

As of the exam to be conducted in spring, 2020 (February 20, 2020), Human and Ecological systems Course will ask the fundamental knowledge on Specialized Subjects to all applicants to Human and Ecological Systems Course of Master's Program.

Here are some examples to be asked.

(Sample questions)

Choose 10 among the followings and describe each of them in 3-4 lines.

1. Relationship among stream channel, riverbed gradient, and alluvial fan formation
2. Relationship among landuse, artificial exhaust heat, and heat island
3. Relationship between meandering river and river gradient
4. pyroclastic flow
5. moraine
6. tundra
7. difference between fjord and ria coast
8. island arc
9. transform fault
10. top predator
11. species-area curve
12. biodiversity hotspot
13. light pollution
14. equivalent continuous sound pressure level
15. geostationary satellite
16. inertial oscillation
17. difference between "virtual potential temperature" and "equivalent potential temperature"
18. Wien's displacement law
19. planetary wave
20. trophic cascade
21. ecosystem service
22. density effect
23. parasitism
24. secondary production
25. community ecology
26. intermediate disturbance hypothesis
27. differences between inter-and intra-specific competition
28. Relationship among α , β and γ diversities
29. importance of long-term ecosystem monitoring

30. global warming
31. ocean acidification
32. mitigation
33. adaptation
34. renewable energy
35. feed-in tariff
36. water-food-energy nexus
37. conflicts between renewable energy and ecosystem
38. United Nations Framework Convention on Climate Change
39. Intergovernmental Panel on Climate Change
40. Paris Agreement
41. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
42. Sustainable Development Goals