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 | Pengelolaan dan Pengembangan Sumber Daya Lahan |
| Module level, if applicable | Undergraduate program |
| Code, if applicable | PNT 4120 |
| Subtitle, if applicable |  |
| Courses, if applicable | 1. Soil Management Methods 2. Role of Organic Ingredients in Soil Management 3. Role of Soil and Water Conservation in Soil Management 4. Management in Dry 5. Lands Soil Management on Dry Land 6. Lessons learn Dryland Management in Yogyakarta Special Region 7. Soil Management in Wetlands non Swamp 8. Soil Management in Swamp Wetlands 9. Soil Management in Wet Swamps |
| Semester(s) in which the module is taught | Even |
| Person responsible for the module | Dr. Cahyo Wulandari, S.P., M.P. |
| Lecturer | Dr. Cahyo Wulandari, S.P., M.P.  Dr. Ir. Sri Nuryani H.U., M.P., M.Sc. |
| Language | Bahasa/Indonesian language |
| Relation to curriculum | Compulsory |
| Type of teaching, contact hours | lecture, lesson, practical, discussion, and seminar |
| Workload | 1 SKS = 170 minutes x 14 meetings = 39,6 hours  Total Workland 237,6 |
| Credit points | 6/0 sks (9,06 ects) |
| Requirements according to the examination regulations | Presence must be 70 % of all meetings  Has to accomplished all the assignment |
| Recommended prerequisites | - |
| Module objectives/intended learning outcomes | 1. Students can understand that to manage land requires comprehensive knowledge from various fields of soil science studies. 2. Students be able to describe the distribution, potentials and constraints as well as opportunities and development of land management in dry land and wetlands. 3. Students can decide to choose soil management methods that suit the characteristics of the land, both dry and wetlands |

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. Soil Management Methods 2. Role of Organic Ingredients in Soil Management 3. Role of Soil and Water Conservation in Soil Management 4. Management in Dry 5. Lands Soil Management on Dry Land 6. Lessons learn Dryland Management in Yogyakarta Special Region 7. Soil Management in Wetlands non Swamp 8. Soil Management in Swamp Wetlands 9. Soil Management in Wet Swamps |
| Study and examination  requirements and forms of examination | *Quiz, UTS, UAS, discussion* |
| Media employed | Text, Presentation, Visual & Audio Web. |
| Reading list | 1. AARD AND LAWOO, 1992. Acid Sulphate Soils in Humid Tropics : Water Management and Soil Fertility Final Report Projects. AARD-LAWOO. Indonesia-The Netherlands.  2. Adimihardja, A dan Mappaona, 2005. Teknologi Pengelolaan Lahan Kering Menuju Pertanian Produktif dan Ramah Lingkungan. Puslitbangtanak, Bogor.  3. Agus Fahmuddin, Abdurachman Adimiharja, Sarwono Hardjowigeno, Achmad Mudzakir Fagi, dan Wiwik Hartatik (Edt). 2004. Tanah Sawah dan Teknologi Pengelolaannya.Pusat Penelitian Tanah dan Agroklimat. Badan Pebelitian dan Pengembangan Pertanian. Departemen Pertanian.  4. Anonim. 2010. Laporan Akhir Pelatihan dan Uji Coba Tanam System of Rice Intensification (SRI). Jurusan Teknik Pertanian, Fakultas Teknologi Pertanian UGM dan Departemen Pekerjaan Umum, Direktorat Jenderal Sumberdaya Air, Satuan Kerja Balai Besar Wilayah Sungai Brantas, Kegiatan Irigasi.  5. Armand Van Wambeke, 1991. Soil of the Tropics, Properties and Appraisal. McGraw-Hill, Inc.  6. Arsyad, Sitanala, 1989. Konservasi Tanah dan Air. Penerbit IPB. Bogor.  7. Bhagat, R.M., 2003. Management of Soil Physical Properties of Lowland Puddled Rice Soil For Sustainable Food Production. India.  8. Buol, S.W., Southard, R.J., Graham, R.C., Mc. Daniel, P.A., 2003. Soil Genesis and Classification. Iowa State Press.  9. Cook, R.L. and Ellis, B.G., 1987. Soil Management, A World View of Conservation and Production.  10. Dent, D.L. dan Raiswell, R.W, 1982. Quantitative Models to Predict the Rate and Severity of Acid Sulphate Development : A Case Study in the Gambia. Dalam : H. Dort dan N.V. Breemen (edt). Proc. Of Bangkok Symposium on Acid Sulphate Soils. ILRI Publ. 31. Wageningen. Pp. 73 – 98  11. FAO, 2005. The Importance of Soil Organic Matter. Key to drought – resistant soil and sustainaed food and production.  12. FAO, 2000. Manual on Integrate Soil Management and Conservation Practices.  13. FAO. Manual on Methods and Materials in Soil Conservation.  14. ICRAF. Lecture Notes : Agroforestry. ICRAF Southeast Asia Teaching Materials.  15. Kertonegoro, B. D., Dja`far Shiddieq, dan Abdul Syukur (Edt.). 2012.Himpunan Abstrak Hasil Penelitian Pengelolaan Lahan Pasir Pantai dan Lahan Pasiran untuk Budidaya Pertanian. Fakultas Pertanian Universitas Yogyakarta.  16. Kurnia, U., A. Rachman dan Ai Dariah. 2004. Teknologi Konservasi Tanah pada Lahan Kering Berlereng. Puslitbangtanak, Bogor.  17. Muhammad Noor, 2004. Upaya Perbaikan Produktivitas Tanah Sulfat Masam (Disertasi). Universitas Gadjah Mada. Yogyakarta.  18. Muhammad Noor. 2004. Lahan Rawa, Sifat dan Pengelolaan Tanah Bermasalah Sulfat Masam. PT. Raja Grafindo Persada. Jakarta.  19. Notohadiprawiro, T., Rachman Sutanto, Azwar Maas, dan Sedarnawati Yasni.1999.Kebutuhan Riset, Inventarisasi dan Koordinasi Pengelolaan Sumber Daya Tanah di Indonesia. Kantor Menteri Negara Riset dan Teknologi dan Dewan Riset Nasional.  20. Proceedings, 1991. Tropical Peat in the International Symposium on Tropical Peatland, Kucing, Serawak, Malaysia.  21. Rayers, 19985. Lecture Note of Acid Sulphate. In Soil Chemistry. UPLB. Philiphines.  22. Rieley, J.O. and S.E. Page. Biodiversity and Sustainability. Journal Tropical Peatlands. Samara House, Tresaith, Cardigan. SA 43 276, UK.  23. Sanchez, P.A., 1976. Properties and Management of Soils in the Tropics.  24. Stevenson, F.T. 1982. Humus Chemistry. John Wiley and Sons, Newyork..  25. Sutanto, Rachman. 2006. Penerapan Pertanian Organik, Pemasyarakatan dan Pengembangannya. Penerbit Kanisius. Yogyakarta.  26. Tan, Kim. H., 1998. Andosol, Kapita Selekta. Program Studi Ilmu Tanah, Program Pasca Sarjana. Universitas Sumatra Utara. Medan  27. Tim Pusat Penelitian Tanah dan Agroklimat. 2000. Sumber Daya Lahan Indonesia dan Pengelolaannya. Pusat Penelitian Tanah dan Agroklimat. Badan Pebelitian dan Pengembangan Pertanian. Departemen Pertanian.  28. Utomo, Wani H., 1994. Erosi dan Konservasi Tanah. Penerbit IKIP Malang.  29. Van Ranst, E., 1991. Regional Pedologi : Soils of the Tropics and the Subtropics, Geography, Classification, Properties and Management. |