

SYLLABUS: FALL SEMESTER--2019
DR. HAACK
GGG 579 REMOTE SENSING
THURSDAY 4:30-7:10 pm, Exploratory Hall 2103

<u>Date</u>	<u>Topic</u>	<u>Chapter</u>
Aug 29	Introduction, Basic Definitions, Overview	1
Sept 5	Electromagnetic Spectrum/Energy Flow Profile	2
12	Photointerpretation Principles and Spaceborne Photography	3, 5
19	Literature and Organizations, Land Use/Land Cover, Overview Spaceborne RS, Multispectral Systems	4, 6, 20
26	Landsat Orbit and Sensors	6
Oct 3	Visual Interpretation, Landsat TM, SPOT	10
10	Landsat, SPOT cont., ASTER, IRS	17
17	Multispectral continued, ultraviolet, radar	7, 21
24	<u>Midterm Examination</u> , radar	7,21
31	Landsat Image Analysis Presentations	
Nov 7	Fine Spatial Resolution Sensors, Multistage and Ratio Estimators,	13, 14
14	Guest Speaker, Elevation Extraction, Hyperspectral, Thermal	8, 9, 15
21	Guest Speaker, Coarse Spatial Resolution, Accuracy	14,18,19
28	THANKSGIVING	
Dec 5	Future Systems, GIS, Digital Processing	11, 12, 16

Some schedule adjustments may be required to accommodate guest speakers.

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

Final examination: Thursday, December 12, 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.