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| 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.*
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| 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*
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| Study and examinationrequirements 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* |