding of AccuGrade and Trimble Machine Control and Guidance (MC&G) products, their similarities, differences, advantages, and disadvantages.

Course Objectives:

- Identify AccuGrade and Trimble components
- Explain differences and advantages of AccuGrade Laser, GPS, ATS, Cross Slope, and Sonic systems
- Explain differences and advantages of Trimble GCS300, GCS400, GCS500, GCS600, and GCS900 systems
- Understand the compatibility and incompatibility issues of AccuGrade and Trimble systems
- Understand the Trimble Asset Manager or Cross Check system and it's capabilities

Technology Products Classes – Customer

Aquila Drill & Monitor Guidance Systems

TC 302

Length: 24 hours (3 days)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

This class introduces technicians to the Aquila Drill Monitor & Guidance Systems. Participants learn the basic operation of the systems, how to install and commission the drill components, and how to diagnose and resolve issues using supporting software. This class is a combination of classroom and heavy lab instruction.

Course Objectives:

- Explain the Aquila product line and ordering process
- Understand the warranty claim process
- Install the Aquila Drill systems
- Commission the Aquila Drill systems
- Service and troubleshoot the Aquila Drill Systems
- Diagnose and resolve issues using supporting software

Trimble AgGPS Agricultural Tractor Control Systems

TC 303

Length: 32 hours (4 days)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

This course covers the Trimble AgGPS Agricultural Tractor Control System. The Trimble AgGPS system can automatically steer the tractor to improve efficiency of farming operations.

Course Objectives:

- Operate machine(s) using the Trimble AgGPS Agricultural Tractor Control System
- Locate and identify site and machine control components
- Perform sensor calibrations, valve calibrations, machine measure up, and all diagnostic menu functions
- Troubleshoot, isolate, and repair selected problems

Technology Products Classes – Customer

Trimble GCS500–900 for Motor Graders TC 304

Length: 32 hours (4 days)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

This course covers the Trimble GCS500-900 Grade Control System for motor graders. The GCS500-900 system can automatically adjust blade height and tilt to improve efficiency of the machine for rough and final grade work.

Course Objectives:

- Explain survey basics, the function of each component, the operation of the display, the installation menu functions, and the system operation of the hydraulic control system for each machine
- Operate machine(s) using the Trimble GCS500-900 Grade Control System
- Locate and identify site and machine control components
- Perform sensor calibrations, valve calibrations, machine measure up, and all diagnostic menu functions
- Troubleshoot, isolate, and repair selected problems

Trimble GCS600-900 for HEX TC 306

Length: 16 hours (2 days)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

This course covers the Trimble GCS600-900 Grade Control System for hydraulic excavators. The GCS600-900 system can be used as an indicate-only system to give the operator an indication to being on grade in relation to the bucket tips.

Course Objectives:

- Explain survey basics, the function of each component, the operation of the display, the installation menu functions, and the system operation of the hydraulic control system for each machine
- Operate machine(s) using the Trimble GCS600-900 Grade Control System
- Locate and identify site and machine control components
- Perform sensor calibrations, valve calibrations, machine measure up, and all diagnostic menu functions
- Troubleshoot, isolate, and repair selected problems

Trimble GCS300-900 for TTT TC 307

Length: 16 hours (2 days)

Course Format: 15% ILT, 85% Lab, 0% Web

Prerequisite(s): None

Instructor(s): Technology Products Department

Student Maximum: 10

Student Minimum: 4

Course Cost: TBD

Course Description:

This course covers the Trimble GCS300-900 Grade Control System for track type tractors. The GCS300-900 system can automatically adjust blade height and tilt to improve efficiency of the machine for rough and final grade work.

Course Objectives:

- Explain survey basics, the function of each component, the operation of the display, the installation menu functions, and the system operation of the hydraulic control system for each machine
- Operate machine(s) using the Trimble GCS300-900 Grade Control System
- Locate and identify site and machine control components
- Perform sensor calibrations, valve calibrations, machine measure up, and all diagnostic menu functions
- Troubleshoot, isolate, and repair selected problems