

Program Report

Program Report

٢٠٠٦ / ٢٠٠٧

A- Basic Information.

١- Program Title : B.Sc. in pharmaceutical Sciences

٢- Year ٢٠٠٦/٢٠٠٧

٣- Program Type: Single Double Multiple

٤- Faculty (Faculties): Pharmacy

٥-Department (Departments):

١- Pharmaceutics

٢- Pharmacognosy

٣- Pharmaceutical Medicinal Chemistry

٤- Pharmaceutical Organic Chemistry.

٥- Pharmaceutical Analytical Chemistry.

٦- Industrial Pharmacy

٧- Assistant Coordinator:

٨- Coordinator: Prof. Dr. Adel Fawzy

B- Statistics:

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٢٠٠٣/٢٠٠٤

Grade	Attended	Absent	Joined exam	Successful students												September exam	Failed	Rejected	% of Passed students
				Excellent		Very good		Good		Passed		Referred students		Total					
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Pre Pharmacy	٨٩٦	-	٨٩٦	٣٩	٤,٤	١٩٦	٢١,٩	٢٩٨	٣٣,٣	٧٣	٨,١	٢٣٦	٢٦,٣	٨٤٢	٩٤	-	٤٩	٥	٩٤
First year	٦٦٧	-	٦٦٧	٩	١,٣	٧٩	١١,٨	٢١٦	٣٢,٥	٧٣	١٠,٩	٢١٧	٣٢,٥	٥٩٤	٨٩,١	-	٦٤	٩	٨٩,١
Second year	٦٥٢	-	٦٥٢	٢٠	٣,١	١٦٥	٢٥,٣	٢٥٥	٣٩,١	٤٠	٦,١	١٢٣	١٨,٩	٦٠٣	٩٢,٥	-	٣٩	١٠	٩٢,٥
Third year	٦٤٨	-	٦٤٨	١٤	٢,٢	٨٣	١٢,٨	٢٠١	٣١,١	٧٥	١١,٦	٢٠٣	٣١,٣	٥٧٦	٨٨,٩	-	٥٥	١٧	٨٨,٩
Fourth year	٦٠٩	٧	٦٠٢	٨	١,٣	٨٤	١٣,٧	٢٥٣	٤١,٥	٨٢	١٣,٥	-	-	٤٢٧	٧٠,٩	١٣١	٣٥	٩	٧٠,٩
Total	٣٤٧٢	٧	٣٤٦٥	٩٠	٢,٦	٦٠٧	١٧,٥	١٢٢٣	٣٥,٢	٣٤٣	٩,٩	٧٧٩	٢٢,٤	٣٠٤٢	٨٧,٨	١٣١	٢٤٢	٥٠	٨٧,٨

B- Statistics:

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٢٠٠٤/٢٠٠٥

Grade	Attended	Absent	Joined exam	Successful students												September exam	Failed	Rejected	% of Passed students
				Excellent		Very good		Good		Passed		Referred students		Total					
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Pre Pharmacy	١٠١٨	-	١٠١٨	٤٤	٤,٣	٢٦٩	٢٦,٥	٣٩٠	٣٨,٤	٦٤	٦,٣	٢٠٣	٢٠,٢	٩٧٠	٩٢,٣	-	٣٨	١٠	٩٢,٣
First year	٧٣٢	-	٧٣٢	١٨	٢,٥	٩٨	١٣,٤	١٨٦	٢٥,٤	٦٠	٨,٥	٢٦١	٣٥,٨	٦٢٣	٨٥,١	-	١٠٦	٣	٨٥,١
Second year	٥٨٤	-	٥٨٤	٢٦	٤,٥	١٣٧	٢٣,٥	١٩٦	٣٢,٤	٤١	٦,٢	١٣٦	٢٤,٣	٥٣٦	٩١,٩	-	٤٥	٣	٩١,٩
Third year	٦٦٠	-	٦٦٠	١٠	١,٥	١٠٣	١٥,٧	٢٨٤	٤٣,٣	٦٦	٩,٩	١٥٠	٢٢,٨	٦١٣	٩٢,٩	-	٤٧	-	٩٢,٩
Fourth year	٦٣٢	-	٦٣٢	٨	١,٣	١٠٠	١٥,٩	٢٧٩	٤٤,٤	٥٧	٩,١	-	-	٤٤٤	٧٠,٣	١٢٢	٦٦	-	٧٠,٣
Total	٣٦٢٦	-	٣٦٢٦	١٠٦	٢,٩	٧٠٧	١٩,٥	١٣٣٥	٣٦,٨	٢٨٨	٧,٩	٧٥٠	٢٠,٧	٣١٨٦	٨٧,٩	١٢٢	٣٠٢	١٦	٨٧,٩

B- Statistics:

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۲۰۰۵/۲۰۰۶

Grade	Attended	Absent	Joined exam	Successful students												September exam	Failed	Rejected	% of Passed students
				Excellent		Very good		Good		Passed		Referred students		Total					
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Pre Pharmacy	۷۱۹	-	۷۱۹	۲۷	۳,۸	۲۰۴	۲۸,۲	۲۸۰	۳۸,۹	۴۱	۵,۷	۱۲۱	۱۶,۸	۶۷۳	۹۳,۶	-	۳۹	۷	۹۳,۶
First year	۷۶۱	-	۷۶۱	۱۰	۱,۳	۹۷	۱۲,۷	۲۲۵	۲۹,۶	۷۶	۹,۹	۲۵۱	۳۲,۹	۶۵۹	۸۶,۶	-	۸۷	۱۵	۸۶,۶
Second year	۶۱۸	-	۶۱۸	۱۵	۲,۴	۹۹	۱۶	۱۹۶	۳۱,۷	۵۷	۹,۲	۱۷۱	۲۷,۷	۵۳۸	۸۷,۱	-	۶۷	۱۳	۸۷,۱
Third year	۵۵۰	-	۵۵۰	۲۴	۴,۴	۱۱۷	۲۱,۳	۲۰۶	۳۷,۵	۳۶	۶,۵	۱۱۷	۲۱,۳	۵۰۰	۹۰,۹	-	۳۱	۱۹	۹۰,۹
Fourth year	۶۸۷	-	۶۸۷	۱۲	۱,۷	۱۲۱	۱۷,۶	۳۴۵	۵۰,۲	۷۶	۱۱,۱	-	-	۵۵۴	۸۰,۶	۹۶	۲۳	۱۴	۸۰,۶
Total	۳۳۳۵	-	۳۳۳۵	۸۸	۲,۶	۶۳۸	۱۹,۱	۱۲۵۲	۳۷,۵	۲۸۶	۸,۶	۶۶۰	۱۹,۸	۲۹۲۴	۸۷,۷	۹۶	۲۴۷	۶۸	۸۵,۶

B- Statistics:

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٢٠٠٦/٢٠٠٧

Grade	Attended	Absent	Joined exam	Successful students												September exam	Failed	Rejected	% of Passed students
				Excellent		Very good		Good		Passed		Referred students		Total					
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Pre Pharmacy	٨٤٤	-	٨٤٤	٢١	٢,٥	١٩٣	٢٢,٩	١٨٨	٢٢,٣	٨	٠,٩	٣٠٧	٣٦,٤	٧١٧	٨٤,٩	-	١١٣	٢٢	٨٤,٩
First year	٧١٣	-	٧١٣	١٥	٢,١	١٢٩	١٨,١	١٩٤	٢٧,٢	٦٧	٩,٤	٢٤٦	٣٤,٥	٦٥١	٩١,٣	-	٤٦	١٦	٩١,٣
Second year	٦٦٥	-	٦٦٥	٢٣	٣,٥	١٢١	١٨,٢	٢٥٢	٣٧,٩	٦٣	٩,٥	١٩٤	٢٩,٢	٦٥٣	٩٨,٢	-	٣٠	٨	٩٨,٢
Third year	٥٧١	-	٥٧١	١٩	٣,٣	١١٢	١٩,٦	٢٣٣	٤٠,٨	٣٣	٥,٨	١٣٥	٢٣,٦	٥٣٢	٩٣,٢	-	٢٦	١٥	٩٣,٢
Fourth year	٥٤٢	-	٥٤٢	١٠	١,٨	١١٨	٢١,٨	٢٥٦	٤٧,٢	٥١	٩,٤	-	-	٤٣٥	٨٠,٣	٦٦	٢٧	١٤	٨٠,٣
Total	٣٣٣٥		٣٣٣٥	٨٨	١٣,٢	٦٧٣	١٠٠,٦	١١٢٣	١٧٥,٤	٢٢٢	٣٥	٨٨٢	١٢٣,٧	٢٩٨٨	٨٩,٥٨	٦٦	٢٤٢	٧٥	٨٩,٥٨

C- Professional Information.

1-Academic standards.

1,1- Adoption of program curriculum to academic standards and aims.

Subject	Lectures	Practical	Total*	%
1-Basic Sciences {62,0(31,0%)}				
Physical, inorganic and organic chemistry	8	6	14	17,6
Zoology	4	4	8	9,6
Computer Science	2	2	4	4,8
Physics	6	4	10	12,8
Botany	6	6	12	14,4
English	4	-	4	4,8
Organic pharmaceutical chemistry	10	11	21,0	24,8
Essentials of mathematics	4	-	4	4,8
Psychology	2	-	2	2,4
2-Applied Pharmaceutical Sciences {110(55,0%)}				
Pharmaceutical analytical chemistry	8	14	22	27,2
Pharmacognosy	9	12,0	21,0	26,2
Pharmaceutics	19	26	45	56,2
Microbiology	4	4	8	10,2
Pharmacology	4	0	4,0	5,0
Phytochemistry	6	6	12	15,2
Biochemistry	4	4	8	10,2
Pharmaceutical medicinal chemistry	8	10	18	22,5
Industrial pharmacy	4	2,0	6,0	7,5
Applied pharmacognosy	4	6	10	12,5
3-Medical Sciences {13,0(6,5%)}				
Anatomy	1	1	2,0	2,5
Histology	1	1	2,0	2,5
Physiology	4	-	4	5,0
Pathology	1	1	2,0	2,5
Biostatistics and Bioassay	4	2	6	7,5
4-Health and environmental Sciences {8,0(4,0%)}				
Parasitology	1	1	2,0	2,5
Public Hygiene	2	-	2	2,5
Toxicology, forensic chemistry and first aid	4	2	6	7,5
5-Pharmacy management, Marketing and Pharmacoeconomics {2(1%)}				
Pharmacy administration	2	-	2	2,5
6-Pharmacy Practice**				
	-	300	300,0**	

* المجموع بعد حساب كل ساعتين عملي تكافئ ساعة نظري
** الحسابات لا تشمل ساعات التدريب الصيفي

١,٢- Learning outcomes (ILOs) of the completed program.

a-Knowledge and Understanding: having successfully completed this program the graduate should have knowledge about:

- a^١- fundamentals of basic sciences: botany, zoology, physics, mathematics, computer science, general and organic chemistry, psychology in the level that prepare for sound comprehension of pharmaceutical and medical subjects.
- a^٢- fundamentals of medical basic sciences .
- a^٣- basic understanding of the physical and chemical properties of the materials that go into industrial manufacture of medicines and certain medical devices and appliances .
- a^٤- physico-chemical aspects of medicines and biological systems, including thermodynamics, chemical kinetics and assessment of chemical and physical stability also.
- a^٥- disease attributes: microbial, pathogenic, parasitic, viral and of metabolic disorders.
- a^٦- normal and abnormal body function: Physiology, Biochemistry, Genetics, Microbiology, Nutrition, Immunology, Infective processes, Histology, Pathology and Pathophysiology.
- a^٧- detailed knowledge about drug formulation , packaging and storage.
- a^٨- essentials of pharmacokinetics and bioavailability of medicines.

Understand the following:

- a^٩- significance of a healthy life style including relevant diet, nutrition, exercise and environment.
- a^{١٠}- etiology, pathogenesis and epidemiology of major diseases
- a^{١١}- profound knowledge of the actions, uses, adverse reactions, and toxicity of medicines.
- a^{١٢}- interactions of drugs together or with food and abuse of medicines also.
- a^{١٣}- absorption, distribution, metabolism and excretion of medicines, including routes of administration, and mathematical modeling
- a^{١٤} – properties roles and limitation of use medicinal and toxic plants.
- a^{١٥}- sources and purification of medicines of synthetic, natural, biotechnology products and excipients .
- a^{١٦}- assay of drugs: chemical , biological and drug monitoring
- a^{١٧}- non-pharmacological approaches for treatment of diseases .
- a^{١٨}- the relevant law, ethics, and codes of practice in community and industry .
- a^{١٩}- understands the principles of unit operations in drug manufacture.
- a^{٢٠}- Understand how to scan and express fluently pharmaceutical and medical texts in English.

b- Intellectual Skills:

- b¹- prepare medicines for individual patient use
- b²- the ability to advise patients and others about the relationship between human body system safe and effective use of medicines
- b³- Organize the logical thinking to be able to find appropriate methods for directing patient toward enhanced therapeutic efficiency.
- b⁴- design, implement, monitor, evaluate, and modify or recommend modifications in drug therapy to insure effective, safe, and economical patient care.
- b⁵- identify, assess, and solve medication and environmental related problems.
- b⁶- design and evaluate packaging and labeling processes.
- b⁷- predict the properties of medicinal agents and their relation to molecular structure
- b⁸- Specify, rationalize and develop physical, analytical and microscopical methods applicable for control of biological and chemical products and analysis of medicines in bulk and in dosage forms.
- b⁹- rational choice of adjuvant/s used for delivery and in formulation of biologically active molecules .
- b¹⁰- control of microbial contamination, sterilization processes, and aseptic procedures.
- b¹¹- ability to integrate information and propose approaches for monitoring and design of medicinal agents of different sources.
- b¹²- applies acquired principles for medicine formulation and systems for medicine delivery in the body.
- b¹³- ability to gather, comprehend, and assesses reliably scientific data.
- b¹⁴- collaborate with others as active partner in drug research team
- b¹⁵- Rationalize the suitable drug (s) affecting specific diseases related to biochemical disorders.

c- Professional and Practical Skills:

- c¹- evaluates drug orders or prescriptions,
- c²- accurately and safely compounds package and dispense medicines in appropriate dosage forms.
- c³- present oral and written information about drugs and pharmaceuticals .
- c⁴- provide supportive clinical services such as drug information, drug surveillance, drug delivery and distribution in different body organs and systems.
- c⁵- presentation and filing of medicines-based health care material and arguments clearly and correctly, with other health professionals and, where appropriate, to lay audiences.
- c⁶- cognitive dispensing of dressings, diagnostic systems, medical appliances and devices.
- c⁷- production of pharmacy specific documentation.
- c⁸- the operation of standard pharmaceutical instrumentation
- c⁹- skills in the analysis of medicines, biological sample and statistical treatment and presentation of data.
- c¹⁰- the ability to undertake risk assessments concerning different pharmaceutical preparations.
- c¹¹- Clarify the impact of certain clinical analytical reports.

c12- Provide good advice about balanced diet to promote the efficiency of medication and give hand in poisoning cases.

d- General and Transferable Skills:

d1- information technology skills, including word processing, spreadsheet use, database use, archiving data and information retrieval through online computer searches, and internet communication.

d2- calculation of medicine doses and dosage regimens.

d3- interpretation of prescriptions and other orders for medicines

d4- recommend, counsel, and monitor patient use of nonprescription drugs.

d5- provide emergency first aids.

d6- ability to interact effectively with patients, the public and health care professionals ; including communication, both written and oral.

d7- critical evaluation, interpretation of pharmaceutical information and data.

d8- an ethical attitude and approach

d9- independent study skills and problems solving in groups for continuing professional development.

d10- work in a variety of health care settings: team working, or need to work within personal limitations.

1,2,3- Teaching methods.

Teaching methods	Programme ILOs (By No.)			
	K, U *	IS **	P.S ***	G.T.S ****
Lecture	a1, a2, a3, a4, a5, a6, a7, a8, a9, a10, a11, a12, a13, a14, a15, a16, a17, a18, a19	b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, b13, b14	c4, c5, c6, c7, c8, c9, c10, c11, c12	d1, d2, d3, d4, d5, d6, d7, d8, d9, d10, d11
Lab	a4, a5, a6, a7, a8, a9	b1, b6, b8	c1, c2, c6, c8, c9	d1, d2, d3, d4

- * **Knowledge and Understanding**
- ** **Intellectual Skills**
- *** **Professional and Practical Skills**
- **** **General and Transferable Skills**

1,2,2- Learning Methods.

Learning methods	Programme ILOs (By No.)			
	K, U *	IS **	P.S ***	G.T.S ****
Tutorial		b ₂ , b ₃ , b ₄ , b ₈ , b ₉	c ₁ , c ₇ , c ₉ , c ₁₁ , c ₁₂	d ₂ , d ₃ , d ₄ , d ₈ , d ₉ , d ₁₁ , d ₁₂
Seminars		b ₂ , b ₃ , b ₇ , b ₁₁ , b ₁₈	c ₃ , c ₈	d ₁ , d ₇
Essay and Reports		b ₈ , b ₁₃ , b ₁₄	c ₃	d ₁ , d ₆ , d ₉
Field Training	a ₇ , a ₁₂ , a ₁₇ , a ₁₈	b ₁ , b ₂ , b ₃ , b ₄ , b ₆	c ₂ , c ₈ , c ₇ , c ₁₀ , c ₁₁ , c ₁₂	d ₂ , d ₃ , d ₄ , d ₈ , d ₆ , d ₇ , d ₁₁

- * Knowledge and Understanding
- ** Intellectual Skills
- *** Professional and Practical Skills
- **** General and Transferable Skills