

Program specification of master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

A- Basic Information

1. Program Title: Master degree in adolescent medicine
2. Program Type: single; double qualification
3. Faculty: Faculty of Medicine
4. Department : Pediatrics
5. Coordinator: Prof. Dr. Mohamad Abdel-aal
6. Assistant coordinator: Prof. Moustafa A. Abdel-lah
7. External Evaluator(s): Prof. Dr.Mamdouh Wahba
8. Last date of program specifications approval: Date of specification approval
Faculty council No. "317", decree No. "1533" dated 17/12/2018.

B- Professional Information

1. Program Aims:

The aim of this program is to provide the postgraduate with the medical knowledge and skills essential for safe practice of adolescent medicine and necessary to gain further training and practice in this field; through providing:

- 1- Scientific knowledge essential for practice of adolescent medicine according to the international standards.
- 2- Skills necessary for proper diagnosis and management of patients in the field of adolescent medicine including diagnostic, problem solving and decision making.
- 3- Ethical principles related to the practice in this sensitive specialty.
- 4- Active participation in community needs assessment and problems solving.
- 5- Maintenance of learning abilities necessary for continuous medical education.
- 6- Maintenance of research interest and abilities.

2. Attributes of the student:

1. The application of the analytical method and used in the field of adolescent medicine
2. The application of specialized knowledge and integrate it with the relevant knowledge in practice.
3. Be aware of the problems and has modern visions in the field of adolescent medicine
4. Identify problems in the field of adolescent medicine and find solutions to them.
5. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
6. Communicate effectively and the ability to lead work teams.
7. Decision-making in his professional contexts.
8. To employ and preserve the available resources to achieve the highest benefit.
9. Awareness of his role in the community development and preservation of the environment at the lights of both international and regional variables.
10. Reflects the commitment to act with integrity and credibility, responsibility and commitment to rules of the profession.



Program specification of master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

A- Basic Information

1. Program Title: Master degree in adolescent medicine
2. Program Type: single; double qualification
3. Faculty: Faculty of Medicine
4. Department : Pediatrics
5. Coordinator: Prof. Dr. Mohamad Abdel-aal
6. Assistant coordinator: Prof. Moustafa A. Abdel-lah
7. External Evaluator(s): Prof. Dr.Mamdouh Wahba
8. Last date of program specifications approval: Date of specification approval Faculty council No. "317", decree No. "1533" dated 17/12/2018.

B- Professional Information

1. Program Aims:

The aim of this program is to provide the postgraduate with the medical knowledge and skills essential for safe practice of adolescent medicine and necessary to gain further training and practice in this field; through providing:

- 1- Scientific knowledge essential for practice of adolescent medicine according to the international standards.
- 2- Skills necessary for proper diagnosis and management of patients in the field of adolescent medicine including diagnostic, problem solving and decision making.
- 3- Ethical principles related to the practice in this sensitive specialty.
- 4- Active participation in community needs assessment and problems solving.
- 5- Maintenance of learning abilities necessary for continuous medical education.
- 6- Maintenance of research interest and abilities.

2. Attributes of the student:

1. The application of the analytical method and used in the field of adolescent medicine
2. The application of specialized knowledge and integrate it with the relevant knowledge in practice.
3. Be aware of the problems and has modern visions in the field of adolescent medicine
4. Identify problems in the field of adolescent medicine and find solutions to them.
5. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
6. Communicate effectively and the ability to lead work teams.
7. Decision-making in his professional contexts.
8. To employ and preserve the available resources to achieve the highest benefit.
9. Awareness of his role in the community development and preservation of the environment at the lights of both international and regional variables.
10. Reflects the commitment to act with integrity and credibility, responsibility and commitment to rules of the profession.

11. Academic and professional self development and be capable of continuous learning.

3. Program Intended Learning Outcomes (ILOs)

a) Knowledge and understanding.

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Recognize normal variations and pathological abnormalities in growth and development of adolescents.
- a2. Diagnose mental and cognitive problems and explain the principles of their management.
- a3. Identify illnesses and issues related to sexuality and reproductive health.
- a4. Diagnose and plan the treatment of sexually transmitted diseases.
- a5. Predict and identify the medical & psychosocial problems associated with teenage pregnancies and single mothers and plan how to deal with these problems.
- a6. Guide adolescents and their parents in dealing with the social problems.
- a7. Anticipate the effects of chronic illnesses on the life of adolescents and plan their management.
- a8. Advise the adolescents and their parents about immunization.
- a9. Advise adolescents about the nutrition requirements and prevention and treatment of obesity and other nutritional disorders.
- a10. Diagnose and treat common dermatological conditions seen in adolescents.
- a11. Advise how to minimize the consequences of high risk behaviors.

b) Intellectual skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- b1. Carry out practical procedures both for diagnosis and management purposes.
- b2. Make evident in his/her work that an adolescent's health is influenced by both family and community practices.

c) Professional and practical skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- c1. Perform a complete physical examination of an adolescent.

d) General and Transferable Skills

By the end of the study of Master program in Obstetrics & Gynecology the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 1. take medical and psychosocial history especially in relation to sexuality, drugs, depression and suicide.
 2. explain the nature of common illnesses and options for their treatment to both adolescents and their parents/guardians.
 3. take consent for common diagnostic and therapeutic procedures.
 4. break bad news.

5. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
6. involve colleagues and other related health care providers in the management of adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.
- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
- d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
- d5. Conduct researches in adolescent's health.

Academic Standards

Sohag Faculty of medicine adopted the general National Academic Reference Standards (NARS) provided by the national authorities for quality assurance and accreditation of education (NAQAAE) for postgraduate programs. This was revised by external evaluator and approved by the faculty council decree NO. 6854, in its session NO. 177 Dated: 18/5/2009. Based on these NARS; Academic Reference Standards (ARS) were suggested for this program. This ARS were approved by the Faculty council No. 7528 in its session NO. 191 Dated:15/3/2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its session No.60. dated 26/12/2011.

4. Curriculum Structure and Contents

4.a- Programme duration 6 semesters (3 years)

It is a double qualification program (i.e. should be preceded by obtaining master degree in pediatrics, obstetrics& gynecology, internal medicine, family medicine, public health, dermatology, psychiatry or orthopedics).

4.b- Program structure

b.i- No. of hours per week:

Course	hours /week		
	Lectures	Practical/ Clinical	Total
<u>First Part*:</u>			
Anatomy & Embryology	1.5	0.5	2
Physiology	2	----	2
Pharmacology	1	----	1
Biochemistry	1	----	1
Pathology	1	1	2
Clinical pathology	1	1	2
Microbiology	1	----	1
Parasitology	1		1
Research Methodology	1	----	1
Medical biostatistics & Epidemiology	1	1	2
<u>Second Part:</u>			
Growth & Development	0.66	--	0.66

Public Health (Health screening)	0.67	0.67	1.34
Obstetrics and Gynecology	0.67	0.67	1.34
Orthopedics& sport medicine	0.5	0.67	1.17
Psychiatry	0.33	0.33	0.66
Nutrition	0.4	0.67	1.07
Dermatology and veneriology Problems	0.33	0.67	1.00
Common medical problems	0.33	0.18	0.51
Social aspects	0.67	0.67	1.34
Ethics	0.33	0.18	0.51
Interviewing and Communications	0.33	0.18	0.51
Impact	0.33	0.33	0.66

* The courses obtained in the 1st part of the preceding master degree will not re-studied in the 1st part for this master degree:

code	Item	No	%
b.i	Total credit hours	Compulsory	50
		Elective	
		Optional	
b.iii	credit hours of basic sciences courses	10	20
b.iv	credit hours of courses of social sciences and humanities		
b.v	credit hours of specialized courses:	24	48
b.vi	credit hours of other course	0	0
b.vii	Practical/Field Training	0	0
b.viii	Program Levels (in credit-hours system):		
	Level 1: 1 st part	10	20
	Level 2: 2 nd Part	24	48
	Level 3: Thesis	6	12

5. **Program Courses** --- courses are compulsory.

5.1- Level of Program.

Semester...1.....

First part

a. Compulsory

Course Title	Total No. of Credit hours	No. of hours /week		Program ILOs Covered (By No.)
		Lect	Lab./ clinical	
Anatomy & Embryology	2	1.5	0.5	a1, a7, b1
Physiology	2	2	----	a1
Pharmacology	1	1	----	a4
Biochemistry	1	1	----	a1, a9
Pathology	2	1	1	a1

Clinical pathology	2	1	1	b1
Microbiology	1	1	----	a4, a8, b1
Parasitology	1	1		a4, a10
Research Methodology	1	1	----	d5
Medical biostatistics & Epidemiology	2	1	1	b1

Second part
a. Compulsory

Module Title	Total No. of Credit hours	No. of hours /week		Program ILOs Covered (By No.)
		Lect.	Lab.	
Growth & Development	3	0.67	0.67	a1, c1, d1, d2, d3, d4
Public Health (Health screening)	3	0.67	0.67	a8, d1, d2, d3, d4
Obstetrics and Gynecology	2.5	0.5	0.67	a3, c1, d1, d2, d3, d4
Orthopedics & sport medicine	1.5	0.33	0.33	c1, d1, d2, d3, d4
Psychiatry	2.25	0.4	0.67	a2, a5, a11, c1, d1, d2, d3, d4
Nutrition	2	0.33	0.67	a9, d1, d2, d3, d4
Dermatology and veneriology Problems	1.25	0.33	0.18	a4, a10, c1, d1, d2, d3, d4
Common medical problems	3	0.67	0.67	a5, a7, c1, d1, d2, d3, d4
Social aspects	1.25	0.33	0.18	a5, a6, d1, d2, d3, d4
Ethics	1.25	0.33	0.18	, d1, d2, d3, d4
Interviewing and Communications	1.5	0.33	0.33	b2, d1, d1, d2, d3, d4
Impact	1.5	0.33	0.33	d1, d2, d3, d4

6. Program Admission Requirements

I- General Requirements.

- Candidate should have either:
 - MBBch degree from any Egyptian Faculty of Medicine or
 - Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
- Candidate should pass the house office training year.
- Those who are not university hospital residents should pass a training for at least 12 months in one of the known hospitals.
- Launched by high universities council decree in its session held on 26/9/2013, and added to follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (44), dated 6/1/2010.

II- Specific Requirements.

- Candidates should have at least master degree in one of the following specialties: pediatrics, Obstetrics & Gynecology, internal Medicine, family medicine, public health, dermatology, psychiatry or orthopedics.

2. The courses obtained in the 1st part of the preceding master degree will not re-studied in the 1st part for this master degree

7. Regulations for Progression and Program Completion

Duration of program is 50 credit hours (≥ 4 semesters ≥ 3 years), starting from registration till 2nd part exam; divided to:

First Part: (15 Credit hours ≥ 6 months ≥ 1 semester):

- Courses obtained during the preceding master degree will not be taken again.
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in October — 2nd in April.
- At least 50% of the written exam is needed to pass in each course.
- For the student to pass the first part exam, a score of at least 60% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only for the next time only, and if re-fail, should register for the course from the start.

Thesis/systematic (6 Credit hours ≥ 6 months=1 semester):

- That of the preceding master degree .

Second Part: (24 Credit hours ≥ 18 months= 3 semesters):

- Program related specialized science of adolescent medicine modules.
- Module (s) taken during the preceding master degree will not be taken again.
- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the 2nd part courses.
- The obtained training in the preceding master degree should be considered; for either:
 - University hospital residents: 36 months residency.
 - Residents in other places: Completed 36 months residency; 12 months of them training in the university hospital.
- The students should pass the 1st part before asking for examination in the 2nd part.
- Fulfillment of the requirements in each module as described in the template and registered in the log book (5 Credit hours; with obtaining $\geq 75\%$ of its mark, activities attended in the preceding master degree should be considered) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; as following:

Activity		Hrs
Grand rounds	اجتماع علمى موسع	6
Training courses	دورات تدريبية	12/ day
Conference attendance	حضور مؤتمرات علمية داخلي خارجة	12/day 18/day
Thesis discussion	حضور مناقشات رسائل	6
Workshops	حضور ورش عمل	12/day

Journal club	ندوة الدوريات الحديثة	٦
Seminars	لقاء علمي موسع	٦
Morbidity and Mortality conference	ندوة تحليل المخاطر المرضية أو الوفاة	٦
Self education program	برنامج التعليم الذاتي	٦

- Two sets of exams: 1st in October - 2nd in April.
- At least 50% of the written exam is needed to pass in each course.
- For the student to pass the 2nd part exam, a score of at least 60% (Level D) in each course is needed.

8-Methods of student assessments:

Method of assessment	weight	The assessed ILOs
1-Activities		- General transferable skills, intellectual skills
2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	50%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
3-OSCE/ OSPE	50%	-Practical skills, intellectual skills, general transferable skills
4-Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Course Specification of Human Anatomy & embryology in Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program Title: Master degree in Adolescent Medicine
2. Minor element of program
3. Department offering the program: Pediatrics.
4. Department offering the course: Human Anatomy & embryology.
5. Academic Year/level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Course Specification of Anatomy in Master degree in Adolescent Medicine

Code: ANA 0520-200

Total hours

Lectures	Practical/ Tutorial	Total hour	Credit hours
22.5	15	37.5	2

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge about the applied anatomy and embryology of the human body.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and Understanding:

By the end of the study of Master program in adolescent medicine the Graduate should be able to:

- a1. Mention the normal structure and function of the human body on the macro levels.
- a2. Mention early embryo development & normal growth and development of the human body.
- a3. List the recent advances in the abnormal structure, function, growth and development of human systems.

b) Intellectual Skills

By the end of the study of Master program in adolescent medicine the Graduate should be able to:

- b1. Link between knowledge for Professional problems solving.

c) Professional and Practical Skills

By the end of the study of Master program in adolescent medicine the Graduate should be able to:

- c1. Master the basic and modern surgical skills in the area of Adolescent Medicine

d) General and Transferable Skills

By the end of the study of Master program in adolescent medicine the Graduate should be able to:

- d1. Use information technology to serve the development of professional practice
- d2. Assess himself and identify personal learning needs.

3. **Contents**

Topic	No. of hours	Lecture	Practical
Introduction	3	1	
Applied anatomy and embryology of the skeleton	3	1	
Applied anatomy of the chest	3	1	
Applied anatomy and embryology of the abdomen and pelvis	3	1	
Applied anatomy and embryology of the upper limb	3	1	
Applied anatomy and embryology of the lower limb	3	1	
Applied anatomy and embryology of the head and neck	4.5	1.5	
Total	22.5	7.5	
Credit	1.5	0.5	

4. **Teaching and Learning Methods**

- 4.1- Lectures.
- 4.2- Practical lessons.
- 4.3- Assignments for the students to empower and assess the general and transferable skills

5. **Student Assessment Methods**

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	00%
Structured Oral Exam	00%
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Essential Books (Text Books)

- Fitzgerald M.J.T. (2016): The anatomical basis of medicine and surgery. By Standing s., ELIS H., Healy J. C., Johnson D. and Williams A. Gray's Anatomy. Elsevier; London, New York. Sydney. Toronto.

6.2- Recommended Books

- Stevens A. and Lowe J. S. (2015): Human histology; 5th edition; edited by Elsevier Mosby

- Colored Atlas of anatomy.

- Martini F. H., Timmons M. J. and McKinley M.P. (2015): Human anatomy; 10 edition.

- Tortora G. J. and Nielson M.T. (2016): Principles of human anatomy 14 edition; Edited by John Wiley and Sons ; United states.

- McMinn R.M.H. (2017): Lasts anatomy regional and applied chapter 7; 14 edition, edited by Longman group UK.

7. Facilities Required for teaching and learning.

1- Adequate infrastructure: including teaching places (teaching class, teaching halls, teaching laboratory), Comfortable desks, good source of aeration, bathrooms, good illumination, safety & Security tools.

2- Teaching Tools: including screens, Computer including cd(rw), data shows, Projectors, flip charts, white board, video player, digital video camera, Scanner, copier, colour and laser printers.

3- Computer Program: for designing and evaluating MCQs

Course Coordinator: Dr . Prof. M.Al-badry.

Head of Department: Dr. Prof. M. Al-badry

Date:1/9/2012, Revised: 1/9/2013, Revised:1/12/2018

Course Specifications of Physiology for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

- 1- Program Title: Master degree in Adolescent Medicine
- 2- Minor/major element of the program: minor
- 3- Department offering the program: Pediatrics Department
- 4- Department offering the course: Physiology Department
- 5- Academic year/level: First part
- 6- Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Physiology Department for Msc. D degree in Adolescent Medicine

Code: PHY 0526-300

Total hours:

Module	Lectures	Practical	Total hours	Credit
Physiology	30hours		30 hours	2

B. Professional information

1. Course aims:

The aim of this course is to provide the student with the basic physiological knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended learning outcomes (ILOs):

a) **Knowledge and understanding :**

By the end of the course the student should be able to:

- a1. Describe the basic physiology of body systems related to Adolescent Medicine specialty, by being able to :
 - a- Mention mechanisms of fever
 - b- Mention the physiology of vomiting & diarrhea.
 - c- Describe normal & abnormal heart sounds.
 - d- Mention Regulation of arterial blood pressure

b) **Intellectual Skills:**

By the end of the course the student should have the ability to:

- b1. link between knowledge for professional problem solving .
- b2. Identify pediatric problems and find solutions based on proper understanding of physiological basis.

c) **Professional and Practical Skills:**

By the end of the course the student should have the ability to:

c1. Assess methods and tools existing in the area of Adolescent based on proper understanding of physiological basis.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d1. Communicate effectively by different types of effective communication.
- d2. Use appropriate computer program packages and the internet to serve the development of professional practice.
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Work coherently and successfully as a part of a team and team's leadership.
- d6. Manage time effectively.
- d7. Maintain Continuous self-learning.

3. Contents of the course:

subject	Total number of hours	lectures	practical
I-Cardio-vascular system. -regulation of arterial blood pressure. -regulation of heart rate. -heart sounds.	6	6	
II-Respiration. hypoxia, cyanosis & regulation of respiration.	4	4	
III- Endocrine physiology. -thyroid, adrenal & pituitary.	6	6	
IV-Kidney. -mechanism of urine formation. -acid base balance.	2	2	
V-Blood . -types & functions of white blood cells. -R.B.Cs, erythropoiesis & anemia. -platelets, homeostasis & coagulation.	4	4	
VI-Digestion. -vomiting, deglutition, absorption & intestinal movements.	4	4	
VII-physiology of C.N.S. -pain	2	2	
VIII-metabolism. -fever & its mechanism.	2	2	
Total	30	30	
Credit	2	2	

4. Teaching Methods:

- 4.1. Lectures
- 4.2. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills)

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment 2	Final written exam	Week: 24
Assessment 3	Final Structured Oral Exam	Week: 24

Weighting of Assessments

Final-term written examination	00%
Structured Oral Exam	00%
Total	100%

6. List of references:

6.1- Essential books (textbooks)

Guyton textbook of physiology 13th Edition

6.2- Recommended Books

Ganong medical review of physiology the fourth edition.

6.3- Periodicals, Web Sites, ... etc

American journal of physiology

Websites :

<http://www.ncbi.nlm.gov/>

Findarticle.com

Freemedicaljournals.com

7. Facilities Required for Teaching and Learning

1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.

2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr/ Ahmad Mostafa

Head of Department: Dr: Hoda Mostafa

Date:1/9/2012, Revised: 1/12/2013, Revised: 1/12/2018

Course Specifications of Pharmacology for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

- 1- Program Title: Master degree in Adolescent Medicine
- 2- Minor/major element of the program: minor
- 3- Department offering the program: Pediatrics Department
- 4- Department offering the course: Pharmacology Department
- 5- Academic year/level: First part
- 6- Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Pharmacology Department for M.D degree in Adolescent Medicine

Code: PHA 0526-300

Total hours:

Module	Lectures	Practical	Total hours	Credit
Pharmacology	30 hours		30 hours	2

B. Professional information

1. Course aims:

The aim of this course is to provide the student with the basic pharmacological knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended learning outcomes (ILOs):

a) **Knowledge and understanding:**

By the end of the course, the student is expected to be able to:

- a1. List indications, pharmacokinetics and side effects of commonly used drugs in the field of pediatrics.

b) **Intellectual Skills**

By the end of the course, the student is expected to be able to:

- b1. link between knowledge for professional problem solving.
- b2. Identify different pediatric problem and choose the proper drugs and therapeutic measures for them.

c) **Professional and Practical Skills:**

By the end of the course, the student is expected to be able to:

- c1. Master the basic and modern professional pharmacological skills needed for the pediatric practice .

d) **General and Transferable Skills:**

By the end of the course, the student is expected to be able to:

- d1. Communicate effectively by different types of effective communication.

- d2. Use appropriate computer program packages and the internet to serve the development of professional practice
- d3. Assess himself/herself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Manage time effectively.
- d6. Maintain Continuous self-learning.

3. Contents of the course:

Subjects	No. of hours	Lecture	Tutorial/ Practical
- Basic pharmacological principles : pharmacodynamics pharmacokinetics drug interactions	2	2	
- Cardiovascular drugs: - antihypertensive drugs - heart failure drugs - antiarrhythmic drugs - diuretics	4	4	
- respiratory system drugs :	2	2	
- asthma drugs	2	2	
- antitussive drugs	2	2	
- GIT drugs	2	2	
- drug treatment of peptic ulcer	2	2	
- drug treatment of blood diseases	4	4	
- drugs acting on CNS : - sedative-hypnotics	4	4	
- antiepileptic drugs	2	2	
- Non-steroidal anti-inflammatory drugs	8	8	
- Endocrine drugs			
- antimicrobial drugs			
Total	30	30	-----

4. Teaching Methods:

- 4.1. Lectures
- 4.2. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills)

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment 2	Final written exam	Week: 24
Assessment 3	Final Structured Oral Exam	Week: 24

Weighting of Assessments

Final-term written examination	00%
Structured Oral Exam	00%
Total	100%

6. List of references:

6.1- **Essential Books (Text Books)**

Katzung , basic and clinical pharmacology.2018

6.2- **Recommended Books**

Lippincott's illustrated reviews of pharmacology.2016

6.3- **Periodicals, Web Sites, ... etc**

1. <http://www.ncbi.nlm.gov/>
3. Findarticle.com
4. Freemedicaljournals.com

7. Facilities Required for Teaching and Learning

- 1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.
- 2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr/Hala Ibrahim Madkour

Head of Department: Dr: Sanaa Abd El-Aal

Date:1/9/2012, Revised 1/12/2013,Revised: 1/12/2018

Course Specifications of Medical Biochemistry for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

- 1- Program Title: Master degree in Adolescent Medicine
- 2- Minor/major element of the program: minor
- 3- Department offering the program: Pediatrics Department
- 4- Department offering the course: Medical Biochemistry Department
- 5- Academic year/level: First part
- 6- Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Medical Biochemistry Department for Msc. D degree in Adolescent Medicine

Code: BIO 0526-300

Total hours:

Module	Lectures	Practical	Total hours	Credit
Medical biochemistry	15 hours		15 hours	1

B. Professional information

1. Course aims:

The aim of this course is to provide the student with the basic biochemistry knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended learning outcomes (ILOs):

a) **knowledge and understanding**

By the end of the course, the student is expected to be able to:

- a1. Illustrate the important biochemical metabolic pathways of normal child by being able to:
 1. List the biochemical importance of intermediary metabolism (Anabolic and catabolic)
 2. Discrete the importance of clinical biochemistry and its relation to pediatrics diseases.
 3. Explain the role of vitamin, minerals,
 4. Mention and explain hormonal action
 5. List the beneficial of good nutrition

b) **Intellectual Skills**

By the end of the course, the student is expected to be able to:

- b1. Interpret data acquired through biochemical tests to reach a provisional diagnosis for pediatric problems.

- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for metabolic pediatric problems.
- b3. link between knowledge for professional problem solving .
- b4. Identify different metabolic and biochemical pediatric problems and find solutions for them.

c) Professional and Practical Skills

By the end of the course, the student is expected to be able to:

- c1. Master the basic and modern professional skills related to the area of pediatrics.

d) General and Transferable Skills

By the end of the course, the student is expected to be able to:

- d1. Communicate effectively by different types of effective communication.
- d2. Use appropriate computer program packages and the internet to serve the development of professional practice
- d3. Assess himself/herself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Manage time effectively.
- d6. Maintain Continuous self-learning.

3. Contents of the course:

Topic	No. Of hours	Lecture	Tutorial/ Practical
Carbohydrates -Hexose monophosphate pathway -Carbohydrates storage diseases Glucose intolerance, Diabetes and hypoglycemia	3	3	
Lipid -Metabolism (catabolic and anabolic pathways) of fatty acids -Metabolism of triacylglycerol, phospholipids, glycolipids. -Cholesterol metabolism and steroid hormones. -Lipoproteins mainly LDL, and HDL.	3	3	
Protein Metabolism -General reactions -Mechanism of nitrogen disposal from amino acids -Metabolic inborn errors.	3	3	
Calcium and vitamin-D metabolism	1	1	
Iron metabolism	1	1	
Lactating mothers and general considerations of infant malnutrition	1	1	
Immunoglobulins and gene rearrangement	1	1	
Normal and abnormal hemoglobin	1	1	
Hormonal disturbances in childhood	1	1	
Total	15	15	
Credit	1	1	

4. **Teaching Methods:**

4.1. Lectures

4.2. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills)

5. **Methods of Students Assessment:**

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment 2	Final written exam	Week: 24
Assessment 3	Final Structured Oral Exam	Week: 24

Weighting of Assessments

Final-term written examination	00%
Structured Oral Exam	00%
Total	100%

6. **List of references:**

Essential Books (Text Books)

1. Text book of Biochemistry For Medical students 8th edition by DM Vasudevan 2016
2. Harper's illustrated Biochemistry 31 edition by victor Rodwell et al 2018

6.2- Recommended Books

1. Lectures notes on clinical Biochemistry, Whitby et al 1993
2. Lippincott's illustrated reviews Biochemistry, Champe, PC, Harvey, RA, 8th edition 2010

6.3- Periodicals, Web Sites, ... etc

<http://www.ncbi.nlm.gov/>

<http://www.vlib.org/>

7. **Facilities Required for Teaching and Learning**

- 1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.
- 2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr. Amira Morad Foad Hamdy

Head of Department: Prof Dr. Nagwa Sayed Ahmed Hassan

Date:1/9/2012, Revised 1/12/2013, Revised:1/12/2018

Course Specifications of Pathology for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program Title: Master degree in Pediatrics
2. Minor/major element of the program: Minor
3. Department offering the program: Pediatrics Department
4. Department offering the course: Pathology Department , clinical pathology department , microbiology and immunology department
5. Academic year/level: First part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Pathology, for Master degree in Adolescent Medicine

Code: Pat 0526-300

Total hours:

Module	Lectures	Practical	Tutorial/ clinical	Total hours
pathology	15 hours	30 hours	-----	45 hours

B. Professional Information

1. Course aims:

The aim of this course is to provide the student with the basic pathological knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended Learning Outcomes of Course (ILOs):

a) **Knowledge and Understanding:**

By the end of the course the student should be able to:

- a1. Describe the basic pathology of common pediatric diseases , by being able to :
- a2. Mention basis of general and systemic pathology.
- a3. List etiology, pathogenesis and pathologic manifestation of diseases.
- a4. Correlate gross and histopathology with the clinical basis of diseases.
- a5. Mention the fate and complications and prognosis of different diseases.

b) **Intellectual Skills:**

By the end of the course the student should have the ability to:

- b1. Interpret data acquired through pathological examination reports to reach a diagnosis for pediatric problems.
- b2. Link between knowledge for professional problem solving .
- b3. Identify pediatric problems and find solutions based on proper understanding of pathological basis.

c) **Professional and Practical Skills:**

By the end of the course the student should have the ability to:

- c1. Understands and evaluate pathological reports.
- c2. Assesses pathological methods and tools related to the field of pediatrics.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d1. Communicate effectively by different types of effective communication .
- d2. Use appropriate computer program packages and the internet to serve the development of professional practice.
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Work coherently and successfully as a part of a team and team's leadership.
- d6. Manage time effectively .
- d7. Maintain Continuous self-learning.

3. Course Contents:

Topic	No. of hours	Lecture	Practical
<u>1- General Pathology:</u>	9	3	6
1.1. Inflammation	1.5	0.5	1
1.2. Cell injury & apoptosis	1.5	0.5	1
1.3. Repair & healing	1.5	0.5	1
1.4. Circulatory disturbances	1.5	0.5	1
1.5. Immunopathology	1.5	0.5	1
1.6. Infectious diseases	1.5	0.5	1
<u>2- Pathology of Heart:</u>	6	2	4
2.1. Congenital heart diseases	1.25	0.25	1
2.2. Endocarditis & rheumatic fever	1.25	0.25	1
2.3. Valvular heart diseases	1	0.25	0.5
2.4. Myocarditis & cardiomyopathy	1	0.25	0.5
2.5. Heart failure	1	0.5	0.5
2.6. Pericarditis & pericardial effusion	1	0.5	0.5
<u>3- Pathology of Respiratory system:</u>	6	2	4
3.1. Bronchitis & bronchial asthma	1.25	0.25	1
3.2. Bronchiectasis & lung abscess	1.25	0.25	1
3.3. Pneumonias & empyema	1	0.25	0.5
a. Atelectasis & lung collapse	1	0.25	0.5
3.5. Pneumothorax & pleural effusion	1	0.5	0.5
3.6. Pulmonary hypertension	1	0.5	0.5
<u>4- Pathology of Gastrointestinal tract:</u>	6	2	4
4.1. Gastroenteritis & dysentery	1.25	0.25	1
4.2. Malabsorption syndrome	1.25	0.25	1
4.3. Intestinal obstruction	1.5	0.5	1
4.4. Hepatitis	1	0.5	0.5
4.5. Jaundice & cholestasis	1	0.5	0.5
<u>5- Pathology of Kidney:</u>	6	2	4
5.1. Glomerulonephritis	1.25	0.25	1
5.2. Nephrotic syndrome	1.25	0.25	1
5.3. Pyelonephritis	1.5	0.5	1
5.4. Hydronephrosis	1	0.5	0.5

5.5. Renal failure	1	0.5	0.5
<u>6- Pathology of Endocrine system:</u>	3	1	2
6.1. Hyperthyroidism & hypothyroidism	0.75	0.25	0.5
6.2. Grave's disease & goiter	0.75	0.25	0.5
6.3. Adrenocortical hyperfunction	0.75	0.25	0.5
6.4. Adrenal insufficiency	0.75	0.25	0.5
<u>7- Pathology of Nervous system:</u>	3	1	2
a. <u>Hydrocephalus & aneurysms</u>	1.25	0.25	1
b. <u>Meningitis & encephalitis</u>	0.75	0.25	0.5
c. <u>Brain abscess</u>	1	0.5	0.5
<u>8- Diseases of blood, lymph nodes, and spleen:</u>	3	1	2
8.1. <u>Leukemia & lymphoma</u>	1.5	0.5	1
8.2. <u>Hypersplenism & splenomegally</u>	1.5	0.5	1
<u>9- Pathology of Bone:</u>	3	1	2
9.1. <u>Osteomyelitis</u>	1.5	0.5	1
9.2. <u>Arthritis</u>	1.5	0.5	1
Total	45	15	30
Credit	2	1	1

4. Teaching methods:

- 4.1. Lectures
- 4.2. Practical lessons
- 4.3. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills).

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment of the candidate is at the end of the course (1st part exam)		
Assessment 1	Final written exam (1 paper)	week 24
Assessment 2	Final Structured Oral Exam	week 24

Weighting of Assessments

Final-term written examination	100%
Structured Oral Exam	100%
Total	100%

Formative assessment only: simple research assignment, log book, attendance

6. List of References

6.1- Essential Books (Text Books):

- Muir's text book of pathology, 15th edition, 2014
- Robbins pathologic basis of diseases, 10th edition, 2017

6.2- Recommended Books:

- Rosi & Ackerman text book of pathology, 11th edition, 2017
- Sternberg text book of pathology, 6th edition, 2015

6.3- Periodicals, websites:

American journal of pathology

Pathology journal

Human pathology journal

Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

7. Facilities Required for Teaching and Learning

1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.

2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: DR: Fatma El Zaharaa

Head of Department: DR: Afaf El- Nashar

Date: 1/9/2012, Revised 1/12/2013, Revised:1/12/2018

Course Specifications of Clinical pathology for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program Title: Master degree in Pediatrics
2. Minor/major element of the program: Minor
3. Department offering the program: Pediatrics Department
4. Department offering the course: clinical pathology department.
5. Academic year/level: First part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Clinical Pathology, for Master degree in Adolescent Medicine

Code: CLP 0526-300

Total hours:

Module	Lectures	Practical	Tutorial/clinical	Total hours
Clinical pathology	15 hours	30 hours		45 hour

B. Professional Information

1. Course aims:

The aim of this course is to provide the student with the basic clinical pathology knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and Understanding:

By the end of the course, the student is expected to be able to:

- a1. Describe the common diagnostic and laboratory techniques necessary to establish diagnosis of common pediatric diseases.

b) Intellectual Skills

By the end of the course, the student is expected to be able to:

- b1. Interpret data acquired through laboratory tests to reach a provisional diagnosis for pediatric problems .
- b2. Select from different diagnostic laboratory tests the ones that help reaching a final diagnosis for pediatric problems.
- b3. Link between knowledge for professional problem solving .
- b4. Identify different pediatric problems and find solutions for them based on proper understanding and evaluation of laboratory tests results.

c) Professional and Practical Skills

By the end of the course, the student is expected to be able to:

- c1. Understand and evaluate laboratory tests reports.

d) General and Transferable Skills

By the end of the course, the student is expected to be able to:

- d1. Communicate effectively by different types of effective communication .
- d2. Use appropriate computer program packages and the internet to serve the development of professional practice
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Manage time effectively.
- d6. Maintain Continuous self-learning.

3. Course Contents:

Topic	No. Of hours	Lecture	Tutorial/ Practical
Introduction to diagnostic testing	4	2	2
Blood studies : Hematology and coagulation	6	2	4
Urine studies	6	2	4
Stool studies	6	2	4
Cerebrospinal fluid studies	6	2	4
Clinical chemistry studies	6	2	4
Microbiological studies	6	2	4
Immunodiagnostic studies	5	1	4
Total	45	15	30
Credit	2	1	1

4. Teaching methods:

- 4.1. Lectures
- 4.2. Practical lessons
- 4.3. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills).

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment of the candidate is at the end of the course (1st part exam)

Assessment 1	Final written exam (1 paper)	week 24
Assessment 2	Final Structured Oral Exam	week 24

Weighting of Assessments

Final-term written examination	0.0%
Structured Oral Exam	0.0%
Total	100%

Formative assessment only: simple research assignment, log book, attendance

6. List of References

6.1- Essential Books (Text Books)

Manual of laboratory and diagnostic tests , 8th edition, 2014

6.2- Recommended Books

Essential hematology, 7th edition, 2016

Tids, Clinical chemistry 2014

6.3- Periodicals, Web Sites,

American Journal of hematology

Journal of clinical chemistry

Websites :

<http://www.ncbi.nlm.gov/>

www.findarticle.com

www.freemedicaljournals.com

7. Facilities Required for Teaching and Learning

1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.

2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr. Laila Mohamed Youssef

Head of Department: Dr. Hassna Abo El wafa

Date:1/9/2012, Revised 1/12/2013, Revised:1/12/2018

Course Specifications of Microbiology & Immunology for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program Title: Master degree in Pediatrics
2. Minor/major element of the program: Minor
3. Department offering the program: Pediatrics Department
4. Department offering the course: Microbiology and immunology department
5. Academic year/level: First part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018..

A. Basic Information

Title: Microbiology, for Master degree in Adolescent Medicine

Code: MIC 0526-300

Total hours:

Module	Lectures	Practical	Tutorial/clinical	Total hours
Microbiology & immunology	15 hours	30 hours		45 hours

B. Professional Information

1. Course aims:

The aim of this course is to provide the student with the basic microbiological and immunological knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended Learning Outcomes of Course (ILOs):

a) **Knowledge and Understanding:**

By the end of the course the student should be able to:

- a1. Describe the basic microbiology and immunology related to pediatric diseases

by being able to :

- List the microorganisms affecting children all over the world and particularly in Egypt.
- Describe the metabolism and genetics of organisms.
- Describe the pathology, clinical symptoms and complications of each disease.
- Summarize the laboratory tests needed for diagnosis of each case.
- Name the drugs and instructions used for treatment of each case.
- Describe some infection control methods
- Describe the structure and function of immune system

b) **Intellectual Skills:**

By the end of the course the student should be able to:

- b1. Interpret data acquired through microbiological tests to reach a provisional diagnosis for pediatric problems.

- b2. Select from different diagnostic microbiological tests the ones that help reaching a final diagnosis for pediatric problems.
- b3. Link between knowledge for professional problem solving .
- b4. Identify pediatric problems and find solutions based on proper understanding of pathological basis.
- b5. Identify different pediatric problems and find solutions for them based on proper understanding of microbiological and immunological basis .

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- c1. Understand and evaluate medical microbiological reports.
- c2. Assess methods and tools existing in the area of pediatrics based on proper understanding of microbiological and immunological basis.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d1. Communicate effectively by different types of effective communication.
- d2. Use appropriate computer program packages and the internet to serve the development of professional practice.
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Work coherently and successfully as a part of a team and team's leadership.
- d6. Manage time effectively.
- d7. Maintain Continuous self-learning.

3. Course Contents:

Subject	Total number of hours	lectures	Practical
- General bacteriology	3	1	2
- Systematic bacteriology	15	5	10
- General virology	3	1	2
- Systematic virology	6	2	4
Mycology-	3	1	2
- Immunology	9	3	6
- Applied microbiology	6	2	4
=====	=====	=====	=====
Total	45	15	30
Credit	2	1	1

4. Teaching methods:

- 4.1. Lectures
- 4.2. Practical lessons
- 4.3. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills).

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

Assessment of the candidate is at the end of the course (1st part exam)

Assessment 1 Final written exam (1 paper) week 24

Assessment 2 Final Structured Oral Exam week 24

Weighting of Assessments

Final-term written examination	0.0%
Structured Oral Exam	0.0%
Total	100%

Formative assessment only: simple research assignment, log book, attendance

6. List of References

6.1- Essential Books (Text Books)

Prof. Abla Elmehad immunology, systemic bacteriology, practical books.2015

Lippincott`s immunology ,systemic bacteriology

Jawetz Medical Microbiology.

Roitt Essential Immunology.

Alberts Molecular Biology

Abul Abbas Basic Immunology, 2015.

6.2- Recommended Books

-A coloured Atlas of Microbiology.

-Topley and Wilson, Microbiology.

Cellular and Molecular Immunology, 2017

6.3- Periodicals, Web Sites, ... etc

Journal of Microbiology

Journal of Immunology

<http://mic.sgmjournals.org>

7. Facilities Required for Teaching and Learning

1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.

2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr. Ekram Abd- Elrahman

Head of Department: Prof. Ahmed Hassan Abdel-Aziz

Date:1/9/2012, **Revised:** 1/12/2013, **Revised:**1/12/2018

Course Specifications of Embryology for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program Title: Master degree in Adolescent Medicine
1. Minor/major element of the program: minor
2. Department offering the program: Pediatric department
3. Department offering the course: Anatomy and embryology department
4. Academic year/level: First part
5. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018..

A. Basic Information

Title: Embryology for Master degree in Adolescent Medicine

Code: ANA 0526-300

Total hours:

Module	Lectures	Practical	Total hours	Credit
embryology	30 hours	--	30 hours	2

B. Professional Information

1. Course Aims:

The aim of this course is to provide the student with the basic embryology knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Pediatrics.

2. Intended Learning Outcomes of Course (ILOs)

a) **Knowledge and understanding:**

By the end of the course, the student is expected to be able to:

- a1. Describe the basic embryology of body systems related to Adolescent Medicine specialty .

b) **Intellectual Skills**

By the end of the course, the student is expected to be able to:

- b1. Link between knowledge for professional problem solving.
- b2. Identify different congenital anomalies and suggest possible mechanisms and causes for them.

c) **Professional and Practical Skills:**

By the end of the course, the student is expected to be able to:

- c1. Master the basic and modern professional skills in the area of pediatrics through proper diagnosis of different congenital anomalies..

d) **General and Transferable Skills:**

By the end of the course, the student is expected to be able to:

- d1. Communicate effectively by different types of effective communication .

- d2. Use appropriate computer program packages and the internet to serve the development of professional practice
- d3. Assess himself and identify his personal learning needs.
- d4. Use of different sources for information and knowledge.
- d5. Manage time effectively .
- d6. Maintain Continuous self-learning.

3. Contents

subjects	No. of hours	Lecture	Tutorial/ Practical
Introduction to general Embryology	2	2	
Embryology of cardiovascular system	4	4	
Embryology of respiratory system	4	4	
Embryology of the head and neck	4	4	
Embryology of nervous system	4	4	
Embryology of gastrointestinal system	4	4	
Embryology of genitourinary system	4	4	
Embryology of musculoskeletal system	4	4	
Total	30	30	
Credit	2	2	

4. Teaching Methods:

- 4.1. Lectures
- 4.2. Practical lessons
- 4.3. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills)

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment Schedule

- 1- Assessment 1: written examination week 24
- 2- Assessment 2: Structured Oral Exam week 24
- 3- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Essential Books (Text Books)

Gray's Anatomy, 41st editions.2018

Langman's human embryology.12th editions 2018

6.2- Recommended Books

A colored Atlas of Human anatomy and Embryology.,7th editions 2018

6.4- Periodicals, Web Sites, ... etc

- <http://www.ncbi.nlm.gov/>
- Findarticle.com
- Freemedicaljournals.com

7. Facilities Required for Teaching and Learning

1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.

2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr . Mohamed El Badry

Head of Department: Dr. Mohamed El Badry

Date:1/9/2012, Revised 1/12/2013, Revised:1/12/2018

Course Specifications of Applied biostatistics (with computer use) and Research Methodology in Master degree of Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program title : Master degree in Adolescent Medicine
2. Major/minor element of the program : Minor
3. Department offering the course: Community Medicine Dep.
4. Department offering the program: Pediatrics
5. Academic year /level : 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Applied biostatistics (with computer use) & Research methodology

Code: COM: 0526-200

Total Hours:

Title	Lectures	Practical/ surgical	Total	credit
Applied biostatistics (with computer use) & Research methodology	15	30	45	2

B. Professional Information

Applied Biostatistics Module:

1. Overall Aims of Course

Applied Biostatistics Module:

- a. To influence the students to adopt an analytical thinking for evidence based medicine.
- b. To use precisely the research methodology in researches and computer programs SPSS, Epi Info and Excel in data analysis.

Research Methodology Module:

The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of Public health and Community Medicine through providing:

1. Recent scientific knowledge essential for the mastery of practice of Public Health and Community Medicine according to the international standards.
2. Skills necessary for preparing for proper diagnosis and management of community problems, skills for conducting and supervising researches on basic scientific methodology.
3. Ethical principles related to the practice in this specialty.
4. Active participation in community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education.

6. Upgrading research interest and abilities.

2. Intended Learning Outcomes of Courses (ILOs)

Applied Biostatistics Module:

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. Mention different programs of analysis of data and statistical packages
- a2. Define the recent advances of sources of data and methods of collection.
- a3. Summarize data, construct tables and graphs
- a4. Calculate measures of central tendency and measures of dispersion
- a5. Describe the normal curves and its uses
- a6. Illustrate selected tests of significance and the inferences obtained from such tests
- a7. Illustrate selected tests of significance for parametric and non parametric inferences
- a8. Identify factor analysis and discrimination analysis.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

- b1. Mention how to collect and verify data from different sources
- b2. Interpret data to diagnose prevalent problems clinical pathology

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c1. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in clinical pathology

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d1. Use appropriate computer program packages.
- d2. Use of different sources for information and knowledge about biostatistics.

Research Methodology Module:

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
- a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
- a3. Describe the study design, uses, and limitations.
- a4. Mention the recent advances of principles, methodologies, tools and ethics of scientific research.
- a5. Explain the strategies and design of researches.
- a6. Describe bias and confounding.
- a7. Describe sampling techniques and list advantages of sampling
- a8. Identify principles of evidence based medicine.

b) Intellectual Skills

By the end of the course, the student is expected to be able to:

- b1. Conduct research studies that adds to knowledge.

- b2. Formulate scientific papers in the area of public health and community medicine
- b3. Innovate and create researches to find solutions to prevalent community health problems
- b4. Criticize researches related to public health and community medicine
- c) Professional and Practical Skills:**
By the end of the course, the student is expected to be able to:
- c1. Enumerate the basic and modern professional skills in conducting researches in the area of public health and community medicine.
- c2. Design new methods, tools and ways of conducting researches. .
- d) General and Transferable Skills:**
By the end of the course, the student is expected to be able to:
- d1. Use of different sources for information and knowledge to serve research.
- d2. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Applied Biostatistics Module:			
Recent advances in collection, analysis and interpretation of data	3	1	2
-Details of Tests of significance: Proportion test	3	1	2
-Chi-square test	1.5	.5	1
-Student T test	1.5	.5	1
-Paired T test	1.5	.5	1
-Correlation	1.5	.5	1
-Regression	2	1	1
-ANOVA test	3	1	2
-Discrimination analysis	3	1	2
-Factor analysis	3	1	2
-Parametric and non parametric tests	4.5	.5	4
Research Methodology Module:			
Details of epidemiological studies (case control, cohort and cross sectional)	3	1	2
Clinical trials, Quasi experimental study	3	1	2
Bias and errors	2	1	1
Setting a hypothesis	1.5	.5	1
Recent advances in screening	1.5	.5	1
- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	3	1	2
Setting an objective - Critical thinking	2	1	1

Formulation of papers	1.5	.5	1
Total hours	45	15	30
Total Credit hours	2	1	1

4. Teaching and Learning Methods

- 4.1- Lectures
- 4.2- Practical sessions
- 4.3- Computer search assignments
- 4.4- Computer application

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills, - Practical skills, intellectual skills
5.3-Structured Oral Exams	- Knowledge
5.4Computer search assignment	- general transferable skills, intellectual skills

Assessment Schedule

- Assessment 1....Final written exam Week: 24
- Assessment 2....Final oral exam Week: 24
- Assessment 3 Attendance and absenteeism throughout the course
- Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50%
Final oral Examination	50%
Total	100%

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

6. List of References

Applied Biostatistics Module:

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc

6.2- Recommended Books

- 1- Dimensions of Community Health, Boston Burr Ridge Dubuque.
- 2- Short Textbook of preventive & social Medicine Prentice-Hall International Inc.
- 3-Epidemiology in medical practice, 5thed Churchill Livingstone New York, London and Tokyo

6.3- Periodicals, Web Sites, etc

- 1-American Journal of Epidemiology
- 2-British Journal of Epidemiology and Community Health
- 3- WWW. CDC and WHO sites

Research Methodology Module:

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, 2008.,Robert Wallace, publisher McGraw-Hill Medical; 15 edition.

6.2- Recommended Books

- 1- Dimensions of Community Based projects in Health Care, 2018. Arxer, Steven L., Murphy, John W.; 1st edition.
- 2- Parks Text Book of Preventive & Social Medicine. 2017., K. Park. BanarsidasBhanot Publishers; 23 edition.
- 3- Clinical Epidemiology: The Essentials, 2013, Robert F., Suzanne W. Fletcher, Grant S., publisher Lippincott Williams & Wilkins; 5 edition.

6.3- Periodicals, Web Sites, ...etc

- 1-American Journal of Epidemiology
- 2-British Journal of Epidemiology and Community Health
- 3- WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning:

Applied Biostatistics Module:

- Adequate conditioned space for staff and assistants.
- Adequate conditioned teaching facilities.
- Audiovisual Aids: Data show, overhead and slide projectors and their requirements.

Research Methodology Module:

- ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.
- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinator: Dr/ Rasha Abd El-Hameed

Head of Department: Prof/ Ahmed Fathy Hamed

Date:1/9/2012, Revised 1/12/2013, Revised: 1/12/2018

Course Specifications of Adolescent Medicine (2nd part course) for Master degree in Adolescent Medicine

Sohag University

Faculty of Medicine

1. Program Title: Master degree in Adolescent Medicine
2. Minor/major element of the program: Major
3. Department offering the program: Pediatrics Department
4. Department offering the course: Pediatrics Department
5. Academic year/level: Second part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Paediatrics for Master degree in Paediatrics

Code: PED 0526-200

Total hours:

Course Title	Total No. of Credit hours	No. of hours		Total No. of hours
		Lect.	Clinical	
Growth & Development	3	22.5	45	67.5
Public Health (Health screening)	3	22.5	45	67.5
Obstetrics and Gynecology	2.5	1	45	
Orthopedics& sport medicine	1.5	12	22	34
Psychiatry	2.25	6	0.67	
Nutrition	2	0.33	0.67	45
Dermatology and veneriology Problems	1.25	0.33	0.18	
Common medical problems	3	22.5	45	67.5
Social aspects	1.25	0.33	0.18	
Ethics	1.25	0.33	0.18	
Interviewing and Communications	1.5	0.33	0.33	
Impact	1.5	0.33	0.33	
	24	180	360	540

B. Professional Information:

1. Course Aims:

The aim of this course is to provide the student with the basic knowledge and skills essential for the practice of Adolescent Medicine specialty and necessary to gain further training and practice in the field of Adolescent Medicine.

2. Course Intended Learning Outcomes (ILOs)

Growth and development module

a) **Knowledge and Understanding:**

By the end of the program, the student is expected to be able to :

- a1. Mention methods of evaluating normal and abnormal patterns of growth and development of infants and children .
- a2. List genetic diseases and ways of their diagnosis and the concepts of genetic counseling.

b) Intellectual Skills

By the end of the program, the student is expected to be able to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for pediatric problems .
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for pediatric problems.
- b3. Link between knowledge for professional problem solving .
- b4. Conduct research studies and / or write a scientific study on a research problem.
- b5. Assess Risk in professional practices in the field of pediatrics.
- b6. Plan to develop performance in the field of pediatrics.
- b7. Identify different pediatric problems and find solutions for them.
- b8. Analyze researches related to pediatrics.

c) Professional and Practical Skills

By the end of the program, the student is expected to be able to:

- c1. Master the basic and modern professional skills in the area of pediatrics.
- c2. Write and evaluate of medical reports.
- c3. Assess methods and tools existing in the area of pediatrics.

d) General and Transferable Skills

By the end of the program, the student is expected to be able to:

- d1. Communicate effectively by different types of effective communication.
- d2. Use appropriate computer program packages and the internet to serve the development of professional practice.
- d3. Assess himself and identify his personal learning needs.
- d4. Use different sources for information and knowledge.
- d5. Teach others and evaluate their performance.
- d6. Work coherently and successfully as a part of a team and as a team leader
- d7. Manage time efficiently.
- d8. Maintain Continuous self-learning.

Public health module

a) Knowledge and understanding.

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Advise the adolescents and their parents about immunization.

b) Intellectual skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- b1. Carry out practical procedures both for screening purposes.
- b2. Make evident in his/her work that an adolescent's health is influenced by both family and community practices.

c) Professional and practical skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- c1. Perform a complete physical examination of an adolescent.

d) General and Transferable Skills

By the end of the study of Master program in Obstetrics & Gynecology the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 1. break bad news.
 2. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
 3. involve colleagues and other related health care providers in the screening of adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.
- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
- d4. Show sensitivity to the screening of their patients.
- d5. Conduct researches in adolescent's health.

Obstetrics & Gynecology module:

a) Knowledge and understanding.

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Identify illnesses and issues related to sexuality and reproductive health.

b) Intellectual skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- b1. Carry out practical procedures both for diagnosis and management of reproductive health problems.

c) Professional and practical skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- c1. Perform a complete physical examination of an adolescent.

d) General and Transferable Skills

By the end of the study of Master program in Obstetrics & Gynecology the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 1. take medical and psychosocial history especially in relation to sexuality.
 2. explain the nature of common reproductive health illnesses and options for their treatment to both adolescents and their parents/guardians.
 3. take consent for common reproductive diagnostic and therapeutic procedures.
 4. break bad news.
 5. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
 6. involve colleagues and other related reproductive health care providers in the management of adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.

- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
- d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
- d5. Conduct researches in adolescent's health.

Orthopedics& sport medicine:

a) **Knowledge and understanding.**

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Diagnose and plan the treatment of common orthopedic diseases in adolescents.

b) **Intellectual skills**

By the end of the study of master program in adolescent medicine the Graduate should be able to:

- b1. Carry out practical procedures both for diagnosis and management purposes of orthopedic diseases.

c) **Professional and practical skills**

By the end of the study of master program in adolescent medicine the Graduate should be able to:

- c2. Perform a complete physical examination of an adolescent.

d) **General and Transferable Skills**

By the end of the study of Master program in adolescent medicine the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 - 1. take history especially in relation to orthopedic problems.
 - 2. explain the nature of common orthopedic illnesses and options for their treatment to both adolescents and their parents/guardians.
 - 3. take consent for common orthopedic diagnostic and therapeutic procedures.
 - 4. break bad news.
 - 5. counsel adolescents and their parents/guardians especially in relation to orthopedic conditions mentioned in the knowledge domain.
 - 6. involve colleagues and other related health care providers in the management of adolescent orthopedic patients.
- d2. Act as a leader of the team of health workers taking care of orthopedic adolescents patients.
- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents orthopedic patients.
- d4. Show sensitivity to the social, cultural and religious beliefs of their orthopedic patients.
- d5. Conduct researches in adolescent's orthopedic health.

Psychiatry:

a) **Knowledge and understanding.**

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Diagnose mental and cognitive problems and explain the principles of their management.

a2. Predict and identify the psychosocial problems associated with teenage pregnancies and single mothers and plan how to deal with these problems.

b) Intellectual skills

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

b1. Carry out practical procedures both for diagnosis and management purposes.

c) Professional and practical skills

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

c1. Perform a complete psychological examination of an adolescent.

d) General and Transferable Skills

By the end of the study of Master program in Obstetrics & Gynecology the Graduate should be able to:

d1. Communicate skillfully and effectively with adolescents in order to

1. take psychosocial history especially in relation to drugs, depression and suicide.
2. explain the nature of common illnesses and options for their treatment to both adolescents and their parents/guardians.
3. take consent for common diagnostic and therapeutic procedures.
4. break bad news.
5. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
6. involve colleagues and other related health care providers in the management of psychological adolescent patients.

d2. Act as a leader of the team of health workers taking care of adolescents.

d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.

d4. Show sensitivity to the social, cultural and religious beliefs of their patients.

d5. Conduct researches in adolescent's health.

Nutrition module

a) Knowledge and Understanding:

By the end of the course, the student is expected to be able to:

a1. Mention principles of the care of adolescents

a2. Describe the nutritional requirements of adolescents and nutritional abnormalities.

b) Intellectual Skills

By the end of the course, the student is expected to be able to:

b1. Interpret data acquired through history taking to reach a provisional diagnosis for nutritional problems.

b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for nutritional problems.

b3. Link between knowledge for professional problem solving .

b4. Conduct research studies and / or write a scientific study on a research problem.

b5. Assess Risk in professional practices in the field of adolescents.

- b6. Plan to develop performance in the field of adolescents.
- b7. Identify different pediatric problems and find solutions for them.
- b8. Analyze researches related to adolescents.
- c) Professional and Practical Skills**
By the end of the course, the student is expected to be able to:
 - c1. Master the basic and modern professional skills in the area of adolescents.
 - c2. Write and evaluate of medical reports.
 - c3. Assess methods and tools existing in the area of adolescents.
- d) General and Transferable Skills**
By the end of the course, the student is expected to be able to:
 - d1. Communicate effectively by different types of effective communication.
 - d2. Use appropriate computer program packages and the internet to serve the development of professional practice.
 - d3. Assess himself and identify his personal learning needs.
 - d4. Use different sources for information and knowledge.
 - d5. Teach others and evaluate their performance.
 - d6. Work coherently and successfully as a part of a team and as a team leader
 - d7. Manage time efficiently.
 - d8. Maintain Continuous self-learning.

Dermatology and veneriology Problems module:

- a) Knowledge and understanding.**
By the end of the study of this course in Adolescent medicine the Graduate should be able to:
 - a1. Diagnose and plan the treatment of sexually transmitted diseases.
 - a2. Diagnose and treat common dermatological conditions seen in adolescents.
- b) Intellectual skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
 - b1. Carry out practical procedures both for diagnosis and management of dermatological and venereal purposes.
 - b2. Make evident in his/her work that an adolescent's dermatological and venereal health is influenced by both family and community practices.
- c) Professional and practical skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
 - c2. Perform a complete physical examination of an adolescent.
- d) General and Transferable Skills**
By the end of the study of Master program in Adolescent medicine the Graduate should be able to:
 - d1. Communicate skillfully and effectively with adolescents in order to
 - 1. take medical and psychosocial history especially in relation to dermatological and venereal problems.
 - 2. explain the nature of common illnesses and options for their treatment to both adolescents and their parents/guardians.
 - 3. take consent for common diagnostic and therapeutic dermatological and venereal procedures.
 - 4. break bad news.

5. counsel adolescents and their parents/guardians especially in relation to dermatological and venereal conditions mentioned in the knowledge domain.
6. involve colleagues and other related health care providers in the management of dermatological and venereal adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.
- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
- d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
- d5. Conduct researches in adolescent's health.

Common medical problems module:

a) Knowledge and understanding.

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Anticipate the effects of chronic illnesses on the life of adolescents and plan their management.

b) Intellectual skills

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- b1. Carry out practical procedures both for diagnosis and management purposes.

c) Professional and practical skills

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- c1. Perform a complete physical examination of an adolescent.

d) General and Transferable Skills

By the end of the study of Master program in Adolescent medicine the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 1. explain the nature of common illnesses and options for their treatment to both adolescents and their parents/guardians.
 2. take consent for common diagnostic and therapeutic procedures.
 3. break bad news.
 4. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
 5. involve colleagues and other related health care providers in the management of adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.
- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
- d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
- d5. Conduct researches in adolescent's health.

Social aspects module:

- e) **Knowledge and understanding.**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- a1. Guide adolescents and their parents in dealing with the social problems.
- f) **Intellectual skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- b1. Carry out practical procedures both for diagnosis and management purposes.
 - b2. Make evident in his/her work that an adolescent's health is influenced by both family and community practices.
- g) **Professional and practical skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- c1. Perform a complete physical examination of an adolescent.
- h) **General and Transferable Skills**
By the end of the study of Master program in Adolescent medicine the Graduate should be able to:
- d1. Communicate skillfully and effectively with adolescents in order to
 1. break bad news.
 2. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
 3. involve colleagues and other related health care providers in the management of adolescent patients.
 - d2. Act as a leader of the team of health workers taking care of adolescents.
 - d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
 - d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
 - d5. Conduct researches in adolescent's health.

Ethics module:

- a) **Knowledge and understanding.**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- a1. Advise how to minimize the consequences of unethical practices.
- b) **Intellectual skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- b1. Make evident in his/her work that an adolescent's health is influenced by both family and community practices.
- c) **Professional and practical skills**
By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:
- c1. Perform a complete physical examination of an adolescent under ethical considerations.

d) General and Transferable Skills

By the end of the study of Master program in Obstetrics & Gynecology the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 - 1. take consent for common diagnostic and therapeutic procedures.
 - 2. break bad news.
 - 3. involve colleagues and other related health care providers in the management of adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.
- d3. Conduct researches in adolescent's health.

Interviewing and Communications module:

a) Knowledge and understanding.

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- a1. Guide adolescents and their parents in dealing with their problems.

b) Intellectual skills

By the end of the study of master program in Adolescent medicine the Graduate should be able to:

- b1. Make evident in his/her work that an adolescent's health is influenced by both family and community practices.

c) Professional and practical skills

By the end of the study of master program in Obstetrics & Gynecology the Graduate should be able to:

- c1. Perform a complete physical examination of an adolescent.

d) General and Transferable Skills

By the end of the study of Master program in Obstetrics & Gynecology the Graduate should be able to:

- d1. Communicate skillfully and effectively with adolescents in order to
 - 4. take medical and psychosocial history especially in relation to sexuality, drugs, depression and suicide.
 - 5. explain the nature of common illnesses and options for their treatment to both adolescents and their parents/guardians.
 - 6. take consent for common diagnostic and therapeutic procedures.
 - 7. break bad news.
 - 8. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
 - 9. involve colleagues and other related health care providers in the management of adolescent patients.
- d2. Act as a leader of the team of health workers taking care of adolescents.
- d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
- d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
- d5. Conduct researches in adolescent's health.

Impact module:

- a) **Knowledge and understanding.**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- a2. Anticipate the effects of chronic illnesses on the life of adolescents and plan their management.
 - a3. Advise how to minimize the consequences of high risk behaviors.
- b) **Intellectual skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- b1. Carry out practical procedures both for diagnosis and management purposes.
 - b2. Make evident in his/her work that an adolescent's health is influenced by both family and community practices.
- c) **Professional and practical skills**
By the end of the study of master program in Adolescent medicine the Graduate should be able to:
- c1. Perform a complete physical examination of an adolescent.
- d) **General and Transferable Skills**
By the end of the study of Master program in Adolescent medicine the Graduate should be able to:
- d1. Communicate skillfully and effectively with adolescents in order to
 10. break bad news.
 11. counsel adolescents and their parents/guardians especially in relation to conditions mentioned in the knowledge domain.
 12. involve colleagues and other related health care providers in the management of adolescent patients.
 - d2. Act as a leader of the team of health workers taking care of adolescents.
 - d3. Demonstrate empathy to the patient and their parents while taking care of adolescents.
 - d4. Show sensitivity to the social, cultural and religious beliefs of their patients.
 - d5. Conduct researches in adolescent's health.

3. Course Contents

Subject	Total number of hours	Lectures	Clinical
Growth and development:			
-Importance of studying growth and development	6	2	ε
-Assessment of growth	6	2	ε
-Normal growth(height, weight)	6	2	ε
- Key hormones	6	2	ε
-Growth charts	6	2	ε
-Abnormal growth	6	2	ε
-Developmental milestones	ε.ο	1.ο	3
- Sexual maturity	6	2	ε
-Fields of development	3	1	2
-Developmental assessment	6	2	ε
-Normal development	6	2	ε

-Delayed development	٦	٢	٤
Public Health (Health screening):			
-Immunizations	٢١	٧	١٤
<ul style="list-style-type: none"> • ACIP recommendations • Health guidance for teens • Normal development • Injury prevention • Nutrition • Physical activity • Dental health • Breast or testicular self-exam • Skin protection • Health guidance for parents 			
- Screening/counseling	١٨	٦	١٢
<ul style="list-style-type: none"> • Obesity • Contraception • Tobacco use • Alcohol use • Substance use • Hypertension • Depression/suicide • Eating disorders • School problems • Abuse • Hearing • Vision 			
- Tests	١٦.٥	٥.٥	١١
<ul style="list-style-type: none"> • Tuberculosis • Papanicolaou test • HIV infection • STDs • Cholesterol • Urinalysis • Hematocrit 			
- Periodicity of visits	٦	٢	٤
- Target age group (yr)	٦	٢	٤
Obstetrics and Gynecology:			
-Sexuality	٩	٣	٦
-Sexual behaviors	٩	٣	٦
-Unwanted sexual experiences	٩	٣	٦
-reproductive health	٩	٣	٦
-Menses	٩	٣	٦
-Contraception	٩	٣	٦
Orthopedics & sport medicine:			
- Osgood-Schlatter Disease	٦	٢	٤
- patellofemoral syndrome	٦	٢	٤
- slipped capital femoral epiphysis	٦	٢	٤
- growing pains	٦	٢	٤

- back pain	٥.٢٥	١.٧٥	٣.٥
- scoliosis	٤.٥	١.٥	٣
Psychiatry:			
categories of abused drugs	٣	١	٢
prevalence of drug use	٣	١	٢
etiology of drug use and abuse	٣	١	٢
alcohol	٣	١	٢
cigarette smoking	٣	١	٢
marijuana	٣	١	٢
hallucinogens	٣	١	٢
stimulants	٣	١	٢
inhalants	٣	١	٢
opioids	٣	١	٢
depressants	٣	١	٢
anabolic steroids	٣	١	٢
designer and club drugs	٣	١	٢
management of drug abuse	٣	١	٢
Nutrition:			
Nutritional requirements	٩	٣	٦
Breast & formula feeding	٦	٢	٤
Weaning	٦	٢	٤
Protein energy malnutrition	٦	٢	٤
Childhood obesity	٦	٢	٤
Vitamins in health and diseases	٦	٢	٤
Food allergy	٦	٢	٤
Dermatology & veneriology			
- acne	٤.٥	١.٥	٣
- skin growths	٤.٥	١.٥	٣
- hair lesions	٤.٥	١.٥	٣
- papulosquamous legions	٤.٥	١.٥	٣
- mic. Dermatology legions	٤.٥	١.٥	٣
-Sexually transmitted diseases	٤.٥	١.٥	٣
Common medical problems:			
- abdominal pain	٦	٢	٤
- chest pain	٦	2	٤
- fatigue	٦	٢	٤
- headaches	٦	2	٤
- sleep disorders	٦	2	٤
- cough	٦	٢	٤
- dysuria	٤.٥	١.٥	٣
- hematuria	٦	2	٤
- blurred vision	٣	1	٢
- voice changes	٦	2	٤
- recurrent fever	٦	٢	٤
- vomiting	٦	٢	٤
Social aspects:			
- Social considerations	٤.٥	١.٥	٣
- Social needs of adolescence	٤.٥	١.٥	٣
- Social implications of	٤.٥	١.٥	٣
adolescent problems	٤.٥	١.٥	٣

- Effects of social characters	٤.٥	١.٥	٣
- Social counseling	٤.٥	١.٥	٣
Ethics:			
-Informed Consent	٤.٥	١.٥	٣
-Privacy	٤.٥	١.٥	٣
-Confidentiality	٤.٥	١.٥	٣
-Dignity	٤.٥	١.٥	٣
-Age considerations	٤.٥	١.٥	٣
-Payment	٤.٥	١.٥	٣
Interviewing and communication:			
-General Guidelines for the office visit	١٢	٤	٨
-Office setup	٩.٧٥	٣.٢٥	٦.٥
-Guidelines for <i>Parents</i>	١٢	٤	٨
Impact			
Effects measurement	١٢	٤	٨
Efficiency of measures	٩.٧٥	٣.٢٥	٦.٥
Effectiveness of Measures	١٢	٤	٨
Total	540	180	360
Credit	24	12	12

4. Teaching Methods:

4.1. Lectures

4.2. Clinical lessons

4.3. Attending and participating in scientific conferences, workshops and thesis discussions. (To acquire the general and transferable skills)

5. Methods of Students Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
5.3-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.4-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.5-OSCE	-Practical skills, intellectual skills General transferable skills

Assessment schedule:

Assessment	final written exam	week96
Assessment	OSCE	week96
Assessment	final Structured Oral Exam	week96

Weighting of Assessments

Final- written Examination	50%
Structured Oral Examination	30%
OSCE	20%
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Course Notes

Lecture notes prepared by the staff members in the department

6.2- Essential Books (Text Books)

- 1- Nelson essential of pediatrics, 2018
- 2- Current diagnosis and treatment of pediatrics, 2014

6.3- Recommended Books

- 1- Nelson textbook of pediatrics, 2015
- 2 – Forfar textbook of pediatrics, 2017

6.4- Periodicals, Web Sites, ... etc

American journal of pediatrics
Archives of diseases of childhood
New England journal of medicine

Websites :

www.pediatrics.com

www.pediatriceducation.com

www.ncbi.nlm.gov

7. Facilities Required for Teaching and Learning

1- Adequate infrastructure: Including teaching places, comfortable desks, good source of aeration, bathrooms, good illumination, safety and security tools.

2- Teaching tools: Including screens, computers, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

Course Coordinator: Dr. Mostafa Ashry

Head of the Department: Dr. Mostafa Abo Sedara

Date:1/9/2012, Revised 1/12/2013, Revised: 1/12/2018.