|  |  |
| --- | --- |
| Module designation | *Soil Chemistry* |
| Module level, if applicable | *Bachelor* |
| Code, if applicable | *PNT20192107* |
| Subtitle, if applicable |  |
| Courses, if applicable | 1. *The basic principles of soil chemistry* 2. *Soil Inorganic and Organic Components* 3. *The phenomenon of entrapment in the soil* 4. *Cation exchange* 5. *Anion exchange* 6. *Anion uptake by soil colloids* 7. *Soil reactions* 8. *Oxidation-reduction process* 9. *Chemical processes and soil formation* 10. *Discussion of research in soil chemistry and presentation.* |
| Semester(s) in which the module is taught | *Uneven* |
| Person responsible for the module | *Dr. Ir. Eko Hanudin, MS.* |
| Lecturer | *Dr. Ir. Benito H. Purwanto, MS., M. Agr. Sc.*  *Dr. Ir. Eko Hanudin, MS.* |
| Language | *Bahasa/Indonesian language* |
| Relation to curriculum | *Compulsory* |
| Type of teaching, contact hours | *Lecture, practical, presentation* |
| Workload | *2/1 SKS or 3,02/1,51 ECTS* |
| Credit points |  |
| 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 | *Students must be able to know and understand (know and understand) the kinds of reactions that occur in the soil and the adsorption-desorption mechanism of cations or anions in relation to their availability for plants.*  *Students are able to find and present the latest information in the field of soil chemistry, both in nutritional disorder research and in its application in the field..* |
| Content | 1. *The basic principles of soil chemistry* 2. *Inorganic and inorganic components of soil* 3. *The phenomenon of entrapment in the soil* 4. *Cation exchange* 5. *Anion exchange* 6. *Soil reactions* 7. *Oxidation-reduction process* 8. *Chemical processes and soil formation* 9. *Discussion of research in soil chemistry* |
| Study and examination  requirements and forms of examination | *Assesment Presentasi/UTS/UAS* |
| Media employed | *Text, Presentation, Visual & Audio Web.* |
| Reading list | *1. Burau, R.G and Zasoski, R.J. 2002. Soil and Water Chemistry. UC. Davis* |