

Preparing professional pedologists through field practicums and career experience

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Abstract

Soil science programs at US colleges and universities, especially land grant institutions and other large state schools, have provided many of the trained pedologists working for local, state, and federal agencies, particularly the soil survey program of the USDA-Natural Resources Conservation Service (NRCS). It has been projected that almost half of the approximate 500 field soil scientists employed by the NRCS will be eligible for retirement over a five year period. While actual retirements will be less, it is imperative that a new generation of field soil scientist be trained in proper field and laboratory methods, as well as in advanced methods of geospatial analysis, to ensure that soil survey programs are able to provide valuable products that are adaptable to changing user needs and compatible with other spatial resource data. There are several ways that colleges and universities can engage with students and employers to develop the knowledge and skills that will enable graduates to become effective employees that are capable of working productively with other scientists, as well as with those who use, manage, or otherwise make decisions that incorporate the information collected, analyzed, and distributed by soil scientists. Two important activities available within college and university soil science programs that enhance student training are field practicums and career experience. This presentation will discuss the key courses that are or should be part of a comprehensive training in pedology, emphasizing the important field, laboratory, and computer skills that should be taught. We will also discuss US government programs that enable students to gain work experience that is complementary to the student's academic program and career goals. These programs include the Student Career Experience Program (SCEP) and the Student Temporary Employment Program (STEP).