

## APM/SES 598 Near Earth Space Sensing and Data

This course will provide an overview of Earth's near space environment specifically focusing on the upper atmosphere/ionosphere and the satellite low Earth orbit region. It will cover coupling from the lower to upper atmosphere, methods of temperature and density retrieval in the atmosphere from various instrumentation, measurement techniques, and data processing methods (e.g. noise, filtering, and retrieving wave signals). The course will have an emphasis on the use of real data. Course performance will be assessed through several homework assignments and in class labs, journal paper readings and presentations, and an end of the semester course project.

Pre-requisites: This course is open to degree or nondegree-seeking graduate students. Undergraduates must have completed at least one course related to computer programming, and must have completed calculus III (vector and multivariable calculus).