

ESM186L – Environmental Remote Sensing Lab

Winter 2012

Location: 1137 PES

Hours: 3:10-6:00 pm, T, Th

Door code and computer access information will be provided to registered students on the first day of lab.

Base Directory: My Documents\ESM_186\Lab_Data

Your Directory: My Documents\ESM_186\[*your name*]

Schedule

Date	Lab*	Topic
January 10	L1	Introduction to ENVI
January 12	L1, A1	Fieldwork Exercise, Introduction to ENVI, Image Exploration Assignment
January 17	A1	Fieldwork Exercise, Image Exploration Assignment
January 19	L2	Georegistration & Mosaicking
January 24	L3, A2	Vector Data, Georegistration Assignment
January 26	A2	Georegistration Assignment, cont.
January 31	L4	Data Reduction I: Indexes
February 2	L5	Data Reduction II: Principal Components
February 7	L6	Unsupervised and Supervised Classification
February 9	A3	Classification & Data Reduction Assignment
February 14	A3	Classification & Data Reduction Assignment, cont.
February 16	A3	Classification & Data Reduction Assignment, cont.
February 21	L7, A4	Change Detection Lab, Change Detection Assignment
February 23	L8, A4	Map Composition Lab, Change Detection Assignment, cont.
February 28	A4	Change Detection Assignment, cont.
March 1	A4	Change Detection Assignment, cont.
March 6	L9	Wildfire Exercise Lab
March 8	L10,A5	Spectral Mapping and Unmixing Lab & Assignment
March 13	L11,A5	LIDAR Lab Exercise, Spectral Mapping and Unmixing Assignment, cont.
March 15	A6	LIDAR Assignment

* LX = Lab exercise #X; AX = Lab Assignment #X.

Lab Exercises

You will complete 10 lab exercise tutorials in ESM186L. These tutorials have been designed to familiarize you with common image processing tools and will provide you with the background and skills necessary to complete your assignments. In addition, there will be two days of fieldwork exercises to introduce you the data collection techniques corresponding to remote sensing research.

Assignments

There will be 4 lab assignments in ESM186L and each of these assignments will be worth 25% of your grade for the quarter. If you are unable to complete an assignment during the time provided in the lab sessions, check the computer lab's schedule and return to work on it when no classes are meeting. All assignments should be submitted by 8am on the day it is due to the ESM186L Smartsite page at smartsite.ucdavis.edu. Late work will be penalized.

All assignments must be submitted electronically in Microsoft word format. Please remember that your homework assignments must be clear, well-written, and of professional quality (include your name, titles/numbering, etc). You will be required to include screen shots of your work in your lab write-ups. These MUST be inserted into your Word document as JPEGs.

When submitting your assignments, please use the following file naming convention:

Last name, First name, Lab#, and the date submitted (i.e. **Doe_John_Lab4_05242011**).

Date	Lecture #	Lecture homework assigned or due	Lab homework assigned or due
January 10	Lecture 1	Homework 1 assigned	
January 12	Lecture 2		Homework 1 assigned
January 17	Lecture 3		
January 19	Lecture 4		
January 24	Lecture 5	Homework 1 due; HW 2 assigned	Homework 1 due; HW 2 assigned
January 26	Lecture 6		
January 31	1st midterm		
February 2	Lecture 8	Homework 2 due	
February 7	Lecture 9	Homework 3 assigned	Homework 2 due; HW 3 assigned
February 9	Lecture 10		
February 14	Lecture 11		
February 16	Lecture 12	Homework 3 due;	
February 21	Lecture 13		Homework 3 due; HW 4 assigned
February 23	Lecture 14	Take home Midterm assigned	
February 28	2nd midterm	Take home Midterm due	
March 1	Lecture 16		
March 6	Lecture 17	Homework 4 assigned	
March 8	Lecture 18		
March 13	Lecture 19		Homework 4 due
March 15	Lecture 20	Homework 4 due	Lab 6 - in class exercise
March 24	3.30-5.30 pm	Final	