

**SYLLABUS: FALL SEMESTER--2016**  
**DR. HAACK**  
**GG5 579 REMOTE SENSING**  
**MONDAY 4:30-7:10 pm, Exploratory Hall 2103**

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<u>Date</u>	<u>Topic</u>	<u>Chapter</u>
Aug 29	Introduction, Basic Definitions, Overview	1
Sept 5	Labor Day – No Class	
12	Electromagnetic Spectrum/Energy Flow Profile	2
19	Photointerpretation Principles and Spaceborne Photography	3, 5
26	Literature and Organizations, Land Use/Land Cover, Overview Spaceborne RS, Multispectral Systems	4, 6, 20
Oct 3	Landsat Orbit and Sensors	6
10	Columbus Day, No Class	
11	TUESDAY Visual Interpretation, Landsat TM, SPOT	10
17	Landsat, SPOT cont., ASTER, IRS	17
24	<b><u>Midterm Examination</u></b> , Multispectral continued	
31	Landsat Image Analysis Presentations	
Nov 7	Ultraviolet, Radar	7, 21
14	Radar, Fine Spatial Resolution Sensors, Multistage and Ratio Estimators,	13, 14
21	Guest Speaker, Elevation Extraction, Hyperspectral, Thermal	8, 9, 15
28	Guest Speaker, Coarse Spatial Resolution, Accuracy	14,18,19
Dec 5	Future Systems, GIS, Digital Processing	11, 12, 16

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**Instructor:** Barry Haack, Exploratory Hall 2411, bhaack@gmu.edu, 703 993-1215  
**Office Hours:** Monday 1400-1600 and by appointment

**Final examination:** Monday, December 19, 4:30-7:15 pm

**Required Text:** Introduction to Remote Sensing, Fifth Edition, 2011, J. Campbell, R. Wynne.

**Grading Procedure:** Course grade will be equally based on letter grades from; 1) midterm exam, 2) comprehensive final exam, 3) assignments and 4) term paper. Letter grades for the examinations are based on a class/exam specific instructor determined curve (Predetermined percentile levels are not used). Failure to satisfactorily complete all assignments will result in a course grade of F.

**Assignment Policy:** The assignments are an integral aspect of this course providing a significant component of the educational process. Because of the importance of these assignments, some policies concerning their completion are necessary. These policies include:

1. Assignments are due at the beginning of the class as scheduled.
2. All late assignments, unless a valid excuse is accepted, will be penalized on a geometrically progressing basis as follows 0, 1, 2, 4 etc. penalties.
3. Assignments not completed or inadequately completed are sufficient reason to receive a failing course grade.

**Honor Code:** Students are expected to review and abide by the GMU Honor Code.

**Course Objectives:** GGS 579 provides an understanding of the use of remote sensing for the collection and analysis of spatial information. The emphasis is on non-photographic remote sensing and visual rather than digital analysis methods. The course will concentrate on operational/available systems and primarily spaceborne platforms. Much of the learning experience is out-of-class, hands-on assignments as well as extensive examination of imagery in class.

**Prerequisite:** GGS 579 has a prerequisite of a course in air photo interpretation (Geography 412) or Geography 550, Geospatial Science Fundamentals, equivalent course or Permission of Instructor.

**Classroom Etiquette:** It is inappropriate to use cell phones in the classroom. It is also inappropriate to use computers for any purpose other than taking notes. Please abide by these courtesies for your classroom peers, the instructor and the educational process.