

Simon Fraser University
 Department of Geography
 Spring Semester 2011

GEOGRAPHY 417W
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GEOG 417W – ADVANCED SOIL SCIENCE
Course Outline

This course focuses on the ecology and management of forest soils. Topics covered include: the forest floor, decomposition, roots, organisms, succession, site productivity, and soil classification. Soil degradation, soil rehabilitation and the influence of forest practices (eg. harvesting) and natural disturbance (eg. fire) on soils is emphasised. The impact of climate change on forest soils will be discussed. The term project allows the student to explore a particular area of interest related to forest soils.

Prerequisites: GEOG 317 (Soil Science) or permission of the instructor (students who took GEOG 318 can talk to the instructor to discuss obtaining permission).

Course Organization: One two-hour lecture and one two-hour laboratory session each week. There will be no labs held in the first week of classes. There will be two off-campus field trips. One trip will be outdoors, will be held on the day the lab is scheduled (Friday) and will run from about 10 am to 4 pm. The second trip will be to a soil science workshop at UBC which will be on a Saturday in March. Exact dates will be announced early in the spring semester. Other field work will be carried out on Burnaby Mountain during scheduled lab time.

Recommended Text: R.F. Fisher and D. Binkley. 2000. Ecology and management of forest soils. Third edition. Wiley, New York.

Mandatory Additional Course Fee: \$15

Evaluation:

Assignments	30
Mid-term	15
Term project - paper	25
Term project - presentation	10
Final examination	15
Participation	5

The final examination will be held in the formally-scheduled university examination period.