

Geography 403/704
Remote Sensing: Environmental and Land Use Analysis
Lab Syllabus
Spring 2022

Lecture Location and Time:

LEC 401 11:00am-12:15pm

Tuesday-Thursday BOL 281
Prof. Mark D. Schwartz

Lab Locations and Times: Bolton Hall 262 and Mitchell Hall 353

LAB 801 2:00 PM-3:50 PM

Wednesday

Wei
Fan

LAB 802 2:00 PM-3:50 PM

Thursday

Wei
Fan

TA: Wei Fan

Office: Bolton 441

Office Hours: Tuesday 1:00-2:00 pm or by appointment

Email Address: weifan@uwm.edu

Objectives and Introduction

* Labs provide hands-on opportunities for you to enhance knowledge learned from lectures and readings, and to build up your skills in Remote Sensing related tasks. * The first several labs are exercises on basic concepts of remote sensing and will not be using computers; later you are specifically expected to get familiar with using TerrSet/IDRISI, a PC-based image processing software package.

Logistics

1. You need to have a **calculator** with scientific notation, #2pencil (with eraser), and several memory sticks (as options) to hand in assignments.
2. Required software has been installed on machines in MIT 353 as well as other campus general access computer labs. You can also access the software through the campus virtual lab environment. Here is the link: <https://uwm.edu/technology/remote-computer-labs-for-students/>

3. Image and other files required are downloaded from the class Canvas page.
4. Each exercise file is a .zip file and should be extracted into C:\temp\Geog403\
5. Required handouts for labs will be passed out at the beginning of each lab and are also downloadable from Canvas for you to preview. Software tutorials are in the software package.
6. The Canvas sites for this lab class has been set up for the labs to check grades, progress, and for other required information.

Important

Regularly check the course Canvas site for assignments, notes, and updates. This is essential since important material will be posted here throughout the semester.

Grades

The final lab score is based on 200 points accumulated through the successful and timely completion of 11 lab exercises. The lab exercises are due to be handed in at the beginning of a subsequent lab or as indicated by the TA. Since the datasets we will be working with occupy large amounts of file space, most lab assignments upon completion will be handed over to the TA in digital format on a memory stick or uploaded.

Late submission

Late submission of any assignment is not allowed without prior approval of the TA. You will be given one week to finish a regular lab or two weeks for longer ones. Late lab assignments will be allowed only for acceptable reasons.

Geography 403/704 Labs Tentative schedule (Spring 2022)

Week	Dates	Lab Topics	Location/Points
1	Jan. 26–27	No labs this week	
2	Feb. 02–03	Lab 1 Introduction to Image Interpretation	BOL 262/10
3	Feb. 09–10	Lab 2 Air Photos as Quantitative Data	BOL 262/25
4	Feb. 16–17	Lab 2 (Continued)	BOL 262
5	Feb. 23–24	Lab 3 E-M Emission and Multi-spectral Reflectance	BOL 262/15
6	Mar. 02–03	Lab 4 Introduction to IDRISI	MIT 353/20
7	Mar. 09–10	Lab 5 Image Processing with IDRISI	MIT 353/30
8	Mar. 16–17	Lab 6 Thermal and Microwave Remote Sensing	MIT 353/15
9	Mar. 23–24	Spring Break No Classes	
10	Mar. 30–31	Open Labs this week	MIT 353
11	Apr. 06–07	Lab 7 GIS Applications	MIT 353/20
12	Apr. 13–14	Lab 8 Urban and Land Use	MIT 353/20
13	Apr. 20–21	Lab 9 Weather and Climate	MIT 353/15
14	Apr. 27–28	Lab 10 Agriculture and Forestry	MIT 353/15
15	May 04–05	Lab 11 Geology and Soils	MIT 353/15
16	May 11–12	Open Labs this week	MIT 353