**GEOG 3050 – Cartography & Graphics** is an introductory-level course in cartography and serves as a foundation course for GIS. Course topics include map projections, grid systems, the construction and interpretation of topographic maps that show the shape of the Earth's surface, the use of thematic maps to portray various types of geographically-referenced data, a brief introduction to GIS, surveying and GPS mapping. This course covers technical aspects of cartography (not artistic and design aspects) and includes frequent use of mathematical calculations (for example, calculating distance and area on maps).