Example form for Module Handbook

A **Module Handbook or collection of module descriptions that is also available for students to consult** should contain the following information about the individual modules:

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| Module designation | *Genesis dan Klasifikasi Tanah* |
| Module level, if applicable | *Bachelor* |
| Code, if applicable | *PNT2108* |
| Subtitle, if applicable |  |
| Courses, if applicable | *1. Introduction*  *2. The process of weathering*  *3. Transformation and translocation*  *4. The role of humans in soil genesis*  *5. Secondary mineral formation and stability in view of time and environmental changes*  *6. Colloidal soil*  *7. Soil acidification*  *8. Formation of the diagnostic horizon*  *9. Nomenclature of the diagnostic horizon and its specifications*  *10. Genesis and specific tanha classifications*  *11. Practical implications of genesis and soil classification (group discussion)* |
| Semester(s) in which the module is taught | *uneven* |
| Person responsible for the module | *Dr. Makruf Nurudin,S.P., M.P.* |
| Lecturer | *Dr. Makruf Nurudin,S.P., M.P.* |
| Language | *Bahasa/Indonesian language* |
| Relation to curriculum | *Compulsory* |
| Type of teaching, contact hours | *Lecture, practical, presentation* |
| Workload | *3,02/1,51 ects* |
| Credit points | *2/1* |
| Requirements according to the examination regulations | *Presence must be 70% of all meetings*  *Has to accomplished all the assignments* |
| Recommended prerequisites | *-* |
| Module objectives/intended learning outcomes | *Mahasiswa diharapkan dapat menjelaskan proses genesis tanah, proses pelapukan tanah secara fisik, kimia dan biologi, proses translokasi dan transformasi dalam tanah dalam kondisi aerob dan anaerob.*  *Menjelaskan peran manusia dalam proses pembentukan tanah, koloidal tanah, proses pemasaman tanah.*  *Menjelaskan proses pembentukan , perkembangan, dan nomenklatur Mahasiswa akan dapat menjelaskan konsep dasar dann aplikasi proses pembentukan tanah dna klasifikasi tanah yang meliputi: proses pelapukan tanah, translokasi dan transformasi dalam tanah, peran manusia dalam pembentukan tanah, pembentukan mineral sekunder dan stabilitasinya, koloidal tanah, morfolgi dan pembentukan horizon diagnostic, nomenklatur horizon diagnostic dan spesifikasinya, sistem klasifikasi tana genesis dan klasifikasi tanah khusus. horizon diagnostic*  *Menjelaskan sistem klasifikasi tanah yang diterapkan di Indonesia menurut PPT, USDA dan FAO*  *Menjelaskan proses pembentukan tanah spesifik dan implikasi praktis genesis dan klasifiasi tanah.* |

1. When calculating contact time, each contact hour is counted as a full hour because the organisation of the schedule, moving from room to room, and individual questions to lecturers after the class, all mean that about 60 minutes should be counted.
2. Cf. European Commission: Proposal for a Recommendation of the European Parliament and the European Council on the establishment of the European Qualifications Framework for lifelong learning, COM(2006) 479 final, 2006/0163 (COD), Brussels 05/09(2006.

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| Content | 1. *Pendahuluan* 2. *Proses pelapukan* 3. *Transformasi dan translokasi* 4. *Peran manusia dalam genesis tanah* 5. *Pembentukan mineral sekunder dan kestabilannya mengingat waktu dan perubahan lingkungan* 6. *Koloidal tanah* 7. *Pemasaman tanah* 8. *Pembentukan horizon diagnostic* 9. *Nomenklatur horizon diagnostik dan spesifikasinya* 10. *Genesis dan klasifikasi tanha spesifik* 11. *Implikasi praktis genesis dan klasifikasi tanah (Diskusi kelompok)* |
| Study and examination  requirements and forms of examination | *uts/uas* |
| Media employed | *Menggunakan media OHP, papan tulis, notebook-LCD* |
| Reading list | 1. *Buol, S.W., Southard, R.J., Graham, R.C., and McDaniel, P.A. 2003. Soil Genesis and Classification. Fifth edition. Iowa State Press.* 2. *Isbell, R.F. (Raymond Frederick). 2001. The Australian soil classification. CSIRO PUBLISHING PO Box 1139 (150 Oxford Street) Collingwood, VIC 3066 Australia* 3. *Foth, H.D. 1990. Fundamentals of soil science. 8th ed. John Wiley S. Son.* 4. *Kononova, M. 1966. Soil Organic Matter Its Nature, Its Role in Soil Formation and in Soil Fertility* 5. *Miller, R.W. & RL. Donahue. 1990. Soils. An Introduction to Soils and Plant Growth. Prentice-Hall New Jersey.* 6. *USDA. 2010. Keys to Soil Taxonomy. Eleventh edition.* 7. *USDA. 2009. Soil Taxonomy - A Basic System of Soil Classification for Making and Intrepeting Soil Surveys. Second Edition.* 8. *Wilding, L. P., Smeck, N.E., and Hall, G.F. 1984. Pedogenesis and Soil Taxonomy. Elsevier Science Publisher. New York.* 9. *Eswaran, H., Rice, T., Ahrens, R., and Steward, B.A. 2003. Soil Classification - A Global Desk Reference. CRC Press. Washington.* 10. *Van Breemen N., and Buurman, P. 2003. Soil Formation. Second Edition. Kluwer Academic Publisher. New York.* 11. *Certini, G. and Scalenghe, R. 2006. Soils - Basic Concepts and Future Challenges. Cambridge University Press. UK.* 12. *Scaetzel, R. and Anderson, S. 2005. Soils Genesis and Geomorphology. Cambridge University Press. UK.* 13. *Shoji, S. Nanzyo, M., and Dahlgren, R. 1993. Volcanic Ash Soils - Genesis, Properties, and Utilization. Elsevier* |