

BASIC GEODESY 101

This course is an introduction to basic Geodesy and is a prerequisite to taking the GIS courses. The course will cover the basis of how coordinates and elevations are derived and how coordinate reference systems (CRS) are created.

The differences between geodetic and projected coordinates will be explained and real world examples will be given covering offshore Senegal Block Boundaries and Borders. Horizontal datum transformations methods and how they affect the determination of coordinates will be reviewed.

Geoid models will be explained and their importance in determining MSL elevations using GNSS data. The EPSG registry and how it is an integral database for geodesy application in oil and gas will be covered.

The course will cover:

- The shape of the Earth
- The evolution of Earth models
 - Ellipsoids
 - Datum's
- Coordinate Reference Systems used to measure location
 - Horizontal
 - Vertical
- Geodetic vs. Projected coordinates
 - Units and formats
- Angles and measurement
 - The Three Norths
- Transformation methods
- Geoid models
- the Local Systems of Senegal
- Border & Block Boundary (CRS data awareness differences)
- The EPSG Registry and its use

More information contact Mr. Portsmouth @jackiep@santosinc.com