

Road Scholar Course Outline

State Road Map:

General Information:

Marginal information
Locating and Interpreting symbols
Locating and Interpreting features
Map location/scale/legend/tables/insets

Distance and Speed Computations:

Determining distance between features (state/county hwys., U.S./Federal hwys., interstates)
Speed/Time calculations
Metric/English unit conversions

Topographic Map:

General Information:

Marginal information
Locating and Interpreting symbols
Locating and Interpreting features
Map location/series/scale/index/legend/tables/insets
Map projections (Standard and Transverse Mercator, Gnomonic, Lambert Conformal Conic, azimuthal/polar)
Note: map projections may be covered in connection with geodesy
Estimating/scaling geographic coordinates of features and symbols

Distance and Speed Computations:

Determining distance between features (using map scale)
Speed/Time calculations
Metric/English unit conversions

Contours/Elevation Data:

Interpreting contours (contour interval, contour values, depression contours)
Spot elevations and bench marks
Profiles (as derived from contours)
Determining stream flow direction (contour turnbacks, elevation differencing)
Determining elevation of features and symbols
Identifying landforms based on examination of contour patterns

Gradient Computations:

Determining slope gradient (road gradient, bank gradient)
Determining stream gradient
Comparison of slope and stream gradients (measurement and expression)

Geodesy (reference Topo Map):

Survey control marks (horizontal and vertical)
Azimuths and bearings (basic definition and interrelationship)
Magnetic declination (magnetic north, true/geographic north, grid north)
Azimuths and bearings (conversion among the various systems)
Sector Reference System
Public Land Survey System (PLSS)