

GG5760: Advanced Remote Sensing Environmental Satellite, EXPL 2312, Thursday, 04:30 PM-07:10 PM

**Course Instructors: Dr. Donglian (Lilian) Sun**

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Office hours: Tuesday 3.00-5.00 PM

Course Web Page: <http://courses.gmu.edu>

### Remote Sensing Applications

This course is designed to give students with Earth science and remote sensing background a thorough introduction to gathering an overview of Remote Sensing and Applications, such as surface and atmospheric information retrieval, flood and drought detection and precipitation retrieval from passive and active satellite observations, and remote sensing applications in coastal and disaster studies. The main emphasis of this seminar is earth science, weather and climate, satellite remote sensing applications in Energy, Hydrology, and Disaster studies. Project presentation and paper (20 pages including figures and tables) are required.

Date	Topic	Instructor
Sept. 3	Remote sensing Introduction and Satellite Systems	Sun, GMU
Sept. 10	Sensor fusion	Resmini, GMU
Sept. 17	Remote sensing of surface radiation budget	Sun, GMU
Sept. 24	Remote Sensing of surface temperature	Sun, GMU
Oct. 1	Radar Precipitation	Kitzmilller, NOAA
Oct. 8	Remote sensing of precipitation	Sun, GMU
Oct. 15	Active remote sensing of precipitation	Kwiatkowski, NASA
Oct. 22	Atmospheric LIDAR Application	Massaro, GMU
Oct. 29	Remote sensing of soil moisture and ET	Sun, GMU
Nov. 5	Drought detection from satellite observations	Sun, GMU
Nov. 12	Remote sensing of snow/ice	Hall, NASA
Nov. 19	Drought detection from satellite observations	Sun, GMU
Nov. 26	Thanksgiving break	
Dec. 3	Flood detection from satellite observations	Sun, GMU
Dec. 10	Remote Sensing applications in disaster studies	Sun, GMU
Dec. 17	Project presentation	Students
Dec. 17	Project paper due	Class Project

- **Grading**

60% will be based on an original research project report.

40% will be based on class assignments, class participation and presentation of research progress.