



## Clinical pharmacy program courses

Course title	Aim of the course	Academic Year	Credit hours	Code No.
<b>General Microbiology and Immunology</b>	<p>Students learn to acquire a round understanding of the theory and practice of microbiology including:</p> <ul style="list-style-type: none"><li>• Basic structures of bacteria (particularly the cell surface structures).</li><li>• Metabolic processes (how bacteria grow in response to their environment; how these processes are influenced by changes in the environment).</li><li>• Bacterial genetics (genetic variation, gene transfer and mutation, gene expression in response to changes in environment).</li><li>• Immunology (antigens, antibody, vaccines, pathogens).</li></ul>	Fourth semester	Theoretical: 3 Practical: 1 Total: 4 credit h/week	PM 401
<b>Parasitology</b>	<p>To provide specialized knowledge of the biological, epidemiological and ecological aspects of parasites causing human diseases, together with a description of the pathogenesis, clinical presentations and complications of these diseases.</p> <p>- To give students an idea about how to diagnose parasitic infections and determine the general lines of treatment, as well as prevention and control measures.</p>	Fourth semester	Theoretical: one credit hr Practical: 2 hrs (one credit hr) Total: 3 hrs (2 credit hrs)	MD 406
<b>Psychology</b>	<p>The aim of the course is to supply the students with basic knowledge concerning the influence of psychological disturbances on the human physical health and vice versa. Also, to gain skills in identification and dealing with psychic patients in an efficient and appropriate way.</p>	Third Semester	Theoretical: 2 hrs (2 credit hrs) Practical: 0 hr (0 credit hr) Total: 2 hrs (2 credit hrs)	HU 302



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<b>Clinical microbiology</b>	To provide students with a global knowledge of microbiology, including bacteriology, virology and mycology, with emphasis on infections of medical significance as regarding their causative agents, symptoms, laboratory diagnosis, treatment, prevention and control.	Fifth Semester	Theoretical: 2 hrs (2 credit hrs) Practical: 2 hrs (one credit hr) Total: 4 hrs (3 credit hrs)	PM 502
<b>Pharmaceutical microbiology</b>	To provide pharmacy students with good knowledge on the impact of microbial studies on the field of pharmacy, pharmaceutical industry and sterilization processes.	Fifth Semester	Theoretical: 2 Practical: 1 Total: 3 credit h/week	PM 704
<b>Pathology</b>	After completing this course, students should have a sound knowledge of the etiology, basic characteristic features and the diagnosis of the major diseases of the different body systems, including respiratory tract, CNS, cardiovascular system, ..etc.	Sixth Semester	Theoretical: 2 hrs (2 credit hrs) Practical: 2 hrs (one credit hr) Total: 4 hrs (3 credit hrs)	MD 608
<b>Pharmaceutical biotechnology</b>	The biotechnology learning program should provide the pharmacy student with principles of drug development through pharmaceutical biotechnology, antisense drugs and gene therapy.	Seventh Semester	Theoretical: 2 Practical: 1 Total: 3 credit h/week	PM 703
<b>Public health and Preventive Medicine</b>	After completing the course, students should have a basic knowledge and understanding of the fundamentals of epidemiology, communicable and non-communicable diseases and their control, as well as food and blood- borne diseases. Students should also acquire a sound idea about occupational medicine and environmental health including pollution and proper waste treatment and disposal. This course also aims at enlightening the students about immunization and nutrition concepts.	Seventh Semester	Theoretical: 2 hrs (2 credit hrs) Practical: 0 hr (0 credit hr) Total: 2 hrs (2 credit hrs)	MD 710