

Curriculum for Ph.D. Student of Medical Biotechnology

Compensatory courses

Medical information systems
Cellular-molecular biology
Biosafety and lab principles
Research method and paper presentation
Electrochemistry
Immunochemistry
Practical microbiology
Cell culture
Principles of working on lab animals

Core courses

Theoretical principles of molecular genetics and genetic engineering
Bioethics
Seminar
Computational and systems biology
Practical genetic engineering
Protein engineering
Principles and application of engineering procedures in biotechnology
Application of vaccines and antibodies in biotechnology
Nanobiotechnology
Principles of standardization and safety of biologic products
Thesis

Non-core courses

Stem-cell application in biotechnology
Application of microarrays and microfluidics in diagnosis
Economics, innovation and intellectual property in biotechnology