Geography 115B – Remote Sensing
Winter 2014

Lecture: M W 9:30-10:45 am, Ellison Hall 3621
Lab 1: M 5-7:50 pm, Phelps 2525
Lab 2: W 4-6:50 pm, Phelps 2525

Instructor: Bodo Bookhagen (bodo@eri.ucsb.edu)
Office: Ellison Hall 4816
Office hours: M 11 am – 12 pm

Class website: http://www.geog.ucsb.edu/~bodo/classes.php?pg=classes#rs115b
All labs and lectures (including their recordings) will be posted here.

Homework email address: geog115b@gmail.com

Teaching Assistant (TA):
Taylor Smith (ttsmith@geog.ucsb.edu)
Office: Ellison Hall 4812
Office Hours: Tuesday 12 - 1 pm or by appointment.

Mingquan Chen (mingquan@geog.ucsb.edu)
Office: Ellison Hall 3611
Office Hours: Wednesday 1 - 3 pm or by appointment.

Course text: We will continue with the text that you used in 115A, Remote Sensing of the Environment: An Earth Resource Perspective-2nd Edition. by J.R. Jensen, Prentice Hall 608 pp, 2006. There will also be occasional readings posted on the class website and linked from the lecture slides on the class Lectures web page.

There is also a recommended text which will help bridge the gap between concepts and practical methods and supplement the lecture and labs: Introductory Digital Image Processing: A Remote Sensing Perspective, 3rd Edition by J.R. Jensen, Prentice Hall 544 pp, 2004. Those who plan to continue with remote sensing and GIS in the future are recommended to get a copy.

Grading:

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<td>Labs</td>
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<td>Midterm</td>
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<td>Final</td>
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<td>Participation/Quizzes</td>
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Makeup exams will only be allowed in the case of a University-approved medical absence or a genuine family emergency. A missed quiz may be made up during office hours.
Syllabus (subject to minor changes)

Week 1 – Lab 1: The scales of remote sensing


Week 2 – Lab 2: Spectral Transformations


Week 3 – Lab 2: Spectral Transformations (continued)

Jan 20 (M) No class - Martin Luther King, Jr.’s Birthday


Week 4 – Lab 3: Active remote sensing: Using lidar for topography


Week 5 – Lab 4: Active remote sensing: Using radar

Feb 3 (M) MIDTERM EXAM


Week 6 – Lab 5: Supervised Classification and accuracy assessment


Week 7 – Lab 5: Supervised Classification and accuracy assessment (continued)

Feb 17 (M) No class – President’s Day


Week 8 – Lab 6: People and Pixels: Land use and land cover change in the Amazon


13. Feb 26 (W) High-spatial resolution Remote Sensing

Week 9 – Lab 7: Spectral mixing and unmixing of sediment in water


Week 10 – no Lab


17. Mar 12 (W) Final review

Mar 19 (W) – 8-11 am in classroom (Ellison Hall 3621) FINAL EXAM