

Syllabus for the Entrance Examination in Biology (Nursing) – 2023/2024

1. Tissues. Epithelial and connective tissue. Muscle and nervous tissue
2. The digestive system. Digestion in the mouth. Digestion in the stomach and intestines
3. The respiratory system
4. The urinary system
5. The cardiovascular system. Heart and blood vessels. Blood – plasma, clotting, formed elements, blood groups. Heart activity and blood circulation
6. The locomotor system. Structure of bones and joints. The skull. The vertebral column, the chest and the limbs. The muscles
7. The reproductive system. The male reproductive system. The female reproductive system
8. The nervous system. The spinal cord. The brain – parts and functions. The cerebrum
9. The endocrine system. The hypophysis and the epiphysis, the thyroid gland and the parathyroid glands¹. The pancreas, the adrenal glands, the sex glands
10. The sensory systems. The visual sensory system. The auditory sensory system
11. The skin
12. Proteins
13. Enzymes
14. Nucleic acids
15. Viruses. Viral diseases
16. The prokaryotic cell. Bacterial diseases
17. The eukaryotic cell
18. Chromosomes – structure, karyotype
19. Cell division. Mitosis
20. Meiosis
21. Heredity and variability of organisms
22. Monohybrid crossing. Mendel's laws
23. Interactions between alleles of a gene
24. Dihybrid crossing
25. Genotypic variability. Gene and structural chromosomal mutations
26. Numerical chromosomal mutations
27. The genetics of sex determination in man
28. Genetic abnormalities and diseases in man
29. Reproduction in animals and man
30. Gametogenesis
31. Gametes and fertilization

Example textbooks*:

Biology and Health Education for 9. Grade - part 1, Vladimir Ovcharov, Ognyan Dimitrov, Kameliya Yotovska, Mariana Hristova, Tanya Dimitrova. <https://www.book.store.bg/p238208/biology-and-health-education-for-9-grade-part-1-uchebnik-po-biologia-i-zdravno-obrazovanie-na-anglijski-ezik-za-9-klas-chast-1.html>

Biology and Health Education for 9. Grade - part 2, Vladimir Ovcharov, Ognyan Dimitrov, Kameliya Yotovska, Mariana Hristova, Tanya Dimitrova. <https://bukvara.com/biology-and-health-education->

[for-9th-grade-part-2-bulvest-2000-ognqn-dimitrov-vladimir-ovcharov-tanq-dimitrova-mariana-hristova.html](https://www.minedu.bg/for-9th-grade-part-2-bulvest-2000-ognqn-dimitrov-vladimir-ovcharov-tanq-dimitrova-mariana-hristova.html)

Biology and Health Education for 10. Grade O. Dimitrov, M. Kozhuharova, T. Argirova, V. Bogoev, I. Minkov, G. Kimenov, M. Slavova.

<https://knijarnica.bg/product/biologiq-i-zdravno-obrazovanie-za-10-klasrza-uchi/>

*Any other high school biology textbooks containing material on the topics in the syllabus are appropriate.