|  |  |  |
| --- | --- | --- |
| Teacher | Summary | The name of the special course |
| ProfessorZyuzin 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 «*Medical Genetics»*.Medical genetics is the science of normal and pathological human heredity. In medical genetics, such methods of human genetics are used as genealogical, twin, cytogenetic, biochemical, dermatoglyphic, population-statistical, molecular-genetic.The purpose of studying the discipline «Medical Genetics» is the formation of students' genetic thinking, acquaintance of students with modern problems and the latest achievements in the field of medical genetics, the prospects of implementing these achievements in practical medicine.The main objectives of the elective course «Medical Genetics» are:* formation of students' ability to interpret the general genetic patterns that underlie human life;
* acquaintance of students with modern achievements, problems and main trends in the field of medical genetics;
* mastering the genetic basis of therapeutic and diagnostic techniques based on modern advances in medical genetics.

Achieving these goals will allow medical students to acquire medical and genetic knowledge and skills 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 the genetic mechanisms and patterns of functioning of living organisms at the cellular and subcellular level, will study the genetic mechanisms of action of external factors on organ systems.Students will deepen their knowledge on a wide range of issues related to genetic mechanisms, cellular metabolism and mechanisms of its regulation, 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 medical and genetic counseling.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 at the molecular, genetic and cellular levels of life of organisms, basic knowledge of genetic patterns that underlie life and genetic mechanisms of external factors on organ systems. Will be able to apply knowledge of medical genetics and other related sciences to solve problems of modern medicine.  | «*Medical genetics»*  |