

001-2-2203 Adsorption and Reactivity of Chemicals in Soils 3 credits

**Lecturer:** Gilboa Arye

An understanding of the transport and reactivity of chemical in soils is essential for sustainable crop production - which is also related to some environmental concerns. The course will provide the student with theoretical and quantitative tools to address the processes involved.

The following subjects will be addressed:

Introduction to soil sciences – the solid phase

Introduction to soil sciences – the liquid phase

Colloid and surface phenomena in soils

Ion exchange and selectivity

Salinity and sodicity

Soil organic matter

Adsorption – kinetics and equilibrium

Reactive transport in soils

**Course requirements:**

Final Term Paper

**Recommended Reading:**

To be provided prior to and during the course.