Daily schedule and reading list

			class	type of class	reading
september	**week 1**	7th	introduction, course logistics, overview of remote sensing and aerial photography	LECTURE	
	week 2	12th	air photo interpretation elements	LECTURE	jensen 2006 ch 1 p 1-20; ch 4 p 91-99; ch 5 p 127-148; ch 6 p 149-174, 189-192
		13th	lab 1 - introduction to air photo interpretation: urban and industrial land use	LAB	
		14th	scale, resolution, distortion, relief displacement, vertical exaggeration, ground-camera relationship; introduction to electromagnetic radiation	LECTURE	jensen 2006 ch 13 p 443-446, 456-502
	week 3	19th	electromagnetic radiation (continued), multispectral remote sensing of vegetation, infrared photos	LECTURE, LAPTOP	
		20th	lab 2 - interpretation of vegetation and agriculture in visible to near-infrared wavelengths	LAB	jensen 2006 ch 2 p 37-53
		21st	remote sensing of vegetation, forests, and the swir region	LECTURE	
	week 4	26th	image resolution: spatial, spectral, temporal, and radiometric properties	LECTURE	jensen 2004 ch 1 p 1-20
		27th	lab 3 - introduction to envi and image enhancement	LAB (envi)	
		28th	image enhancement techniques	LECTURE, LAPTOP	jensen 2006 ch 7 p 193-232

october	**week 5**	3rd	medium resolution sensors and data; lab 4 - data download and import	LECTURE, LAPTOP
		4th	lab 5 - image enhancement and resolution merge in arcgis	LAB (arcgis)
		5th	remote sensing of vegetation	LECTURE
	week 6	10th	band arithmetic, image ratios, vegetation indices	LECTURE
		11th	lab 6 - spectral transforms (simple ratio, ndvi, kauth-thomas)	LAB (envi)
		12th	vegetation indices and kauth-thomas tasseled cap transform, continued	LECTURE
	week 7	17th	making maps from satellite imagery: overview of classification and pattern recognition	LECTURE
		18th	lab 7a - unsupervised classification	LAB (envi)
		19th	unsupervised classification methods and algorithms; remote sensing of archaeology	LECTURE
	week 8	24th	lab 7b - unsupervised classification (continued); supervised classification methods	LECTURE, LAPTOP (arcgis)
		25th	lab 8a - supervised classification (training site collection)	LAB (envi)
		26th	high resolution satellite data sources; lab 8b - assessing training data statistics	LECTURE, LAPTOP (excel)
october	**week 9**	31st	MIDTERM EXAM	
november		1st	lab 8c - supervised classification algorithms	LAB (envi)
		2nd	coarse resolution data sources; review data and applications	LECTURE

week 10	7th	classification error, accuracy assessment, accuracy measures; global land cover mapping	LECTURE	
	8th	lab 8d - classification post-processing (filters, hand editing, masks)	LAB (envi, arcgis)	
	9th	accuracy assessment, sample design	LECTURE	
week 11	14th	guest lecture: geological applications of remote sensing (mutlu ozdogan)	LECTURE	
	15th	lab 9a - accuracy assessment, sample design	LAB (envi)	
	16th	lab 9b - calculating accuracy statistics, interpretation	LECTURE, LAPTOP	
week 12	21st	introduction to active remote sensing: radar, lidar, sonar	LECTURE	
	22nd	lab 10 - interpretation of radar imagery	LAB	
	23rd	THANKSGIVING		
week 13	28th	radar data sources; lab 10 - radar image interpretation (continued)	LECTURE, LAPTOP	
	29th	lab 11 - mapping wetlands with radar data	LAB (envi)	
	30th	lidar data and applications	LECTURE	
december **week 14**	5th	introduction to change detection - methods and applications	LECTURE	
	6th	lab 12 - monitoring land use change	LAB (envi)	

		7th	change detection methods (continued); application: agricultural expansion in turkey	LECTURE
december	**week 15**	12th	spatial information: pixel-based vs. object-oriented classification	LECTURE
		13th	no lab	
		14th	review for final exam	LECTURE
		15th	FINAL EXAM: 5 pm, humanities room 1111	