

## Diploma

### Diploma in Analysis of Nutripharmaceuticals and Cosmetics in Pharmaceutical Analytical Chemistry

1. Duration of programme	Minimum of two years
2. Language of study	English
3. <i>Academic Reference Standards</i>	<i>National Academic Reference Standards (NARS) Pharmacy January 2009 1st Edition. (National Authority for Quality Assurance and Accreditation of Education) .</i>
4. Aims of the programme(s)	<p>The Diploma in Analysis of Nutripharmaceuticals and Cosmetics programmes aim to:</p> <ul style="list-style-type: none"><li>• provide the graduates with a background in the area of nutripharmaceuticals and cosmetic</li><li>• Work with the Egyptian pharmaceutical industry to ensure course material is timely, relevant and has practical application.</li><li>• provide post graduate with further opportunities to develop their verbal and non-verbal communication skills.</li><li>• apply critical and analytical thinking in reviewing literature.</li><li>• Promote self-development academically and professionally, and apply continuous self-education</li></ul>

Name of Course	Credit Hour	Description
<b>0907603</b> Analysis for nutripharmaceuticals and cosmetics by HPLC	<b>-Lectures: 2</b> <b>Others:</b> <b>Practical: 2</b> <b>Seminars/Tutorial:</b> <b><u>Total: 3</u></b>	This course aims to: -Give post-graduates a more specified knowledge on HPLC technique and its applications in nutripharmaceuticals and cosmetics analysis. -Equip them also with key problem-solving in this technique. -Effectively communicate results of scientific inquiries orally and in writing. -Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning.
<b>0900701</b> Computer science and medical informatics	<b>Theoretical:</b> 2hours/week <b>Tutorial:</b> <b>Practical:</b> <b>Total No. of hours:</b> 2 hours/week	-Computer Sciences have shown great advances during the previous years, affecting and enhancing lots of other sciences through their applications in different fields especially in health care. -Introduce different computer applications (including office programmes) to the students that have direct impact on their daily life and that might have a good contribution to their research fields. -Demonstrate theoretical knowledge and have practical skills of the most common computer networks (wired and wireless networks), relational database, and modern programming concepts, introducing basics of programming. -Identify appropriate internet sources and their utilization and evaluation. -Exhibit competence in knowledge and understanding of principles of biomedical Informatics and its applications in health care.
<b>0907702</b> Advanced chromatographic methods of analysis I	<b>Lectures: 3</b> <b>Others:</b> <b>Practical:</b> <b>Seminars/Tutorial:</b> <b><u>Total: 3</u></b>	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.

		<p>-equip them also with key problem-solving in these chromatographic techniques</p> <p>-Apply the specialized knowledge and integrate them with related knowledge in professional practice.</p>
<p><b>0900703</b> Spectroscopy</p>	<p><b>Theoretical</b> 3 hours/week <b>Tutorial:</b> <b>Practical –</b> <b>Total No. of hours:</b> 3 hours/week</p>	<p>This course aims to:</p> <ul style="list-style-type: none"> <li>-Demonstrate theoretical knowledge and have practical skill of the most common instrumental analytical methods</li> <li>-Identify appropriate instrumental methods for certain chemical analysis.</li> <li>-Effectively communicate results of scientific inquiries orally and in writing</li> <li>-Design experiment, implement analysis using the relevant chemical literature, process and analyze the data and, effectively, communicate results orally and in writing</li> <li>-Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning.</li> </ul>
<p><b>0900704</b> Separation techniques and electrochemical analytical methods</p>	<p><b>Theoretical</b> 3 hours/week <b>Tutorial:</b> <b>Practical –</b> <b>Total No. of hours:</b> 3 hours/week</p>	<p>This course aims to:</p> <ul style="list-style-type: none"> <li>-Demonstrate competence in knowledge and understanding of principles in theory and practice of the most common separation techniques.</li> <li>-Get basic knowledge underlying the current electrochemical analytical methods and their instrumentation.</li> <li>-Gain information about goals of GC, HPLC and capillary electrophoresis.</li> <li>-Know how to select and develop the method of choice to achieve a successful run.</li> <li>-Know the applications of separation techniques in pharmacy.</li> </ul>
<p><b>0907601</b> Nutripharmaceuticals and cosmetic, their composition and chemistry</p>	<p><b>Lectures: 2</b> <b>Others:</b> <b>Practical: 2</b> <b>Seminars/Tutorial:</b> <b>Total: 4</b></p>	<p>This course aims to :</p> <ul style="list-style-type: none"> <li>-Demonstrate competence in advanced knowledge and understanding of composition and chemistry of nutripharmaceuticals and cosmetic</li> <li>-Discuss current knowledge in the area of composition and chemistry of nutripharmaceuticals and cosmetic</li> </ul>

		<ul style="list-style-type: none"> <li>-Apply analytical and critical thinking in reviewing literature.</li> <li>-Exhibit professionalism and the highest ethical standards.</li> <li>-Effectively communicate results of scientific inquiries orally and in writing.</li> <li>-Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning</li> </ul>
<b>0907604</b> Packaging and optimum storage conditions for food stuff. Regulatory and legal concepts	<b>Lectures: 3</b> <b>Others:</b> <b>Practical:</b> <b>Seminars/Tutorial:</b> <b>Total: 3</b>	This course aims to : <ul style="list-style-type: none"> <li>-Demonstrate competence in understanding the different spoilage mechanisms, the packaging requirements and the quality assurance for packaging.</li> <li>-Identify appropriate packaging materials and storage conditions for various nutraceuticals.</li> <li>-Effectively communicate results of scientific inquiries orally and in writing.</li> <li>-Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning</li> </ul>
<b>0900702</b> Physical Chemistry	<b>Theoretical:</b> 2hours/week <b>Tutorial:</b> <b>Practical –</b> <b>Total No. of hours:</b> 2 hours/week	This course aims to : <ul style="list-style-type: none"> <li>-Give post graduates knowledge on chemical kinetics, thermodynamics, polymer science and other topics related to their pharmaceutical studies.</li> <li>-Develop in students the ability to apply their chemical knowledge skills and education in chemistry</li> <li>-Equip them also with key problem-solving in this field of study.</li> <li>-Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning.</li> </ul>
<b>0907602</b> Physico-chemical methods of	<b>Theoretical: 2</b> <b>Others:</b> <b>Practical: 2</b> <b>Seminars/Tutorial:</b>	This course aims to : <ul style="list-style-type: none"> <li>-Identify appropriate physicochemical methods for certain chemical analysis.</li> <li>-Effectively communicate results of scientific inquiries orally</li> </ul>

analysis of nutripharmaceuti cals and cosmetics	<b><u>Total: 3</u></b>	and in writing. -Cultivate a professional attitude and develop skills relative to communication, team work, time management and responsibility for individual learning. -Exhibit professionalism and the highest ethical standards.
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