

The Green Check GPS Training Course

The Canadian Ecology Centre Foundation (www.canadianecology.ca/) is the author and provider (evaluator) of certified GPS programs. It will register participants, who have completed a certified course, in a national/international data bank (those needing this for professional, commercial, insurance or leadership reasons).

The course or program participant will be able to identify and communicate a location on a map, in tandem with a GPS unit. This will include the use of the map datum source, the coordinate system (UTM and latitude/longitude) and a compass. Additional navigation information, such as direction and distance (scale), as related to a map or "real" feature, would complement the identification.

Training is essential to using GPS effectively. If you need to use GPS, ask yourself these 3 questions:

1. When you report GPS coordinates, are you certain those receiving the information are using the same coordinate system and numeric format?
2. How accurate are the coordinates? That is, how close can someone actually come to finding your exact location?
3. Do you know what you can do to improve the accuracy of the location information you provide?

GPS Certification training with identified expectations and standards is important for:

- Search and Rescue Personnel
- Guides/Outfitters
- Law enforcement
- Fire Fighters / Ambulance
- Outdoor Enthusiasts
- Natural Resources Field Workers
- Pipeline and Hydro Field Workers
- Tourism Operators
- Forestry and Forest Industry Workers
- Trappers, Hunters, Anglers
- Well Contractors and Well Technicians

Explore the relationship between the map, the compass and the GPS unit

Overall Expectation - As an overall expectation, by the end of the course or program the participant will be able to explain or define a location with the following location standards:

- the map datum source
- the coordinate system (UTM and latitude/longitude)
- direction in relation to a defined point (location) on a map
- details (anecdotal) related to the location

For the Map - Skills and Content

As a general expectation, by the end of the course or program, a participant will be able to examine a map to utilize the following, basic map skills:

- Identify either a standard USGS 1:24,000 or Canadian 1:50,000 topographical map.
- Explain the use of the scale on the map to determine distances from two points, A to B.
- Identify the map datum source on the map (required for the GPS setting).
- Identify the UTM and latitude/longitude grid "tick" or indicator marks in the corners and margins of the map.
- Demonstrate and identify a location(s) on the map "rounded off" to the nearest 100 m for the UTM system (i.e. E 5129400) or to the nearest "tenth" of a decimal minute for latitude/longitude (i.e. N 46° 17.700'). Tolerances for UTM will be +/- 100m; for lat./long. will be rounded off to the nearest 0.500 or one-half minute.

For the Compass - Skills and Content

As a general expectation, by the end of the course or program, the participant will be able to utilize the compass to accomplish the following:

- Identify (and demonstrate where) Magnetic North is located, as related to present location (surroundings).
- Recognise and express the identified location in relation to a north, east, south or west direction as related to surroundings, for example the east side of the road, the north side of the lake, the west fork of the trail etc...
- Describe the location (with coordinates) on the map and give directional details or physical features to help with location.
- Identify component parts of a compass with adjustment to find Magnetic North.

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For the GPS - Skills and Content

As a general expectation, by the end of the course or program, a participant will be able to utilize the GPS unit to accomplish the following for the set-up and operation of the unit:

- Find the Navigation setting on the GPS Set-up menu.
- Enter the map datum setting - WGS 84 (NAD 83) or NAD 27 according to map datum source on the 1:50 000 or 1:24 000 topographical map.
- Enter either UTM and latitude/longitude coordinate system as a setting.
- Read the Position or Navigation page of the GPS unit (UTM or latitude/longitude) in relation to the topographical map.
- Mark a Waypoint (GPS location) and identify the easting and northing and the latitude and longitude coordinates.
- Save a Waypoint (as above, with coordinates).
- Retrieve a Waypoint (as above, with coordinates).
- Demonstrate the function GoTo (a destination, as above, with coordinates).

Evaluation - If a participant requires certification

At the conclusion of the course a test will be administered to the participant. The successful candidate will be granted a certificate (cardholder) and be entered in the national/international data bank. This membership and certification will be valid for three years. A renewed certification will be issued at the completion of another test.

- Course – one day – Maximum 10 participants
- Location – your location
- What is supplied – Instructor will supply Manuals and an interactive CD Rom for each student
- Instructor will supply each student with a GPS unit and a compass for the course
- Maps will be provided for the exercises
- Course Fee / expenses – to be determined

The contractor shall provide

- Course location

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- Power Point Projector unless otherwise stated
- 5 topo Maps - 1:50,000 scale of the course location

Instructor - Paul OLMSTEAD – email – polmstead@compusmart.ab.ca

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• Instructor Bio

- **27 years in law enforcement specializing in Search and Rescue and public safety.**
- **Nationally awarded for achievements and developments in Search and Rescue**
- **Past President of the Alberta Search and Rescue Association**
- **Presently works with the SAR Alberta Association as the training director**
- **Contracts to the Nunavut and NWT Governments to provide training and develop course material.**