

Module Name	Soil Science (Practicum)
Code, if applicable	GEL 0205
Semester(s) in which the module	Third (3 rd) Semester
Person responsible for the module	M. Anggri Setiawan, Dr. M.Si
Lecturer	M. Anggri Setiawan, Dr. M.Si Guruh Samodra, Dr. Eng., M.Sc
Language	Bahasa Indonesia
Relation to curriculum	Elective
Type of teaching,	STAR (<i>Student Teacher Aesthetic Role-Sharing</i>) is an optimal combination between SCL (<i>Student Centered Learning</i>) and TCL (<i>Teacher Centered Learning</i>). Lecturer : 1400 minutes
Workload	Lecturer : 1400 minutes including homework and discussion = 14 meetings x 100 minutes each Mid Semester Examination: 100 minutes Final Semester Examination: 120 minutes Total workload = 1620 minutes
Credit points	1
Requirements according to the examination regulations	Must attend lecture for more than 70%
Module objectives/intended learning outcomes	<p>1. Students are able to explain :</p> <ul style="list-style-type: none"> ■ Soil Classification ■ Soil Morphology ■ Soil Identification ■ Soil Characteristic
Content	<ol style="list-style-type: none"> 1. Soil description on filed 2. Soil preparation and soil water content 3. Soil texture and NPD 4. Atterberg Identification 5. Bulk Density, Specific density, and porosity 6. Soil permeability 7. PH and salinity 8. C-Organic 9. Cation exchange 10. P(PO₄) content
Study and examination requirements and forms of examination	Pretest (10%), Practicum classes (20%), report (30%) , final examination/Responsion (40%)
Media employed	<ul style="list-style-type: none"> - ELISA website - Internet - Computers - Interactive video - LCD projector
Reading list	<p>Arsyad, S. 2000. Pengawetan Tanah dan Air. Departemen Ilmu-Ilmu Tanah. Fakultas Pertanian IPB</p> <p>Asdak, C, 1995, Hidrologi dan Pengelolaan DAS, Gadjah Mada University Press, Yogyakarta.</p> <p>Dariah, A., Umi H., Torry B. Teknologi Konservasi Tanah Mekanik.</p>

- Departemen Kehutanan, Standar Teknik Konservasi Tanah. 1998. Jakarta: Direktorat Jenderal Reboisasi dan Rehabilitasi Lahan
- FAO, 1977, Guidelines For Soil Profil Description, Soil Survey and Fertilizing Branch, Land and Water Development Division, Food and Agriculture Organisation of The United Nation
- FAO, 1998, World Reference Base for Soil Resources. International Soil Reference and Information Centre (ISTRIC). FAO: Roma
- Gerrard, A. J., 1981, Soil and Landforms: An Integration of Geomorphology and Pedology. London: george Allen & Unwin
- Hardjowigeno, S., 1993. Klasifikasi Tanah dan Pedogenesis.. Jakarta: Akademika Pressindo
- Hudson, N.W., 1993, Field Measurement of Soil Erosion and Runoff.FAO Soil Buletin : 68. Roma
- IUSS Working Group WRB. 2007. World Reference Base for Soil Resources 2006, first update. World Soil Resources Reports No. 103. FAO, Roma
- Morgan., R. P. C., 1995, Soil and Conservation Second edition. UK: Longman
- Morgan, R.C.P. dan J.H. Duzant. 2007. Modified MMF (Morgan-Morgan-Finey) Model for Evaluating Effects of Crops and Vegetation Cover on Soil Erosion, Earth Surface Processes and Landforms 32, 90-106. John Wiley and Sons, UK
- Sartohadi. J. 2001. Geomorphological Processes Analysis for Soil Mapping using Remote Sensing and Geographic Information System Techniques: A Case Study in the Western Gunungkidul Range Yogyakarta, Indonesia. Thesis. Leopold-Franzens Universität Innsbruck, Austria