

Module Name	Soil Survey, Erosion, and Conservation Planning
Code, if applicable	GEL 2502
Semester(s) in which the module	Fourth (4 th) Semester
Person responsible for the module	Muhammad Anggri Setiawan, Dr., M.Si.
Lecturer	Muhammad Anggri Setiawan, Dr., M.Si. Guruh Samodra, Dr., 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>).
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	2
Requirements according to the examination regulations	Must attend lecture for more than 70%
Recommended prerequisites	Soil Science Fundamental of Geomorphology
Module objectives/intended learning outcomes	Students are able to : 1. Understand the procedure of soil mapping and soil map data analysis. 2. Evaluate the level of erosion risk in a region. 3. Give a recommendation of effective and efficient soil conservation in erosion cases. 4. Implement the geographical approach in soil erosion studies.
Content	1. Soil mapping approach and soil erosion conservation 2. Soil classification system 3. Soil mapping 4. Sampling procedure and quality control soil analysis 5. Soil management 6. The importance of erosion study 7. Erosion type and characteristics 8. Causative and driving factors of soil erosion 9. Erosion measurement and modelling 10. Type of soil conservation 11. Capita Selektta
Study and examination requirements and forms of examination	Quiz 12 %, Group Assignment 13%, Individual Assignment 20%, Mid-term Exam 25%, and Final Exam 30%
Media employed	- ELISA website - Internet - Computers - Interactive video - LCD projector

Reading list	<p>Arsyad, S., 2000. <i>Konservasi Tanah dan Air</i>. Penerbit IPB, Bogor.</p> <p>Canadian Society of Soil Science. 2008. <i>Soil Sampling and Methods of analysis 2nd edition</i>. Carter, M.R and Gregorich, E.G (eds). Taylor & Francis Group, LLC.</p> <p>Foth, H.D., 1990. <i>Fundamental of Soil Science</i>, 8th edition. John Wiley & Sons.</p> <p>FAO, 2007. <i>Land Evaluation: Toward A Revised Framework</i>. Land and Water Discussion Paper No. 6. FAO-Rome</p> <p>FAO. 2006. <i>Guidelines for Soil Description 4th edition</i>. FAO, Rome</p> <p>IUSS Working Group WRB. 2006. <i>World Reference Base for Soil Resources 2006 2nd edition</i>. World Soil Resources Reports No. 103. FAO, Rome</p> <p>Lal, R., and M.K. Shukla, 2004. <i>Principal of Soil Physics</i>. Marcel Dekker, Inc. USA.</p> <p>Morgan, R. P. C. (2005). <i>Soil erosion and conservation</i> (3rd ed.). Oxford, UK: Blackwell Publishing</p> <p>Sartohadi, J., 2001. <i>Dissertation: Geomorphological Analysis for Soil Mapping Unit Identification Based on Remote Sensing and Geographic Information Systems Techniques</i>. Leopold Franzens University of Innsbruck-Austria.</p> <p>Sartohadi,, J. Jamulya, Dewi, N.I.S., Suratman. 2013. <i>Pengantar Geografi Tanah</i>. Pustaka Pelajar, Yogyakarta</p> <p>Setiawan, M. A. (2012). <i>Integrated Soil Erosion Risk Management in the upper part of Serayu Watershed, Wonosobo District, Central Java Province, Indonesia. Dissertation</i>. Innsbruck: University of Innsbruck</p> <p>Soil Survey Staff, 2006. <i>Keys to Soil Taxonomy: 10th edition</i>. US Department of Agriculture-Natural Resources Conservation Services. Washington-USA</p> <p>Stocking M and Murnaghan N. (2000) <i>Land Degradation – Guidelines for Field Assessment</i>. Norwich: Overseas Development Group, University of East Anglia</p> <p>Tan, K.H. 2008. <i>Soils in the Humid Tropics and Monsoon Region of Indonesia</i>. CRC Press, Boca Raton-London-New York</p> <p>Troeh, F. R., Hobbs, J. A., & Donahue, R. L. (2004). <i>Soil and Water Conservation for Productivity and Environmental protection</i> (4th ed.). New Jersey: Prentice Hall.</p> <p>https://www.soilerosion.net/</p>
--------------	--

