

Land Navigation and GPS Use - General Knowledge Course

Day 1

Introduction

- Facilities | Instructors | Distribute GPS Units, Maps | Student Introductions

Theory Portion | Day 1 | ~0830 - 1230 | (Powerpoint)

- Introduce Technical Terms (Group exercise)
- Basic Paradigms (UTM vs Lat/Long)
- Coordinate Formats (Deg, Min, Sec, Dec)
- Map Features
- Survey Datums
- Compass Use
- (Optional) History of North American Datum Systems

Practical Portion | Day 1 | ~1300 - 1630 | (Group Discussion)

- Discussion of GPS technology and introduction to GPS units
- Setup: Formats, Units, Map Datum, batteries. Familiarize with controls (Group)
- Introduce Compasses
- Setup: Declination, review compasses and differences
- Discussion: characteristics of your Baseplate Compass
- Introduce 'red in bed', basic use of degree bezel, mirror, backbearings etc.

Day 2

Theory Portion | Day 2 | ~0830 - 1230 | (Group Discussion)

- "Introduction to GIS and its Uses"
- Distribute PDF digital maps to group
- Download Avenza, Canada Topo, Google Earth, other? (Group)
- Import local 1:50,000 and 1:20,000 maps into Avenza; demonstrate location
- Discussion of incorporation of cell towers, satellite networks and GPS tech to accomplish 'general use' tasks on smart phones
- Discussion of industry items using same group of tech: INReach, SPOT, ELT Devices, other

Practical Portion | Day 2 | ~1300-1630 | (Outdoor Exercises)

- TBD: Group Exercises outdoor using both mapping / course heading techniques
- TBD: Group Exercises outdoor using GPS/ Tracking Apps available