



cost path to the missing mushroom hunters destination

Lecture/Lab: MW, 9-9:50 in 128 Chiles

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An introduction to mapping, geospatial data, cartography and spatial analysis, this class addresses questions in three major areas:

1. How can people sense and represent the 'real' world?
2. How can we record, recall, and analyse this information?
3. How can we communicate and discuss this information with other folks?

The class explores these questions through the applied use of software designed to facilitate the recording, symbolization, analysis, and communication of data about the world - that is turn data about the real world into information useful for acting in the real world. This is often done with maps, and much of the work will involve the use of "Geographic Information Systems (GIS)" or other mapping software.

The combined Lecture/Labs cover the basic theory and practices of geospatial data management and analysis, and the techniques of modern digital cartography using Geographic Information Systems. Class discussions and other activities explores Geographic Information Science - how the development of modern geospatial data collection and analysis capabilities are changing the way science and society operates. In general, lectures and group exercises will occur at the beginning of the class, while time will be given for students to work on labs (done individually or sometimes in groups) in the last hour or so of class. By the end of the class, students should have a sound understanding of how spatial data is represented, how the data is stored and analysed, how the results of this are communicated, and why and when these techniques are appropriate. Applied skills learned include the ability to follow instructions, to find help when the instructions fail, and to create maps and conduct basic spatial analysis using GIS software.

Textbook: *Geographic Information Science and Systems*, Fourth Edition (2015) by Longley, Goodchild, Maguire and Rhind.

Additional required and supplemental readings will be made available online