Al Azhar University
Faculty of Medicine
Department of Pediatrics
Undergraduate Program
Course Specification

PEDIATRICS MASTER DEGREE(MSC) PROGRAM AND COURSE SPECIFICATION 2015 - 2016

Program Specification Master Degree of Pediatrics

A-Basic information:

1. **Program Title: Pediatric Master Degree**
2. **Type of The Program: Single program**
3. **Code of The Program: 700-Pedia-Ms**
4. **Department Responsible For The Program: Pediatric Department Faculty Of Medicine – Al- Azhar University**
5. **Program Academic Director: Prof. Mosallam Nasser (head of the department).**
6. **Coordinator Of The Program: Prof. Sherif Reda**
7. **Date Of Approval By Pediatric Department Council, Al-azhar University: / /2015**

B-Specialized information:

1- General Objective Of The Program:

By the end of the course, the postgraduate students should be able to:

1/1. To provide competencies, knowledge and skills pertaining to pediatrics that are required to be practiced in the community and at all levels of health care system.
2/2. To make the candidate familiar with the fields of Pediatrics subspecialties to enable them to participate as team members in the care of patients with acute, chronic and complex disorders.
1/3. To recognize the health needs of infants, children and adolescents and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;
1/4. To be aware of the contemporary advances and developments in medical sciences as related to child health
1/5. To continue to strive for excellence by continuing medical education throughout his other professional career.
1/6. To enable the development and application of appropriate professional attitudes, communication and problem solving skills.
1/7. Be competent in handling social and ethical issues related to the patient and his/her family
1/8. To develop competence in basic concepts of research methodology and epidemiology
1/9. To be able to take the lead and accept leadership from other members of the multi-disciplinary team
1/10. To play the assigned role in the implementation of national health programs, effectively and responsibly.

2-Intended Learning Outcomes From The Program:

2/ 1 Knowledge And Understanding:

By the end of the course, the postgraduate students should be able to:

2/1.1. Identify the importance of child health in the context of the health priority of the country.
2/1.2. Mention basic and update knowledge as regards child development and preventive pediatrics.
2/1.3. Demonstrate and understanding the impact of congenital and inherited diseases on children and families.
2/1.4. Determine the nutritional requirements and the most common nutritional disorders affecting infants and children, and describe appropriate management for disorders.
2/1.5. Identify the unique features of neonatal immunity and pathogenesis of perinatal/neonatal infection.
2/1.6. Describe the causes, pathogenesis and clinical feature of the common neonatal and Pediatric problems.
2/1.7. Identify appropriate diagnostic tools and therapeutic lines for common neonatal and Pediatric problems.
2/1.8. Cite the management priorities for different neonatal and Pediatric life threatening conditions.
2/1.9. Differentiate different infectious disorders in children together with update management outline.
2/1.10.Identify the most important behavioral and social issues during childhood and adolescence.
2/1.11. Identify basics of ethics, medico legal aspects of health problems, malpractice and common errors.
2/1.12. Describe appropriate diagnosis and management of chronic problems that require tertiary care
2/1.13. Demonstrate the basics of genetics and its influence on diseases.
2/1.14. Mention physiologic and pathologic backgrounds of different pediatric problems and how to use statistics in medical practice and researches.

2/ 2 Skills:

2/2/1 . Intellectual Skills:

By the end of the course, the postgraduate students should be able to:

2/2/1.1Make decisions regarding common clinical situations using appropriate Problem solving skills.
2/2/1.2. Construct appropriate management strategies for patients with common Diseases, both acute and chronic, including medical, psychiatric, and Surgical conditions.
2/2/1.3.Integrate the results of history, physical and laboratory test findings into aMeaningful diagnostic formulation.
2/2/1.4. Retrieve, analyze, and evaluate relevant and current data from literature, Using information technologies and library resources.
2/2/1.5. Recognize and cope with uncertainty that is unavoidable in thePractice of medicine by accepting and reacting to uncertain situation through proper counseling, consultation and referral.
2/2/1.6. Classify factors that place individuals at risk for disease or injury, to Determine strategies for appropriate response.
2/2/1.7. Involvement into research and scientific methods through:
A- Formulation of research questions that is pertinent to medicine.
B- Recognition of the importance of precision in collecting, analyzing and interpreting medical data.
C- Integrate basic biomedical science with clinical care.

2/2/2 Professional and Practical Skills:

By the end of the course, the postgraduate students should be able to:

2/2/2.1 Understand and respect the different cultural beliefs and values in the community they serve.
2/2/2.2. Take focused history according to the child's complaint.

2/2/2.3.Perform clinical examination of different systems orderly, fluently and competently and be skillful in clinical sign detection.
2/2/2.4.Recognize criteria of life threatening conditions in children and to initiate appropriate management.
2/2/2.5.Decide which patients may be managed at general department and which require critical care.
2/2/2.6.Provide patient care that is culturally effective and developmentally and age appropriate.
2/2/2.7.Perform the techniques of neonatal and pediatric resuscitation and demonstrate competency in basic and advanced life - support measures.
2/2/2.8. Perform efficiently different invasive maneuvers as endotracheal, chest tubes, intraosseous, umbilical and central lines.
2/2/2.9. Interpret different diagnostic tools such as radiological, ECG, and other laboratory investigations and how to implement these data in the diagnosis, management and follow up of cases.
2/2/2.10.Perform proper counseling of patients and families.
2/2/2.11.Function as a productive member of a team engaged in health care, research and education.

2/2/3 General Skills:

By the end of the course, the postgraduate students should be able to:

2/2/3.1. Be prepared for the lifelong learning needs of the medical profession.
2/2/3.2. Use information and communication technology effectively in the field of medical practice.
2/2/3.4.Retrieve, manage, and manipulate information by all means, including electronic means.
2/2/3.5.Present information clearly in written, electronic and oral forms.
2/2/3.6. Communicate ideas and arguments effectively.
2/2/3.7. Analyze and use numerical data including the use of simple statistical methods.
2/2/3.8. Manage time and resources effectively and set priorities.
2/2/3.9. Work efficiently within the health care team.
2/2/3.10. Solve problems related to patients, work management and among colleagues.
2/2/3.11. Cope with changing work environment.
2/2/3.12.Apply safety and infection control measures during practice.
2/2/3.13. Evaluate their work and that of others using constructive feedback.

3. Academic standards of the program:

References "benchmark" Academic Reference Standards of NQAAE.

4. Structure and content of the program:

A- **Programme duration**: 24 months (Maximum 4 years).

- **Part (1): (30% of the final marks)**

- During the first year of the program.
- Studying of basic courses
- Exam is allowed after 8 months from application.

- **Thesis or Eassy : (No Marks)**

- Registration for essay or thesis is allowed after passing of first part.
- Discussion and acceptance is not done before 6 months of registration.

- **Part (2): (7 0% of the final marks)**

- Program related pediatric ILOs.
- Minimum duration is 2 years from registration of master degree.

B- Programme structure:

Total number of hours:

- First part:
- Second part:
  - Theoretical: 412 hours.
  - Clinical 1236 hours.
  - Total 1648 hours.

C- Program Time Schedule:

Lectures (4 hrs / week):

- 4 hours / week X 103 week = 412 hours
- (2 hrs Al-Hussein hosp. on Saturday), the meeting Hall, Pediatric department, 5th floor.
- (2 hrs Bab Al-Shaerya hosp. on Wednesday), the meeting Hall, Pediatric department, 6th floor.

Practical/Clinical (12 hrs / week):

- 16 hours / week X 103 week = 1648 hours, general units clinical meeting day of Pediatric department inpatient wards.

D- Curriculum courses:

● First Year:

1- Medical knowledge:

- Basic medical since courses (by basic medical sinces departments at faculty of medicine AL-Azhar university , Cairo)
- Genetics , growth and development pediatric issues (by pediatric department).

2- Various Clinical, Professional and General Skills:

- In pediatric inpatient, outpatient, PICU and NICU departments.

● Second Year:

1- M edical knowledge: in Pediatric courses

2- Various Clinical, Professional and General Skills: are continued in the second year.

3- Research Eassy or Thesis

- Selection of the research is guided by Al-Azhar university and faculty of medicine research plan.
- Selection of supervisors is under approval by pediatric department council.

5. Program courses

(more details at course specifications)

Courses		Teaching hours		
		Lectures	Clinical	Total
First Part:				
Course (1)	Genetics, growth and development.			
Course (2)	Physiology	Regulated by basic medical sciences departments		
Course (3)	Biochemistry			
Course (4)	Microbiology			
Course (5)	Pharmacology			
Course (6)	Pathology			
Course (7)	Clinical Pathology			
Course (8)	Public health, preventive medicine and statistics			
Course (9)	Embryology			

Second Part:				
Module (1)	**Growth and development**			
Module (2)	**Behavioral & psychiatric problems**			
Module (3)	**Nutrition & Infant Feeding**			
Module (4)	**Human Genetics**			
Module (5)	**Neonatology**			
Module (6)	**Immunology**			
Module (7)	**The skin and Allergic diseases**			
Module (8)	**Rheumatic diseases of childhood**			
Module (9)	**Infectious diseases & Preventive Pediatric (vaccination)**			
Module (10)	**The Digestive system / Hepatobiliary system**			
Module (11)	**The Respiratory system**			
Module (12)	**The Cardiovascular system**			
Module (13)	**Diseases of the blood / Cancer & benign tumors**			
Module (14)	**Nephrology & Urology disorders in infancy & childhood**			
Module (15)	**Endocrine system/genetic disorders of Metabolism**			
Module (16)	**Nervous system & Neuromuscular disorders**			
Module (17)	**Pediatric emergencies, environmental health hazards & social medicine**			
Module (18)	**Adolescent medicine & Gynecological problems of childhood**			

Regulations For Progression And Program Completion:

1- Attendance Criteria: minimum acceptance attendance in each course is 70 %.

2- Log book should fulfill and signed by coordinator of the Master degree and Head of the department.

3- Spent at least one year attached to the department attending the lectures, clinical rounds (6 units), the scientific days, the department conference day, the round tables and the scientific meetings.

6. Program admission requirements:

- Hold a bachelor's degree in medicine and surgery from one University of the Arab Republic of Egyptor equivalent degree from another scientific institute recognized from Al-Azhar University.
- Has spent postgraduate one year clinical training program as a House officer in educational or governmental hospitals or its equivalent for completion the bachelor degree.
- Got the license of medical profession practice from the medical syndicate.
- Has spent at least one year as a resident in Pediatrics department in educational or governmental hospitals
- Got at least the rating Excellent in the final exam of graduation and also the rating Excellent in the Pediatric study course.
- Certificate of good conduct from the Syndicate he or she belongs.

7. Assessment of the program:

a- METHODS OF ASSESSMENT:

Method	What to measure of ILOs
1-Written Exam	Knowledge and understanding/Intellectual skills
2-Oral Exam	Knowledge and understanding/Intellectual skills/ General skills.
3- MCQ Exam	Knowledge and understanding/Intellectual skills/ General skills.
4-Clinical Exam	Professional skills/ General skills/ Intellectual skills/ knowledge& understanding.
5-OSCE	Professional skills/ General skills/ Intellectual skills/ knowledge& understanding.

b- WEIGHTS OF ASSESSMENT:

Courses		Marks			
		Written	Oral	Clinical	Total
First Part:		Total = 600 Marks			
Course (1)	Genetics, growth and development.	40	40	-------	80
Course (2)	Physiology				
Course (3)	Biochemistry				
Course (4)	Microbiology				
Course (5)	Pharmacology				
Course (6)	Pathology				
Course (7)	Clinical Pathology				
Course (8)	Public health, preventive medicine and statistics				
Course (9)	Embryology				
Second Part:		Total = 1400 Marks			
Module (1)	Growth and development				
Module (2)	Behavioral & psychiatric problems				
Module (3)	Nutrition & Infant Feeding				
Module (4)	Human Genetics				
Module (5)	Neonatology				
Module (6)	Immunology				
Module (7)	The skin and Allergic diseases				
Module (8)	Rheumatic diseases of childhood				
Module (9)	Infectious diseases & Preventive Pediatric (vaccination)				
Module (10)	The Digestive system / Hepatobiliary system				
Module (11)	The Respiratory system				
Module (12)	The Cardiovascular system				
Module (13)	Diseases of the blood / Cancer & benign tumors				
Module (14)	Nephrology & Urology disorders in infancy & childhood				
Module (15)	Endocrine system/genetic disorders of Metabolism				
Module (16)	Nervous system & Neuromuscular disorders				
Module (17)	Pediatric emergencies, environmental health hazards & social medicine				
Module (18)	Adolescent medicine & Gynecological problems of childhood				
Total Marks of Master Degree		1200 marks			

C-TIMING AND SYSTEM OF EXAMINATION:

- **FIRST PART:**

- Timing: End of Academic Year (April and September yearly).

- System

- Genetics, growth and development: Three hours Written Examination + oral examination.
- Physiology, pharmacology and biochemistry: Three hours Written Examination + oral examination.
- Microbiology, pathology and embryology**:** Three hours Written Examination + oral examination.
- Public health, preventive medicine and statistics: Three hours Written Examination + oral examination.

- **SECOND PART:**

- Timing: April and September yearly.

- System: (specialized pediatric Course)

- Written Exam: three papers, Three hours for each paper in three separate days.
- Oral Examination: Three sessions
- Clinical Examination: - One Long case - Three short cases

D- EXAMINATION COMMITTEE:

- Prof. Mosallam Nasser
- Prof.
- Prof.

8. Methods of evaluation of the program:

Evaluator	Method	Sample
1- Graduates	Questionnaire	See samples
2-External evaluator or Examiner	Report	External Evaluator Report
3- Quality assurance and accreditation unite	Report Visits	

Head of the department **Coordinator of the program**

Prof. Mosallam Nasser **Prof. Sherif Reda**

Date / /201

Course Specification Master Degree of Pediatrics

I- FIRST PART

A-COURSE (1): **Genetics, Growth and Development.**

A. Data of the course

1. **Course Title**: Genetics, Growth and Development.
2. **Code of Course**: ??????????????????
3. **Speciality**: pediatrics
4. **Department responsible of the course:** Pediatric Department Faculty Of Medicine – Al- Azhar University
5. **Course Director: Prof**. Mosallam Nasser (head of the department).
6. **Coordinator Of The Course: Prof**. Sherif Reda
7. **Date Of Approval By Pediatric Department Council, Al-azhar University**: / /2015

B. Specialized information:

1-General Objective of The course:

- To provide competencies, knowledge and skills pertaining to genetics, child Growth and development.

2-Intended Learning Outcomes of The course:

2/ 1 Knowledge And Understanding:

By the end of the course, the postgraduate students should be able to:

a- Describe principles of different modes of inheritances, chromosomal basis of hereditary, genetic counseling, detection of carriers of genetic diseases, knowing of method of prenatal diagnosis of genetic diseases, mutation , teratogenicity, common genetic diseases, understanding recombinant DNA technology and principles of gene therapy and diagnosis and treatment of different genetic diseases.

b- Understand the basics of child growth including stages of growth, factors affecting and patterns of growth,, growth charts and assessment of growth.

c- Describe fields , factors affecting and different millstones of development, assessment, and warning signs of poor development at deferent stages of development.

2/ 2 Skills:

A- Intellectual Skills:

By the end of the course, the postgraduate students should be able to

1- Correlates between scientific principles and history and clinical for diagnosis of disorders of growth , development and genetic diseases.

2- Choosing the most diagnostic test for different genetic diseases

B- Professional and Practical Skills:

By the end of the course, the postgraduate students should be able to perform:

1- Structured targeted history taking skills

2- Proper clinical examination of different systems orderly, fluently and competently and be skillful in clinical sign detection.

C- General Skills:

By the end of the course, the postgraduate students should be able to

1- Solve problems related to patients, work management and among colleagues
2- Perform proper counseling of patients and families.
3- Communicate ideas and arguments effectively.

C-Methods of Teaching

1- Lectures 2-Tutorials 3-Clinical Meetings 4-Seminars

D-Methods of Assessment of The Course

1- **TIME OF ASSESMENT**
- April and November, yearly .

2- **METHODS OF ASSESSMENT**
- written examination
- oral examination

3- **Examination commete**:
- **Prof**
-
-

4- **Marks**: 80 marks (40 marks oral exam and 40 marks written exam).

E- References of the Course

1- Departmental book
2- Elmougi basic pediatrics (2012)
3- Nelsons textbook of pediatrics (2015)

Head of the department **Coordinator of the program**

Prof. Mosallam Nasser **Prof. Sherif Reda**

Date / /201

B-COURSEs (2-9): Basic Medical Sciences

(Regulated by departments of basic medical sciences- Alazhar university faculty of medicine)

II- SECOND PART

(Course Specification Pediatrics Master Degree)

1- Data of the course:

Code of the course: 700-Pedia-Ms	**Title of the course:** Master degree Pediatrics 2nd part	**Duration:** 24 months
Specialty: Pediatrics	Number of teaching units: 6 units	Total : 2062 hours Lectures: **4** hours/ week =414 2062 hours Clinical: **16** hours/week. =16482062 hours
Department Responsible : Department of pediatrics		

B-Specialized information:

1-GENERAL OBJECTIVE OF THE PROGRAM:

1/1. To provide competencies, knowledge and skills pertaining to pediatrics that is required to be practiced in the community and at all levels of health care system.

2/2. To make the candidate familiar with the fields of Pediatrics subspecialties to enable them to participate as team members in the care of patients with acute, chronic and complex disorders.

1/3. To recognizes the health needs of infants, children and adolescents and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;

1/4. To be aware of the contemporary advances and developments in medical sciences as related to child health

1/5. To continue to strive for excellence by continuing medical education throughout his other professional career.

1/6. To enable the development and application of appropriate professional attitudes, communication and problem solving skills.

1/7. Be competent in handling social and ethical issues related to the patient and his/her family

1/8. To develop competence in basic concepts of research methodology and epidemiology

1/9. To be Able to take the lead and accept leadership from other members of the multi-disciplinary team

1/10. To play the assigned role in the implementation of national health programs, effectively and responsibly.

2-INTENDED LEARNING OUTCOMES FROM THE PROGRAM:

A- Knowledge and understanding:

A.1. Identify the importance of child health in the context of the health priority of the country.

A.2. Mention basic and update knowledge as regards child development and preventive pediatrics.

A.3. Demonstrate and understanding the impact of congenital and inherited diseases on children and their families.

A.4. Determine the nutritional requirements and the most common nutritional disorders affecting infants and children, and describe appropriate management for disorders.

A.5. Identify the unique features of neonatal immunity and pathogenesis of perinatal/ neonatal infection.

A.6. Describe the causes , pathogenesis and clinical feature of the common neonatal and Pediatric problems.

A.7. Identify the appropriate diagnostic tools and therapeutic lines for the common neonatal and Pediatric problems.

A.8. Cite the management priorities for different neonatal and Pediatric life threatening conditions.

A.9. Differentiate different infectious disorders in children together with update management outline.

A.10. Identify the most important behavioral and social issues during childhood and adolescence.

A.11. Identify basics of ethics, medico legal aspects of health problems, malpractice and common medical errors.

A.12. Describe appropriate diagnosis and management of chronic problems that require tertiary care

A.13. Demonstrate the basics of genetics and its influence on diseases.

A.14. Mention physiologic and pathologic backgrounds of different pediatric problems and how to use statistics in medical practice and researches.

B- Intellectual Skills:

B.1. Make decisions regarding common clinical situations using appropriate Problem solving skills.

B.2. Construct appropriate management strategies for patients with common Diseases, both acute and chronic, including medical, psychiatric, and Surgical conditions.

B.3. Integrate the results of history, physical and laboratory test findings into a Meaningful diagnostic formulation.

B.4. Retrieve, analyze, and evaluate relevant and current data from literature, Using information technologies and library resources.

B.5. Recognize and cope with uncertainty that is unavoidable in the Practice of medicine by accepting and reacting to uncertain situation through proper counseling, consultation and referral.

B.6. Classify factors that place individuals at risk for disease or injury, to Determine strategies for appropriate response.

B.7. Involvement into research and scientific methods through:

-Formulation of research questions that is pertinent to medicine.

- Recognition of the importance of precision in collecting, analyzing and interpreting medical data.
- Integrate basic biomedical science with clinical care.

C- Professional Skills:

By the end of the course, the postgraduate students should be able to:

C.1 Understand and respect the different cultural beliefs and values in the community they serve.

C.2. Take focused history according to the child's complaint.

C.3. Perform clinical examination of different systems orderly, fluently and competently and be skillful in clinical sign detection.

C.4. Recognize criteria of life threatening conditions in children and to initiate appropriate management.

C.5. Decide which patients may be managed on a general in patient service and which require critical care.

C.6. Provide family-centered patient care that is culturally effective and developmentally and age appropriate.

C.7. Perform the techniques of neonatal and pediatric resuscitation and demonstrate competency in basic and advanced life - support measures.

C.8. Perform efficiently different invasive maneuvers as endotracheal, chest tubes, intraosseous, umbilical and central lines.

C.9. Interpret different diagnostic tools such as radiological, ECG, and other laboratory investigations and how to implement these data in the diagnosis, management and follow up of cases.

C.10. Perform proper counseling of patients and families.

C.11. Function as a productive member of a team engaged in health care, research and education.

D- General Skills:

By the end of the course, the postgraduate students should be able to

D.1. Be prepared for the lifelong learning needs of the medical profession.

D.2. Use information and communication technology effectively in the field of medical practice.

D.4. Retrieve, manage, and manipulate information by all means, including electronic means.

D.5. Present information clearly in written, electronic and oral forms.

D.6. Communicate ideas and arguments effectively.

D.7. Analyze and use numerical data including the use of simple statistical methods.

D.8. Manage time and resources effectively and set priorities.

D.9. Work efficiently within the health care team.

D.10. Solve problems related to patients, work management and among colleagues.

D.11. Cope with changing work environment.

D.12. Apply safety and infection control measures during practice.

D.13. Evaluate their work and that of others using constructive feedback.

3-COURSE CONTENTS:

TOPICS	weight
1. Growth and development	**5**
2. Behavioral & psychiatric problems	**2**
3. Nutrition & Infant Feeding	**10**
4. Human Genetics	**2**
5. Neonatology	**10**
6. Immunology	**2**
7. The skin and Allergic diseases	**3**
8. Rheumatic diseases of childhood	**3**
9. Infectious diseases & Preventive Pediatric (vaccination)	**10**
10. The Digestive system / Hepatobiliary system	**7**
11. The Respiratory system	**5**
12. The Cardiovascular system	**7**
13. Diseases of the blood / Cancer & benign tumors	**7**
14. Nephrology & Urology disorders in infancy & childhood	**5**
15. Endocrine system/genetic disorders of Metabolism	**7**
16. Nervous system & Neuromuscular disorders	**7**
17. Pediatric emergencies, environmental health hazards & social medicine	**5**
18. Adolescent medicine & Gynecological problems of childhood	**3**

4-Methods of teaching:

1-Lectures 2-Clinical meetings 3- tutorials 4-Scientific day monthly

5-Students evaluation and assessment:

A- METHOD OF ASSESSMENT:

1- Written Exam (MCQ, Short essay, problem solving)
2- Clinical Exam (Clinical round, OSCE)
3- Oral Examination

B- TIME OF ASSESSMENT

1- Final year Exam: 2nd part pediatric Master: November and April
2- Continuous assessment through formative evaluation in the log book

C- EXAMINATION SYSTEM

- **Timing:** April and September yearly.
- **System: (specialized pediatric Course)**
  - Written Exam: three papers, Three hours for each paper in three separate days.
  - Oral Examination: Three sessions
  - Clinical Examination: - One Long case - Three short cases

D- EXAMINATION COMMITTEE:

- Prof. Mosallam Nasser
- Prof.

E- MARKS(1400 marks for all of the second part):

- **Written Exam:** Three papers; marks for each paper (total: marks) .
- **Oral Examination:** Three sessions; marks for each exam (total: marks) .
- **Clinical Examination:**
  - One Long case (marks) - Three short cases: marks for each

6- Evaluation of the course:

Evaluator	Method
External evaluator	Report
Pediatric department staff	Discussion by pediatric council
Senior candidates	Questionnaire

7- References:

- Departmental book 2014/2015 3rd edition
- Nelson textbook 20th edition 2015
- Manual of neonatal care 7th edition 2014

Head of the department **Course Coordinator**

Prof. Dr. Mosallam Nasser **Prof. Dr. Sherif Reda**

Date: / / 2016