



**Interaction Diagram** – Depicts the relationship of *geomatics* (geodesy, in situ data collection, remote sensing, photogrammetry, cartography, visualization, geographic information systems, and databases) as it relates to mathematics and logic and the physical, biological, and social sciences as well as business. This diagram and caption were adapted and modified from Jensen (2005) who focused on remote sensing, cartography/surveying, and geographic information systems in the center as the *mapping sciences*.

**geomatics**, *n* (Oxford English Dictionary, 2005)

The mathematics of the earth; *spec.* the science of the collection, analysis, and interpretation of data, esp. instrumental data, relating to the earth's surface.

**1972** *Gloss. Geol.* (Amer. Geol. Inst.) 293/2 *Geomatics*, the mathematics of the Earth. **1987** *ITC Jrnl.* No. 4. 277 'Geomatics' is defined here as the scientific investigation of the structure and properties of geo information, the methods of its capture, classification, qualification, spatial definition, representation and use, and the infrastructure to secure its optimal application. **2000** J. N. PELTON *E-sphere* xiii. 206 Another hope for the future is the practical application of space geomatics to saving the earth's biosphere and more effective urban and transportation planning.