SOIL SCIENCE

Degree Requirements

Master of Science (M.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (https://gradschool.psu.edu/graduate-education-policies/)

A minimum of 30 credits at the 400, 500, 600, or 800 level is required, with least 18 credits at the 500 and 600 level, combined. The department requires 12 credits of 400- or 500-level formal courses in Soil Science of which 6 must be 500-level, and 6 credits of 400- or 500-level courses in a minor or general studies area. A total of 6 credits, with at least 3 credits at the 500 level, must be taken in statistics. Participation in at least one colloquium course each semester is expected and students must complete at least 1 credit of colloquium (SOILS 590). In addition, M.S. students are required to complete 1 credit of Supervised Experience in College Teaching (SOILS 602); however, this 1 credit cannot be counted towards the degree requirements. Specific courses and requirements will be determined by the faculty adviser and advisory committee.

A thesis based on field or laboratory research is required for the M.S. degree and at least 6 credits in thesis research (SOILS 600 or SOILS 610) must be taken in conjunction with completing the thesis. The thesis must be accepted by the advisers and/or committee members, the head of the graduate program, and the Graduate School, and the student must pass a thesis defense.

Doctor of Philosophy (Ph.D.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (https://gradschool.psu.edu/graduate-education-policies/)

While a minimum number of courses for the degree is not specified, the Ph.D. committee has the responsibility of specifying courses and credits essential for the education and development of the student. Students are expected to be educated in depth in a specific subfield of Soil Science and to have a perspective of the general field. Normally, students will have 50 to 60 credits in formal course work beyond the B.S. degree. A minimum of 12 credits of 500-level courses beyond the baccalaureate degree are required. Additional requirements include a minimum of 15 credits of 400- or 500-level courses in a minor or general studies area, 6 credits of statistical methods beyond the baccalaureate degree, of which a minimum of 3 will be at the 500 level, and 12 credits of SOILS 600 or SOILS 610.

Doctoral students are required to participate regularly in a departmental colloquium and to register for at least 1 credit of Colloquium (SOILS 590) during the Ph.D. program. Ph.D. students are required to complete two separate semesters of Supervised Experience in College Teaching (SOILS 602) for 2 credits total; however, these 2 credits cannot be counted towards the degree requirements. Doctoral students must pass a qualifying examination, a comprehensive written and oral examination, and a final oral examination (the dissertation defense). To earn the Ph.D. degree, doctoral students must also write a dissertation that is accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.