SOIL SCIENCE (SOIL)

SOIL 7220 Principles of Scientific Research and Communication 3 cr
Principles of scientific research; management skills; writing skills; oral and poster presentation; preparation of research proposal and thesis (pass/fail). These topics will focus on aspects of soil science and will give students experience in writing and presenting scientific material to increase their professionalism as soil scientists.
PR/CR: A minimum grade of C is required unless otherwise indicated.
Prerequisite: Consent of instructor.

SOIL 7250 Topics in Soil Science 3 cr
Several courses in soil science are sectioned into modules. Modules of one credit hour on special topics are also available. Students may select three modules from the various courses or from special topics for SOIL 7250.

SOIL 7310 Soil Health for Sustainable Ecosystems 3 cr
The investigation of water dynamics including water retention and transport in soils, plant regulation of water, evapotranspiration, and the limitations of water for ecosystem function in current and future Prairie climates. Measurement and modeling techniques are developed. Students will critique the literature and explore assigned topics. Permission of instructor.

SOIL 7320 Advances in Landscape Processes 3 cr
An examination of methods and technologies to characterize landscapes and understand processes across a range of spatial scales. Students will investigate landscape dynamics through the development and application of digital techniques and mathematical models. Students will critique the literature and explore assigned topics. Permission of instructor.

SOIL 7330 Nutrients in Agroecosystems 3 cr
Advanced study of nutrients in soils and plants including ecosystem behaviour and crop requirements, methods and approaches for studying nutrient dynamics, and applications and emerging issues. Students will critique the literature and investigate assigned topics. Permission of instructor.

SOIL 7340 Water in the Soil-Plant-Atmosphere Continuum 3 cr
The investigation of water dynamics including water retention and transport in soils, plant regulation of water, evapotranspiration, and the limitations of water for ecosystem function in current and future Prairie climates. Measurement and modeling techniques are developed. Students will critique the literature and explore assigned topics. Permission of instructor.