

University Distance Learning Opportunities Soils & GIS

What to get

The Soil Science Society of America has Soil Science Competency Areas and Performance Objectives that list what you need to know to prepare for exams. Using the objectives as a checklist would be a good way to assess your strengths and weaknesses in soil science. The link provided here will take you to those objectives.

http://www.soils.org/csse/perf_obj.pdf

Where to get it

NRCS and the Soil Survey Division provide the **Soil Science Institute I - Fundamentals and Applications (000110)**. This is done through a partnership with selected universities and is conducted by the university and is approximately three weeks in length. A wide range of soil related course material is usually covered, including soil genesis, soil physics, soil chemistry, mineralogy, soil microbiology, and others.

NRCS and the Soil Survey Division provides the **Soil Geomorphology Institute (000142)** This is done through a partnership with selected universities and is conducted by National Soil Survey Center staff with assistance from the host university. It is specific to the area of soil geomorphology. Several of the universities hosting sessions will also be offering 3 credits of 400-500 level credits based completion of additional work.

The course descriptions for both institutes can be found in [Aglearn](#) and on the [NEDC catalog website](#).

NRCS periodically offers competitive opportunities for graduate study. All employees will receive notice if and when this happens. Normally, areas of study are selected to fill voids in the agency. It will require you to get accepted into a grad program. You may need to be mobile after completion of the studies.

You always have the opportunity to seek advanced degrees on your own. It is suggested that you work with your supervisor, State Soil Scientist, and HR people. Opportunities may occur to help you in this effort. However, this will probably only work if you are located near one of the land grant universities offering the course of study you wish to pursue.

Currently, there is one university offering an MS degree program related to soils via distance learning, and that is the University of Florida. You can locate their information using the link for UFL provided below.

Several universities offer undergraduate level soils courses. However, most of these are low level courses which you will have already completed. North Carolina State University does have a wider offering, including one for Wetland Soils. A few offer graduate degree or certificate programs in related fields. Check out the links in the following table. These are from our Land Grant University partners in the soil survey program. For GIS courses and certificate or degree programs in particular, you can find other options (Google – GIS distance learning). These were located via internet search. Others may exist that were not found. New offering may be posted in the interim before this information is next updated.

Courses/certificates/programs that may interest an employee whom already meets the soil science requirements for a soil scientist in NRCS are in ***bold italics***.

In all cases, the employee should expect to pay all related expenses out of pocket unless they have reached a prior arrangement with NRCS or other means.

University Distance Learning Links

(Search last done 4/23/2007)

Post Graduate Level Courses, Degrees or Certificates

North Carolina State University	<p><i>Masters in Soil Science-</i> http://distance.ncsu.edu/programs/mssc.html</p>
Penn State University	<p><i>Post-baccalaureate Certificate in Geographic Information Systems-</i> http://www.worldcampus.psu.edu/GISCertificate.shtml</p> <p><i>On-line Masters in GIS Program</i> http://www.geog.psu.edu/news/mgis_new.html</p>
University of California-Davis	<p><i>Field Study of Soils in California Ecosystems (summer field course)-</i> http://lawr.ucdavis.edu/classes/ssc105/index.htm</p>
University of Florida	<p>Distance Education webpage- http://www.cals.ufl.edu/distance/</p> <p><i>Masters in Environmental Science-</i> http://www.distancelearning.ufl.edu/program.aspx?p=18</p>
University of Maryland	<p><i>Field Soil Morphology (summer field course)-</i> http://www.sawgal.umd.edu/mapss/flyer2007-2.pdf</p>
Virginia Tech	<p><i>Master's of Agricultural and Life Sciences-</i> http://www.online.cals.vt.edu/masters/</p>
Wilkes University (PA)	<p><i>Summer field courses in soil morphology and hydric soils</i> http://www.water-research.net/course/soilsciencetraining.htm</p>

University Distance Learning Links

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Undergraduate Level Courses

Iowa State University	Fundamentals of Soil Science- http://www.extension.iastate.edu/swirrc/Courses/AgronomySpr06.html
North Carolina State University	Course Catalog- <ul style="list-style-type: none"> • Principles of Soil Science • Soil Fertility and Fertilizers • Wetland Soils • Soil Morphology, Genesis and Classification http://distance.ncsu.edu/courses/fall07/SSC.html
Oregon State University	CSS 205. SOILS: SUSTAINABLE ECOSYSTEMS (4)- http://ecampus.oregonstate.edu/soc/ecatalog/ECourseDetail.aspx?subjectcode=CSS&coursenum=205&termcode=all
Penn State University	Online Catalog Search = Soils 101 - Introduction to Soils http://www.worldcampus.psu.edu/
Texas A&M University	Current Offerings- http://dist-ed.tamu.edu/current.asp
Texas Tech University	Distance learning website- http://www.depts.ttu.edu/distancelearning/
University of California-Davis	<i>Field Study of Soils in California Ecosystems (summer field course)-</i> http://lawr.ucdavis.edu/classes/ssc105/index.htm
University of Florida	Distance Education webpage- http://www.cals.ufl.edu/distance/
University of Georgia	Topics in Crop and Soil Sciences: Principles of Soils- http://www.georgiacenter.uga.edu/idl/courses/offerings/soi

	l_science/CRSS4220.phtml
University of Maryland	Field Soil Morphology (summer field course)- http://www.sawgal.umd.edu/mapss/flyer2007-2.pdf
Wilkes University (PA)	Summer field courses in soil morphology and hydric soils http://www.water-research.net/course/soilsciencetraining.htm