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| Teacher | Summary | The name of the special course |
| Professor  Zyuzin VO | A special course is designed for medical students. Topics and materials for practical classes are selected in accordance with the program of the discipline «*Modern methods of genetic diagnostics»*.  Genetic diagnostics is a branch of medical genetics, which also uses methods for diagnosing human diseases, such as genealogical, twin, cytogenetic, biochemical, dermatoglyphic, population-statistical, molecular-genetic.  The purpose of studying the discipline «Modern methods of genetic diagnostics» is the formation of students' genetic diagnostic thinking, acquaintance of students with modern problems and the latest achievements in the field of genetic diagnostics, prospects for implementation of these achievements in practical medicine.  The main objectives of the elective course «Modern methods of genetic diagnosis» are:   * formation of students' ability to interpret the results of genetic diagnostics, which underlie the violation of human life; * acquaintance of students with modern achievements, problems and main trends in the field of genetic diagnostics; * mastering the genetic basis of diagnostic techniques based on modern advances in genetics.   Achieving these goals will allow medical students to master modern methods of genetic diagnosis, which are necessary for the direct formation of a professional doctor in their field, as well as for the study of other theoretical and clinical disciplines in higher medical education.  During the study of this discipline students will gain theoretical and practical knowledge about genetic mechanisms for diagnosing the functioning of living organisms at the cellular and subcellular level, will study the genetic mechanisms of methods in diagnosing the action of external factors on organ systems.  Students will deepen their knowledge on a wide range of issues related to the genetic mechanism of diagnostic methods, master the methods of genetic study of the structure and functions of individual cells, organs and the body as a whole, get acquainted with the basics of laboratory genetic diagnosis.  Students will be able to use the acquired knowledge and skills in their future professional activities and further education in senior courses. They will have basic knowledge of the processes that occur in the process of genetic diagnostic research at the molecular-genetic and cellular levels of life of organisms, basic knowledge of genetic patterns that underlie life and mechanisms of external factors on organ systems. Will be able to apply knowledge of modern methods of genetic diagnostics and other related sciences to solve problems of modern medicine. | «*Modern methods of genetic diagnosis»* |