

# Surveying Training for High School | Surveying eLearning Course

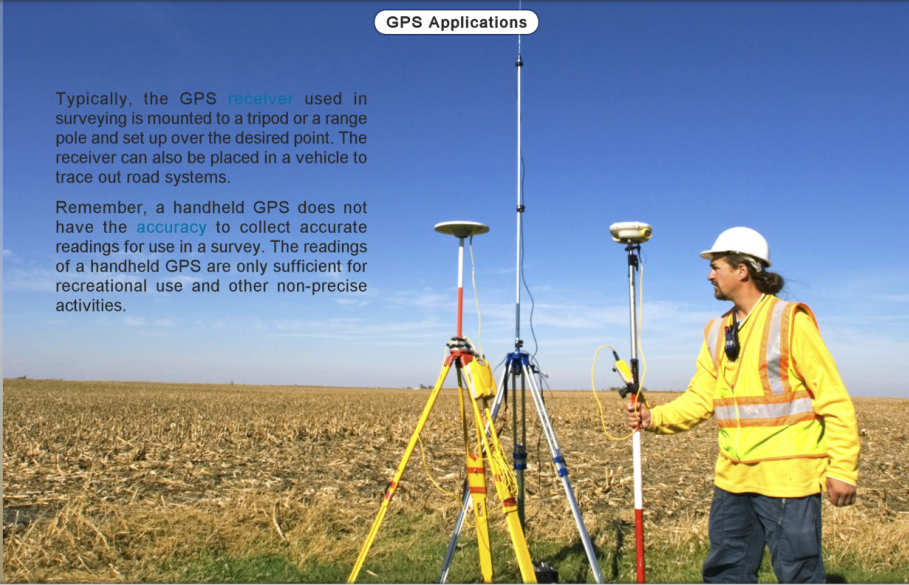
Global Positioning Systems (GPS) - WB803-XB04XEN-E1

Objective 8: Describe the Function of GPS in Surveying and Give Its Advantage

GPS Applications

Typically, the GPS receiver used in surveying is mounted to a tripod or a range pole and set up over the desired point. The receiver can also be placed in a vehicle to trace out road systems.

Remember, a handheld GPS does not have the accuracy to collect accurate readings for use in a survey. The readings of a handheld GPS are only sufficient for recreational use and other non-precise activities.



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## Learning System: MB803

Because surveying is utilized in so many aspects of industry, the skills taught by Amatrol's surveying eLearning course (MB803) open the doors to careers in various fields, such as manufacturing, transportation, and construction. Amatrol's surveying eLearning course introduces the fundamentals of surveying, which includes focusing on determining the terrestrial or three-dimensional position of points and the distances and angles between them; this signature Amatrol approach to curriculum reinforces both theory and practice, which produces a well-rounded understanding of the topic. After completing this training system, learners will be able to operate surveying and mapping tools, including global positioning systems (GPS) associated with surveying, but will also understand the relevant key concepts.

## Interactive eLearning

### Interactive Surveying eLearning Curriculum

Amatrol's surveying training system features interactive eLearning curriculum that integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia [eLearning curriculum](#) includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews. Specific surveying topics covered include: surveying fundamentals; level-transit operation; surveying applications; mapping; topographical maps; and global positioning systems (GPS). Within these topics, learners will study objectives like operating a level-transit; performing a survey using trigonometric leveling to calculate the height difference; reading a topographical map; and using GPS to perform a survey.

### Free Learning Management System (LMS)

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

## Teach Hands-On Skills

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### What are Four Surveying Applications?

These are some of the applications of surveying:

- **Establishing or Retracting Property Boundaries** - Before initial construction designs can be created, the property boundaries must be determined. This will give the designers the information needed for the layout of the structure and the surrounding area.
- **Creating Topographic Maps** - A topographical map is the graphic representation of surface features. It indicates the relative positions and elevations of these features.
- **Laying Out and Staking to Guide Construction** - The boundaries of a structure need to be laid out, as do locations of certain features such as utility lines or existing construction.
- **Measuring and Plotting the Position of Constructed Works** - Often, the actual construction is surveyed to check for accuracy. If a wall is off by a few inches, the whole structure will be off.

### Additional Info

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#### Requires:

- Computer (see [Computer Requirements](#))

#### Options:

- Surveying 1 Learning System (96-SV1)
- Amatrol SkillTrace Software (94-ST1)

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