

Master

M.Sc. in pharmaceutical sciences (Pharmaceutical Analytical Chemistry)

1. Duration of program	Minimum of two years
2. Language of study	English
3. Academic reference standards	-National Academic Reference Standards (NARS) for postgraduate studies, 1 st Edition, February 2009 (<i>National Authority for Quality Assurance and Accreditation</i>).
4. Aims of the programme(s)	<p>The MSc program in pharmaceutical Analytical Chemistry aims to</p> <ul style="list-style-type: none">• Demonstrate competence in advanced knowledge and understanding of principles in theory and practice of pharmaceutical analytical sciences.• Discuss current knowledge in the area of spectroscopic, chromatographic, electrochemical techniques and applications relating to analytical chemistry or pharmaceutical analysis.• Provide industrially relevant courses in which post-graduates can easily relate their current work and/or experience to their studies to benefit both in quality control and validation of analytical methods.• equip post-graduates with key problem-solving, practical , computing and information technology skills in preparation for their careers in a variety of work environments;• provide the skills required for self-management and autonomy in the planning, organization and conduct of an independent research project;• provide post-graduates with further opportunities to develop their written and oral communication skills;• Apply analytical and critical thinking in reviewing literature.• Exhibit professionalism and the highest ethical standards.• Offer the opportunity for post-graduates to express originality and creativity in the quest for new knowledge, the application of current knowledge to new situations or the analysis of knowledge from a novel standpoint.• Provide a broad and balanced training in laboratory and research skills.• Foster the ability to work independently and as part of a group, and to develop presentation skills, both written and oral.

Name of course	Credit Hour	Description
0907702 Advanced chromatographic methods of analysis I	Lectures: 3 Seminars / Tutorial: -- Practical: -- Others: -- <u>Total: 3</u>	This course aims to: -Give post-graduates a more specified knowledge on HPLC and HPTLC techniques and their applications in pharmaceutical analysis, environmental analysis and drug analysis in biological fluids. -equip them also with key problem-solving in these chromatographic techniques -Apply the specialized knowledge and integrate them with related knowledge in professional practice.
0907703 Advanced Electrochemical Methods of Analysis	Lectures: 3 Seminars / Tutorial: -- Practical: -- Others: -- <u>Total: 3</u>	This course aims to: -Demonstrate competence in knowledge and understanding of principles in theory and practice of most common electrochemical methods of analysis. -Identify appropriate electrochemical methods for certain chemical analysis. -Effectively communicate results of scientific inquiries orally and in writing. -provide the skills required for self-management and autonomy in the planning, organization and conduct of an independent research project -Apply analytical and critical thinking in reviewing literature. -Exhibit professionalism and the highest ethical standards.
0907701 Advanced spectroscopic methods of analysis	Lectures: 3 Seminars / Tutorial: -- Practical: -- Others: -- <u>Total: 3</u>	This course aims to: -Demonstrate competence in knowledge and understanding of principles in theory and practice of most common spectroscopic methods of analysis. -Identify appropriate spectroscopic methods for

		<p>certain chemical analysis.</p> <ul style="list-style-type: none"> - Effectively communicate results of scientific inquiries orally and in writing. - Design experiment, implement analysis using the relevant chemical literature, process and analyze the data and, effectively, communicate results orally and in writing. - Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning.
<p>0907704 Quality control of pharmaceutical products and validation of analytical methods.</p>	<p>Lectures: 3 Seminars / Tutorial: -- Practical: -- Others: -- <u>Total: 3</u></p>	<p>This course aims to:</p> <ul style="list-style-type: none"> -Provides 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

