

# GISC7364 - Demographic and Epidemiological Analysis and Modeling

[GISC 7364](#) Demographic and Epidemiological Analysis and Modeling (3 semester credit hours) Examines the demographic and epidemiological terminology, key statistical measures, data sources, models, projection methods and analysis techniques of the distribution of population and its characteristics as well as disease, mortality and fertility patterns. The underlying theoretical foundations are examined and extended into the spatial domain to understand the spatio-temporal dynamics of population characteristics and disease patterns. A solid knowledge of population and disease patterns, either on a local or global level, is essential to many disciplines engaged in planning for the public and private service sectors, public health, transportation networks, migration patterns or regional development projects. Prerequisite: [GISC 7310](#) or equivalent. (3-0) R