

GISC5395 - Satellite Geophysics and Applications

[GISC 5395](#) Satellite Geophysics and Applications (3 semester credit hours) This course concerns both the theory and application of observing geophysical fields from space-borne platforms. The observation procedures including orbital mechanics are introduced and signal propagation, errors and uncertainties will be addressed. Concepts of current satellite missions such as radar and laser altimetry, space gravimetry and magnetometry, and synthetic aperture radar will be discussed. Applications of satellite geophysical observations in tectonics, geodynamics, ocean and ice surface monitoring, hydrology, and terrain modeling will be introduced through student projects and presentations. (3-0) Y