ЗАВДАННЯ

для дистанційного вивчення дисципліни «Ґрунтознавство»,
студентами, що навчаються за спеціальністю 193 Геодезія та землеустрій,
факультету землевпорядкування, 1 курс 2 група (англ.)
на період з 16.03. по 5.04. 2020 року
(підготував доц. Ю.С. Кравченко)

1. **Підготувати конспекти лекцій*:**
   Лекції: 5 - 9;
   * Режим доступу. – https://drive.google.com/drive/folders/1B0DFeYIHl_Ln8cgnzKAFTIkzjxRGj... був наданий групі на першій лекції.

2. **Підготувати конспекти до виконання лабораторних робіт *:**

a. Laboratory Lesson Five: Base Exchange Capacity and the Form of Soil Acidity. – P. 30-35.
b. Laboratory Lesson Six: Management of Soil Reaction. – P. 36 – 43.
c. Laboratory Lesson Seven: Soil Extract Analysis. – P. 46-47.

   * Petrenko L., Berezhniak M., Kravchenko Yu., Tonkha O., Berezhniak Ie., Bykova O. Soil Science : Practical Methods Manual / [L. Petrenko, M. Berezhniak, Yu. Kravchenko та ін.]. – NUBIPU Publishing Center, Kyiv, 2013. – 429 pp. – Режим доступу. – https://drive.google.com/drive/folders/0B9hEeo6eOEEidn... був наданий групі на першій лекції.

3. **Опрацювати самостійно питання до написання першої модульної роботи.**

1. What is the purpose of soil sampling?
2. Why and how is hygroscopicity coefficient computed?
3. On which factors and how does soil hygroscopic moisture depend?
4. Speak on soil sample preparation for organic carbon (humus) determination.
5. What is hygroscopic moisture of the soil sample?
6. Speak on soil sample preparation for mechanical (particle size) analysis.
7. Speak on the agronomic importance of maximal hygroscopicity.
8. Speak on the safety during soil sample processing.
9. Speak on the analytical procedure of soil hygroscopic moisture determination.
10. What is permanent wilting point (PWP) and conventional way of its computation?
11. What is hygroscopicity coefficient?
12. On what factors depends the procedure of soil sampling in the field?
13. Why particle size analysis (PSA) is one of the most requested analysis in soil characterization?
14. Describe the field method of soil texture diagnostics.
15. Speak on particle size classification by N.A.Kachinsky.
16. Give reasons for dividing elementary soil particles into physical sand find physical clay.
17. Describe the sizes and properties of clay.
18. Describe the % content of physical clay in loamy sand.
19. Differentiation degree of soil profile.
20. What information is needed to determine soil texture group by Kachinsky's classification?
21. Describe analytical procedure of a pipette method.

22. Derive sedimentation equation based on Stokes' law.
23. Explain the use of a hydrometer for particle size analysis in the USA.
24. Describe the sizes and properties of silt.
25. Describe the % content of physical clay in loam.
26. Potential ability of soils to aggregate formation.
27. Describe textural triangle and explain how to use it for soil texture determination.
28. Agronomic importance of soil texture. Crop responses to soil texture.
29. Speak on soil texture classification by N.A.Kachinsky.
30. Weak points of granulometry based on Stokes' law.
31. Describe the sizes and properties of sand.
32. Describe the % content of physical clay in clay.
33. Differentiation coefficient of soil profiles.
34. Speak on the forms of SOM as presented by D.S.Orlov.
35. Describe wet combustion method of SOM determination by I.V. Tyurin's procedure.
36. How to evaluate SOM amount by the scale proposed by L.A.Grishina and D.S.Orlov?
37. How to compute and express SOM determination results?
38. Factors of soil formation.
39. Types of soil humus.
40. Describe the properties of Fulvic Acids.
41. How to compute the amount of SOM (humus) in a layer of soil in mt/ha?
42. How to evaluate SOM content by the scale proposed by L.A.Grishina and D.S.Orlov?
43. Speak on the SOM content and amount in Ukrainian soils.
44. Speak on the agronomic and soil-protecting roles of soil humus?
45. Speak on the "group composition" and 'type" of soil humus.
46. Speak on soil humus as a colloidal matter.
47. Speak on the environmental; significance of a humosphere.
48. Speak on the agronomic practices of SOM conservation.
49. General scheme of soil formation.
50. Humification.
51. Describe the properties of Humic Acids.
52. Soil as a medium for plant growth.
53. Sources and composition of SOM.
54. Describe the properties of Humin.
55. Soil as a medium for plant growth.
56. Sources and composition of SOM.
57. Describe the properties of Humin.