

Program specification for diploma of Allergy

**Code: 1708600**

**University:** Alexandria

**Faculty:** Medical Research Institute

### Program Specification

#### **A- Basic information**

**1- Program title: Diploma in allergy**

**2- Program type:** single  double  multiple

**3- Department(s): Immunology and Allergy**

**4- Coordinator: Prof. Mohamed Sami Afifi**

**5- External evaluator(s): Prof. Dr. Serag Eldin**

**6- Last date of program specification approval: 05/06/2014**

#### **B- Professional Information**

##### **1- Program aims:**

Provide the students with a framework for understanding the role of immunology in medicine.

By end of the program, the student should:

1. Demonstrate **knowledge** of essential facts, concepts, principles and theories of normal and abnormal immunological function
2. Acquire an appropriate functional background of cells, tissues, organs & systems involved in immunologic response.
3. Acquire basic **knowledge** of immunology.
4. Describe the **integration** of immunologic functions, which characterize the performance of the human body.
5. **Integrate** concepts and relate ideas covered in different parts of the degree programme to analyze and **solve problems**.
6. Manage common and less common **clinical immunology problems** properly
7. Be able to perform basic and some advanced procedural / **practical skills** competently.
8. Be able to carry out immunologic **investigations** and relevant **techniques**.
9. Understand basics behind the choice of appropriate **tests**
10. Communicate effectively through written and oral presentation
11. Establish working relationship with colleagues and work effectively as a part of a team
12. Use information technology to increase his immunology knowledge.

##### **2- Intended learning outcomes ( ILOS )**

### **a- knowledge and understanding:**

- a1-** Recall the general description of immune system and describe different molecules that share in immunological cellular interaction.
- a2-** Describe cell surface ligand interaction and **explain** antigen processing and presentation.
- a3-** Define types of T cells, their response to antigens and relationship to B cells.
- a4-** Discuss the different techniques for serological diagnosis of infectious diseases as hepatitis A, B, C, EBV, TB, immunologic and molecular techniques.
- a5-** Understand how to present clinical data and recall national and international relevant clinical cases.
- a6-** Define the concept of hypersensitivity reactions and demonstrate different types of allergic reactions.
- a7-** Recall the mechanisms of allergic diseases (i) Food Allergy, (ii) Eczema, Urticaria and Anaphylaxis and (iii) Allergic Airways Disease.
- a8-** Discuss the physiology of allergic reactions, list the manifestation of allergic diseases and understand the management of allergic diseases.

### **b- Intellectual skills:**

- b1-** Illustrate the basis of immune system and demonstrate the innate immune mechanisms.
- b2-** Illustrate the regulation of immune response and cellular activation in the immune system: signal transduction.
- b3-** Demonstrate primary and secondary immune response to defend the body against microorganisms.
- b4-** Interpret results of different immunological tests in correlation with clinical and laboratory data.
- b5-** Distinguish between protective and hazards defense mechanisms.
- b6-** Illustrate inter-relation between allergic reactions and discuss differential diagnosis based on clinical signs.
- b7-** Illustrate principles and procedures in allergology.
- b8-** Illustrate the manifestations of allergic diseases, evaluate indications of immunotherapy and contra indications as well as route of administrations.

### **c- Professional and practical skills:**

- c1-** Use immunological laboratory techniques for diagnosis of cell mediated and humoral immune response.
- c2-** Use immunological laboratory techniques to differentiate T and B cells.
- c3-** Gain skills in applying different immunodiagnostic and molecular tests.
- c4-** Gain skills to differentiate between different allergic reactions.
- c5-** Gain professional skills to perform various allergic testing procedures used in experimental medicine and clinical settings.
- c6-** Gain experience to take a complete medical history, perform a careful accurate physical examination with a focus on allergy and immunology, gain skills to formulate comprehensive and accurate problem lists, differential diagnoses, recommendations for further investigation and management.

### **d- General and transferable skills:**

- d1-** Communicate through group discussion
- d2-** Work as a part of team

- d3- Develop skills in information technology
- d4- Develop skills for oral presentation
- d5- Develop skills in reading and research
- d6- Develop skills to work safely in a laboratory environment

### 3- Academic standards

#### 3a. External references for standards (Benchmarks)

Generic Academic Reference Standards of the National Authority for Quality Assurance and Accreditation of Education (NAQAAE)  
Adopted at MRI council 12/02/2014 and r- adopted at 15/01/2023

**Last date of Academic Reference standards (ARS) approval by Institute Council:  
15/1/2023**

#### 3b. Comparison of provision to selected external references

##### Comparison between NAQAAE and ARS

NAQAAE	ARS for Diploma Degree in Allergy
<b>A1-Basic facts , theories, of the specialty and related subjects/ fields</b>	A1- Recall the general description of immune system and describe different molecules that share in immunological cellular interaction.
<b>A2-Fundamentals of ethical &amp; legal practice</b>	A2- Describe cell surface ligand interaction and explain antigen processing and presentation.  A3-Define types of T cells, their response to antigens and relationship to B cells.  A4-Discuss the different techniques for serological diagnosis of infectious diseases as hepatitis A, B, C, EBV, TB, immunologic and molecular techniques.
<b>A3 -Quality standards of the practice</b>	A6- Define the concept of hypersensitivity reactions and demonstrate different types of allergic reactions.
<b>A4- Effect of the specialty practice on the environment including rules for environmental conservation</b>	A5-Understand how to present clinical data and recall national and international relevant clinical cases
<b>B1- Determine , analyze &amp; prioritize problems</b>	B1- Illustrate the basis of immune system and demonstrate the innate immune mechanisms
<b>B2- Solve common problems effectively</b>	B2- Illustrate the regulation of immune response and cellular activation in the immune system: signal transduction. Demonstrate primary and secondary immune response to defend the body against microorganisms.
<b>B3- Critically appraise researches and articles</b>	B3- Interpret results of different immunological tests in correlation with clinical and laboratory data
<b>B4-Evaluate professional risks</b>	B4-Distinguish between protective and hazards defense mechanisms
<b>B5- Make decisions to solve professional problems according to</b>	B5- Illustrate how to present clinical data in case presentations

<b>available data</b>	
<b>C1- Practice basic professional skills ( clinical/practical &amp; procedural skills) competently</b>	C1-Use immunological laboratory techniques for diagnosis of cell mediated and humoral immune response and to differentiate T and B cells.
<b>C2- Write reports related to the profession (Patient records, self appraisal/ audit reports etc...)</b>	C2- Gain skills in applying different immunodiagnostic and molecular tests
<b>D1- Communicate effectively using all methods</b>	D1- Communicate through group discussion
<b>D2- Use information technology to improve his/her professional practice</b>	D3 Develop skills in information technology
<b>D3- Practice self appraisal and determines his learning needs</b>	D3 Develop skills in information technology
<b>D4- Use different sources of information to obtain data</b>	D3 Develop skills in information technology
<b>D5- Work in teams D6- Manage time effectively</b>	D2 Work as a part of team
<b>D7-Work as team leader in situations comparable to his work level</b>	D2.Work as a part of team

#### 4- curriculum structure and contents

4.a program duration: 3 semesters (1.5 years)

4.b program structure :

4.b.i- No. of hours per week in each year/semester:

Semester	Core Courses	Elective Courses
	No. of hours	No. of hours
First semester	10 H	
Second semester	6 H	4 H
Third semester	10 H	

<b>4.b.ii- No. of credit hours</b>	<b>Lectures</b>	<b>20</b>	<b>Practical</b>	<b>10</b>	<b>Total</b>	<b>30</b>
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<b>Compulsory</b>	<b>26</b>	<b>Elective</b>	<b>4</b>	<b>Optional</b>	<b>0</b>
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<b>4.b.iii- No. of credit hours of specialized courses</b>	<b>No.</b>	<b>26</b>	<b>%</b>	<b>86.7</b>
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<b>4.b.iv. No. of credit hours of other</b>	<b>No.</b>	<b>4</b>	<b>%</b>	<b>13.3</b>
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**4.b.v- Program levels (in credit-hours system)**  
N/A

## 5- Program Courses

### 5.1- Compulsory (26 CH)

Code No.	Course Title	No. of credit hours	No. of hours /week	
			Lecture	Practical
1708601	Elementary immunology I	2	2	-
1708602	Elementary immunology II	4	3	2
1708603	Cellular Immunology I	4	2	4
1708604	Diagnostic Immunology I	4	2	4
1708606	Interactive clinical Immunology	2	2	-
1708607	Hypersensitivity reactions I	2	1	2
1708608	Allergology I	4	2	4
1708609	Allergology II	4	3	2
<b>Total</b>		<b>26</b>	<b>17</b>	<b>18</b>

## 5.2- Elective II (4 CH)

Code No.	Course Title	No. of credit hours	No. of hours /week	
			Lecture	Practical
1715751	Chest diseases	2	1	2
170655	Skin diseases	2	1	2
170656	ENT diseases	2	1	2
1721720	Medical statistics	2	1	2
1721721	Computer	2	1	2
1708605	General Clinical Immunology I	3	2	2
1708711	Immuno haematology I	2	1	2

## 6- Program admission requirements

Graduate students with a M.B.Ch.B of Medicine

## 7 -Teaching and Learning Methods

Lecture

Practical/Clinical

Brainstorming

Discussion Groups

Problem Solving

Case Study

Training Workshops

Self-Directed Learning

e-learning

Project

## Regulations for progression and program completion

For the progression and completion of the program to obtain the degree of **allergy**, the student must complete 30 credit hours with CGPA of at least C+

### 8 - Evaluation of Students enrolled in the program.

Tool evaluation	Intended learning outcomes being assessed
Written	ILOs a &b
Practical	ILOs c
Oral	ILOs a ,b &d
Semester Work	ILOs b & d

### Evaluation of program intended learning outcomes

Evaluator	Tool	Sample
1- Senior students	Questionnaire	50%
2- Alumni	Questionnaire	Representative sample
3- Stakeholders ( Employers )	Meeting	Representative sample
4- External Evaluator(S) External Examiner (s)	Report	<b>Prof. Dr. Serag Eldin</b> 1/9/2016
5- Other	NA	NA

### Program coordinator:

Name: Prof. Dr.Mohamed Sami Afifi

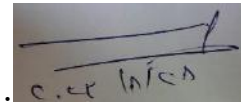
Signature



### Department Head:

Name: Prof. Dr.Hossam Ghoneim

Signature: ...



**Date of Department Council Approval: 28/8/2023**

**Program Aims vs Graduate Attribute matrix**

Generic Graduate Attributes of NAQAAE	Graduate Attributes of diploma of allergy	Program Aims
	By the end of this program, graduate should be able to	
Apply specialized knowledge related to professional skills in the field of specification.	Apply specialized knowledge related to professional skills in the field of immunology	<ol style="list-style-type: none"> <li>1.Acquire basic knowledge of immunology</li> <li>2. Demonstrate <b>knowledge</b> of essential facts, concepts, principles and theories of normal and abnormal immunological function</li> <li>3. Acquire an appropriate functional background of cells, tissues, organs &amp; systems involved in immunologic response.</li> </ol>
Identify professional problems in the field of specification and propose solutions to them.	Identify professional problems in the field of immunology and propose solutions to them.	<ol style="list-style-type: none"> <li>1.Integrate concepts and relate ideas covered in different parts of the degree programme to analyze and solve problems.</li> <li>2.Describe the integration of immunologic functions, which characterize the performance of the human body.</li> </ol>



Master professional skills in the field of specification.	Master professional skills in the field of immunology and recognize cases with allergy	<ol style="list-style-type: none"> <li>1.Be able to perform basic and some advanced procedural / <b>practical skills</b> competently.</li> <li>2. Be able to carry out immunologic <b>investigations</b> and relevant <b>techniques</b>.</li> </ol>
Use appropriate technology means in his/her professional practice of the field of specification.	Use appropriate technology means in his/her professional practice of the field of immunology and use them in diagnosis of allergic diseases.	<ol style="list-style-type: none"> <li>1.Understand basics behind the choice of appropriate tests</li> </ol>
Communicate and lead work teams in a systematic, professional manner.	Communicate and lead work teams in a systematic, professional manner.	<ol style="list-style-type: none"> <li>1.Establish working relationship with colleagues and work effectively as a part of a team</li> <li>2.Communicate effectively through written and oral presentation</li> </ol>
Take professional decisions in case of available information.	Take professional decisions in case of available information that help in disease diagnosis.	<ol style="list-style-type: none"> <li>1.Use information technology to increase his immunology knowledge.</li> </ol>

*Program Aim VS ILOs matrix*









Department Of: Immunology and Allergy

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### Courses vs program ILO Matrix

Course Title	a1	a2	a3	a4	a5	a6	a7	a8	b1	b2	b3	b4	b5	b6	b7	b8	c1	c2	c3	C4	c5	c6	d1	d2	d3	d4	d5	d6
Elementary immunology I 1708601	x								x														X	x	x	x	x	
Ellementary Immunology II 1708602		x								X							x						X	x	x	x	x	x
Cellular immunology II 1708603			x								x							x					X	x	x	x	x	x
Diagnostic Immunology I <b>1708604</b>				x								x							x				X	x	x	x	x	X
<b>Interactive immunology</b> <b>1708606</b>					X								X										X	x	x	x	x	
Hypersensitivity reactions I 1708607						X								x						x			X	x	x	x	x	X
<b>Allergology I</b> <b>(1708608)</b>							x								x						x		X	x	x	x	x	X
<b>Allergology II</b> <b>(1708609)</b>								x								X						x						X







### Teaching and Learning Methods Vs Courses Matrix

**Degree: Diploma in Allergy      Code:1208600**

	<b>1708601</b>	<b>1708602</b>	<b>1708603</b>	<b>1708604</b>	<b>1708606</b>	<b>1708607</b>	<b>1708608</b>	<b>1708609</b>
Lecture	X	x	X	X	x	X	X	X
Practical/Clinical		x	X	X		X	X	X
Brainstorming	X	x	X	X	x	X	X	X
Discussion Groups	X	x	X	x	x	X	X	X
Problem Solving	X	x	X	x	x	X	X	X
Case Study							X	X
Self-Directed Learning	x	x	X	x	x	X	X	X
e-learning	x		x		x		X	x
Project	x	x	X	x	x	X	x	X

*Signature*