



Module Description/Course Syllabi

Study Programme : Magister of Soil
Science Faculty of Agriculture

Universitas Andalas

1. Course number and name

MIT 81101 Soil Genesis and Classification

2. Credits and contact hours/Number of ECTS credits allocated

3 sks (2-1)

3. Instructors and course coordinator

1. Prof. Dr. Ir. Dian Fiantis, MSc; 2. Prof. Dr. Ir. Azwar Rasyidin, M Agr Sc

4. Text book, title, outhor, and year

1. Jenny, H. 1994. Factors of Soil Formation, A system of quantitative Pedology. Dover Publications, Inc. New York. 191 p.
2. Buol, S.W., Southard, R.J., Graham, R.C., and McDaniel, P.A. 2003. Soil Genesis and Classification. Fifth edition. Iowa State Press.
3. Eswaran, H., Rice, T., Ahrens, R., and Steward, B.A. 2003. Soil Classification - A Global Desk Reference. CRC Press. Washington.
4. Van Breemen N., and Buurman, P. 2003. Soil Formation. Second Edition. Kluwer Academic Publisher. York.
5. USDA. 2009. Soil Taxonomy - A Basic System of Soil Classification for Making and Intrepeting Soil Surveys. Second Edition.
6. Certini, G. and Scalenghe, R. 2006. Soils - Basic Concepts and Future Challenges. Cambridge University Press. UK.
7. Shoji, S. Nanzyo, M., and Dahlgren, R. 1993. Volcanic Ash Soils -

Genesis, Properties, and Utilization. Elsevier.

5. Specific course information

A. Brief description of the content of the course (catalog description)

The Lecture material on Genesis and Soil Classification course discusses the process of soil formation from various parent materials, under different climates, slopes/topography, activities of organisms, and time.

B. Semester when the course unit is delivered

Even Semester

C. Mode of delivery (face-to-face, distance learning)

Face to face

6. Intended Learning Outcomes (CPL)

ILO 1 : An ability to analyze and interpret nature and characteristics of many soils in determining the potency and the threat of the land and environment resources

PI 3 : An ability to interpret soil data

ILO 2 : An ability to classify soil, to evaluate land capability and suitability, as well as to determine the alternative utilization for sustainable agriculture and environment

PI 1 : An ability to classify soil properties

7. Course Learning Outcomes (CPMK) ex. The student will be able to explain the significance of current research about a particular topic.

A. Students will be able to interpret data of many soils

B. Students will be able to use soil data to classify soils based on some methods of soil classification

8. Learning and teaching methods

Cooperative Learning and Case Base Method

9. Language of instruction

Indonesia and English (English Class)

10. Assessment methods and criteria

Summative Assessment :

1. Tasks : 5%
2. Quiz : 5 %
3. Mid Semester : 25%
4. Final Semester : 25%
5. Praktikum :30%
6. Attendance : 5%

Formative Assessment:

1. Thumb up and thumb down
2. Minutes paper