

Code	Course	Description
0905803	Selected Topics in Advanced Medicinal Chemistry and Drug Analysis	<p>Compulsory element Second semester Lectures: 3 credit hrs total: 3 credit hrs</p> <ol style="list-style-type: none"> a. Provide the doctorate student a superior experience by offering advanced understanding about the important chemical, pharmacological and biochemical technology of medicinal agents that improve the disorder and regain the proper function of different systems of the human body. b. Encourage emphasizing the importance of medicinal chemistry research in drug production so as to advance the well-being of the Egyptian people and the global community through creation of skillful scientists that incorporate chemistry and biological sciences for improving drug discovery and enhancing human health. c. Express research profile (students, publications and degree programs) that are competitive with other PhD degrees and focus on topics at the forefront of medicinal chemistry. d. Create a long standing reputation in excellence to rank among the top best faculties in Egypt and to serve as a stepping stone for students who want to pursue professional careers. e. Afford efficient leading edge, effective facilities and technology infrastructure to advance and support post-graduate education and research. f. Continuing professional development and educating experiences to develop privileged doctorate graduates who acquire advanced knowledge and skills to apply pharmaceutical chemistry successfully within their disciplines. g. Emphasize the significance of Applied Analytical Pharmaceutical Chemistry research in drug industry and quality control/assurance. h. Offer advanced understanding of the principle of different methods used for drug analysis. i. Implement suitable mechanisms for derivatization reactions in order to label selected classes of pharmaceuticals and biomarkers.
0905801	Selected Topics in Advanced Pharmaceutical Organic	Compulsory element First Semester

	Chemistry	<p>Lectures: 3 credit hrs total: 3 credit hrs</p> <ol style="list-style-type: none"> To deliver a course of the highest academic quality that will provide a flexible and intellectually challenging learning experience, instill and encourage student enthusiasm. To provide students with a broad, balanced and in depth knowledge of pharmaceutical organic chemistry based on firm foundations and leading to a critical awareness of the most recent developments in the subject. To give the students a core of theoretical and practical knowledge and the ability to apply it to further studies in organic chemistry or multidisciplinary areas involving organic chemistry or employment in chemistry based industry. In particular the ability to plan and execute experiments and calculations independently and to assess critically the significance of the outcome. To develop in students a range of generic skills of value in chemical or non-chemical employment.
0905802	Seminar I	<p>Compulsory element tutorial: 3 credit hrs total: 3 credit hrs</p> <ol style="list-style-type: none"> Development of PhD graduates who can use up to date tools in retrieving information from proper sources of scientific information such as PubMed, Scifinder, Beilestein crossfire or other data bases. Supply students with skills of searching about new topics in the field of drug design and drug synthesis in areas related to the topics discussed in the PhD Pharmaceutical Chemistry courses. Supply students with the proper skills that enable them to know how access relevant full articles and apprehend them, prepare a referenced scientific report, and finally present the information compiled in a clear and comprehensive way for an audience of the teaching staff in the department and answer their inquiries.
0905804	Seminar II	<p>Compulsory element tutorial: 3 credit hrs total: 3 credit hrs</p>

		The course aims to widen the scope of students searching skills enabling them to search in the scientific literature on latest themes in advanced medicinal chemistry, to develop E-learning, self-learning skills using up-to-date tools in retrieving information from reliable sources, to access relevant full articles and apprehend them, to prepare a referenced scientific report, to expand the capability of communication skills and to present the gathered information in a clear and comprehensive way to an audience of the teaching staff in the department and construct reasoned discussions and arguments.
0905805	Abuse and misuse of drugs and drug metabolism	<p>Elective element</p> <p>Lectures: 3 credit hrs total: 3 credit hrs</p> <p>The course include general concepts of drug abuse and misuse, different classes of abused drug, drugs in sports, their mechanism of action and side effects. The course also covers the area of metabolism including the concept of prodrugs, active metabolites, soft and hard drugs, enzyme induction and inhibition.</p>
0907704	Quality control of pharmaceutical products and validation of analytical methods.	<p>Elective element</p> <p>Lectures: 3 credit hrs total: 3 credit hrs</p> <p>The course aim to:</p> <ul style="list-style-type: none"> • Provide postgraduates with basic and advanced knowledge in the area of quality control and validation of analytical methods. • Equip post graduates with skills and experience to benefit across their studies and / or their current work. Based on the cited theoretical knowledge, the acquisition of analytical research skills for the control of bulk products and of finished medicament preparations
0907804	Stability indicating methods of pharmaceutical analysis	<p>Elective element</p> <p>Lectures: 3 credit hrs total: 3 credit hrs</p> <p>This course aim to</p> <ul style="list-style-type: none"> • Display a sound knowledge and understanding of principles and recent advances in theory and practice of stability indicating analytical methods for the determination of drugs and

		<p>pharmaceutical products in presence of their degradation products</p> <ul style="list-style-type: none">• Illustrate the ability to analyze and interpret data, design and conduct research in their field of expertise.• Effectively communicate scientific information both orally and in writing to scientists and non scientists.• Apply analytical and critical thinking in reviewing literature.
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