FIELD STUDIES OF SOIL RESOURCES
Soil Science 105, ESPM 123 – Southern California

June 21-July 14, 2011
Department of Land, Air and Water Resources, UC Davis
and
Department of Environmental Science, Policy, and Management, UC Berkeley

INSTRUCTOR:
Ronald Amundson, earthy@berkeley.edu, 510-643-3788

Five quarter units, X semester units, offer through UC Summer Sessions.

GRADING:
Exam (30%), course summary written report (30%), Sierran transect exercise (10%), quizzes (30%). For students enrolled in 205, a special report in addition to the course summary report is required.

TEXT:

SCHEDULE:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Field Location. <strong>Overnight stops underlined</strong></th>
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<tbody>
<tr>
<td>June 21 Tuesday</td>
<td>9 a.m. – 5 p.m. Course introduction, logistics. Introduction to soil morphology, formation, classification, and land grading systems. <strong>Davis</strong></td>
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<td>22 Wednesday</td>
<td>8 – 5 Initial field excursion: Soils of Sacramento Valley near Davis. <strong>Davis</strong></td>
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<td>23 Thursday</td>
<td>Preparation for field excursions</td>
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<td>24 Friday</td>
<td>Examine soils, landforms and landuse in San Joaquin Valley (topography and time). Enroute Rio Vista, Lodi, Ione, Valley Spring, Oakdale, <strong>Don Pedro</strong></td>
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<tr>
<td>25 Saturday</td>
<td>Examine soil chronosequence of eastern San Joaquin Valley, enroute Snelling, UC Merced, Madera, <strong>Millerton Lake SRA</strong></td>
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<td>26 Sunday</td>
<td>Climosequence study on granitic bedrock (Sierran Transect). Enroute Auberry, Shaver Lake, Huntington</td>
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Lake, **Badger Flat**.

**27 Monday**  Climosequence study on granitic bedrock (Sierran Transect). Enroute Huntington Lake, Shaver Lake, Buck Meadow.

**28 Tuesday**  Meadow soils of Sierra and humans and soil in San Joaquin Valley (Underground Gardens). Enroute North Fork Kings River, Shaver Lake, Fresno, **Millerton Lake**.

**29 Wednesday**  Toposequence of eastern San Joaquin Valley. Enroute Fresno, Sanger, Raison City, San Joaquin, **West Side Field Station**.

**30 Thursday**  Biotic/parent material influences on soils in eastern San Joaquin Valley. Enroute Visalia, Porterville, Bakersfield, Tehacapi, Red Rock Canyon SRA.

**1 Friday**  Time and biota effects on soils in Mojave Desert. Enroute California City, Mojave, Lancaster, **Saddleback Butte SRA**.

**2 Saturday**  Climosequence in Mojave Desert. Enroute Devil’s Punchbowl, Palmdale, Gorman, Mt. Pinos.

**3 Sunday**  Geology, biota, and soils of Transverse Ranges. Enroute Carrizo Plain, Cuyama Valley, Ojai, McGrath Beach State Park, Ventura.

**4 Monday**  Day off. McGrath Beach State Park, Ventura.

**5 Tuesday**  Soils of coastal terraces and landforms. Enroute Ventura, UC Santa Barbara, **Sedgewick Ranch**.

**6 Wednesday**  Hillslope soils of southern Coast Range (topography and biota). **Sedgewick Ranch**.

**7 Thursday**  Soils on coastal dunes. Enroute Solvang, Lompoc, Santa Maria, Morro Bay, Paso Robles, San Miguel, Pinnacles National Monument.

**8 Friday**  Parent material and time in western San Joaquin Valley. Enroute Panoche, I-5, **Davis**.

**11 Monday**  Sierran Transect Reports due by 5 pm.
SUPPLIES, EQUIPMENT, AND COSTS

For classroom and field

1  8-1/2 x 11 3-ring binder
1  8-1/2 x 11 clipboard for field sheets
50  Sheets of 8-1/2 x 11 paper, ruled
10  Sheets of 8-1/2 x 11 graph paper
1  Small pocket notebook for field notes and data
1  Plastic ruler
1  2-m locking steel measuring tape (metric)
1  Road atlas of California (UCD bookstore, Borders, etc)
1  10x hand lens w/ neck landyard
     Pencils, erasers, pencil sharpener
1  Keys to Soil Taxonomy, 10th edition
1  Sturdy knife with sheath for soil excavation (various hardware suppliers)
1  Calculator
1  Camera (optional but recommended)
     Sharpies or other felt tip pens

Personal
Warm sleeping bag (w/ sheet for hot nights), ground cloth, small tent (optional but recommended), air mattress or foam pad, towels, toilet articles, small first aid kit, sunscreen (strong block recommended), insect repellent, clothes for field (including hat, field boots, warm jacket/outerwear, vest, rain gear), change for Laundromats, water bottle. SANDALS AND OPEN-TOED SHOES ARE NOT PERMITTED FOR FIELD WORK. LUGGAGE LIMITED TO: 1 suitcase or duffel bag, 1 day pack, sleeping bag, pad, tent, camera case.

Course Costs:

See Summer Session Web Site

This fee covers transportation, campground/lodging, and community meals while in the field.

Books, personal supplies, and other meals while in the field are not included.