## Peer Revision

| Reviewers | University | Date of Revision |
|---|---|---|
| - Prof. Dawlat Salem | Cairo | 10/12/2011 |
| - Prof. Ahmad K. Mansur | Mansura | 28/11/2011 |

# Specification of medical Doctorate Degree of Human Anatomy and Embryology

**Sohag University** **Faculty of medicine**

## A. Basic Information

1. Program title: medical Doctorate Degree of Human anatomy and Embryology
2. Program type: single
3. Faculty: Faculty of Medicine
4. Department: Human Anatomy and Embryology
5. Coordinator: Dr. Mohamed Al-Badry
6. External evaluator: Pr. Dr. Omer Gaber
7. Last date of program specifications approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

## B. Professional Information

### 1. Program aims

The aim of the program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of anatomy and embryology and necessary for further training and practice in the field of anatomy and embryology through providing

1. Recent scientific knowledge and skills essential for the mastery of practice of human anatomy and embryology according to the international standards.
2. Skills necessary for proper for applying anatomy and embryology for detecting different problems and diseases.
3. Ethical principles related to the practice in this speciality
4. Active participation in the community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education
6. Updating research interest and abilities.

### 2. Attributes of the post graduate:

1. Efficient in carrying out the basics and methodologies of scientific research in Anatomy and Embryology.
2. The continuous working to add new knowledge in his field.
3. Applying the analytical course and critical appraisal of the knowledge in his specialty and related fields.
4. Merging the specialized anatomical knowledge with the other related knowledge with conclusion and developing the relationships in between them.
5. Showing a deep awareness with the ongoing problems, theories, and advanced sciences in his specialty.
6. Determination of the professional problems and creating solutions for them.
7. Efficient in carrying out the professional skills in his specialty.
8. Using advanced suitable technologies which serves his practice.
9. Efficient communication and leadership of team work in his specialty.
10. Decision making through the available information.
11. Using the available resources efficiently and working to find new resources.

# Specification of medical Doctorate Degree of Human Anatomy and Embryology

**Sohag University** **Faculty of medicine**

A. **Basic Information**

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8. Using advanced suitable technologies which serves his practice.
9. Efficient communication and leadership of team work in his specialty.
10. Decision making through the available information.
11. Using the available resources efficiently and working to find new resources.

12. Awareness with his role in the development of the society and preserve environment.
13. Behaving in a way which reflects his credibility, accountability, and responsibility.
14. Keeping continuous self development and transfer his experiences and knowledge to others.

## 3. Intended learning outcomes (ILOs)

### a) Knowledge and Understanding

By the end of the study of doctoral program in Human Anatomy and Embryology the Graduate should be able to know and understand each of:

a1. Mention the recent advance in the normal structure and function of the
a2. human body.
a3. Understand the recent advance in the growth and development of different
a4. parts the human body.
Describe the recent function of the different systems in relation to their structure.
a5. List the recent advance in the abnormalities in development of different parts of human body.
a6. Enumerate the recent knowledge in the applied anatomy of different parts of the human body.
a7. Mention the Principles, methodologies, tools and ethics of scientific research and the recent advances in biostatistics and computer.
a8. List the principles and fundamentals of ethics and legal aspects of professional practice in the field of Human Anatomy and Embryology
a9. Define the principles and fundamentals of quality of professional practice in the field of Human Anatomy and Embryology
a10. Describe the effect of professional practice on the environment and the methods of environmental development and maintenance.

**Optional ILOS:**

a11. Define the principles and abnormalities in the human medical genetics
a12. Define the difference between different races an abnormalities related to each.
a13. Gain sufficient knowledge of the histological structure of the different body tissues and organs.
a14. List the different methods for tissue examination
a15. List general histological stains.
a16. Enumerate sufficient knows ledges of tissue preparations for electron microscopy.
a17. Enumerate sufficient knows ledges of tissue examination by electron microscopy.
a18. Define the shape and appearance of different body parts in x-ray and other radiological techniques

### b) Intellectual skills

By the end of the study of doctoral program in Human Anatomy and Embryology; the Graduate should be able to:

b1. Interpret data acquired through bones and cadavers to understand the normal function and structure of different parts of the human body.

b2. Interpret data acquired through normal development to understand the causes of different congenital anomalies of different parts of the human body.
b3. Select from different tools the one that can help in reaching final solving of the anatomical problems.
b4. Conduct research studies that add to knowledge.
b5. Formulate of scientific papers in the area of Human Anatomy and Embryology.
b6. Assesses risk in professional practices in the field of Human Anatomy and Embryology.
b7. Plan to improve performance in the field of Human Anatomy and Embryology.
b8. Identify anatomical and embryological problems and find a solution.
b9. Has the ability to innovate non-traditional solution to anatomical and embryological problems.
b10. Manages scientific discussion administration based on scientific evidences and proofs.
b11. Criticize Critical appraisal of researches related to Human Anatomy and Embryology.

**Optional ILOS:**

b12. Interpret data acquired through normal cell division and human genetics to understand the causes of different congenital anomalies of different parts of the human body.
b13. Understand from the features of the different races the difference between f human beings
b14. Understand the use of different general histological stains
b15. Understand the shape of different parts at x-ray.

**c) Professional and practical skills**

By the end of the study of doctoral program in Human Anatomy and Embryology The Graduate should be able to:

c1. Master the basic and modern professional skills in the area of Human Anatomy and Embryology.
c2. Write and evaluate medical reports.
c3. Evaluate and develop methods and tools existing in the area of Human Anatomy and Embryology.
c4. Dissect using the technological methods to serve the professional practice.
c5. Train junior staff through continuous medical education programs.
c6. Design new methods, tools and ways of professional practice.
c7. Optional ILOS:
c8. Master the basic and modern professional skills in using medical genetics.
c9. Master the basic and professional skills related to the study of human anthropology and related abnormalities.
c10. Master the basic and modern professional skills in histology and electron Microscope
c11. Master the basic and modern professional skills in radiological anatomy

**d) General and transferable skills**

By the end of the study of doctoral program in Human Anatomy and Embryology the Graduate should be able to:

d1. Present reports in seminars effectively.
d2. Use appropriate computer program packages.

d3. Teach others and evaluate their performance.
d4. Assess himself and identify his personal learning needs.
d5. Use of different sources for information and knowledge.
d6. Work coherently and successfully as a part of a team and team's leadership.
d7. Manage scientific meetings according to the available time.

**4. Academic standards**

Sohag faculty of medicine adopted the general national academic reference standards (NARS) provided by the national authority for quality assurance and accreditation of education (NAQAAE) for postgraduate programs. This was approved by the faculty council degree No 6854, in its cession No.177. Date 18-5-2009. Based on these NARS; Academic References standard (ARS) were suggested for this program. These ARS were approved by faculty council degree No 7528, in its cession No.191. Date 15-3-2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its cession No.60. Dated 26-12-2011.

**5. Curriculum Structure and Contents**

5.a- Program duration 7 semesters (3.5 years).

5.b- Program structure

5b.i- No. of hours per week:

| **Subject** | **hours /week** | | |
|---|---|---|---|
| | **Lectures** | **Practical** | **clinical** |
| First Part: | | | |
| Minors : | | | |
| Bio Statistics & Computer | 2 | 2 | |
| Research Methodology | 2 | 2 | |
| Optional courses: one of the followings: | | | |
| 1- Medical genetics | 4 | - | |
| 2-Principles of anthropology | 4 | - | |
| 3-Histology and electron microscope | 4 | - | |
| 4-Radiological anatomy | 4 | - | |
| Second Part: | | | |
| **Human anatomy and Embryology** | 7 | 12.5 | |

| code | Item | | No | % |
|---|---|---|---|---|
| b.i | Total credit hours | Compulsory | ٨٢ | 100 |
| | | Elective | 0 | 0 |
| | | Optional | ٨ | 0 |
| b.iii | credit hours of basic sciences courses | | ٨ | ٨.٩ |
| b.iv | credit hours of courses of social sciences and humanities | | 0 | 0 |
| b.v | credit hours of specialized courses: | | ٥٩ | .٦٥ |
| b.vi | credit hours of other course | | | |
| b.vii | Practical/Field Training | | 8 | 8.9% |

| | | | |
|---|---|---|---|
| b.viii | Program Levels (in credit-hours system):<br>Level 1: 1st part<br>Level 2: 2nd Part<br>Level 3: Thesis | <br>14<br>٥٣<br>14 | <br>15.6<br>٥٨.٩<br>16.7 |

**6. Program Course**

**3courses are compulsory +2/4 optional courses.**

**Semester…1…..**

**1st part**

**a. Compulsory**

| Course Title | No. of hours | No. of hours /week | | | Program ILOs Covered (By No.) |
|---|---|---|---|---|---|
| | | Lect. | practical. | clinical. | |
| Bio Statistics & Computer | 4 | 2 | 2 | | A6,b1,b2,c6,d2,d4,d5,d7 |
| Research Methodology+ | 4 | 2 | 2 | | A6,b4,b5,b9, b11,c1,c6, ,d5,d6 |

**c- Optional – 2 required**

| Course Title | No. of credit hours | No. of credit hours /week | | | Program ILOs Covered (By No.) |
|---|---|---|---|---|---|
| | | Lect. | Practical. | Clinical. | |
| Medical genetics | 4h | 4 | - | | a10,b12,c7,d4,d5,d6,d7 |
| Principles of anthropology | 4h | 4 | - | | a 11,b13,c8,d4,d5,d6,d7 |
| Histology and electron microscope | 4 h | 4 | - | | a12,a13,a14,a15,a16,a17, b14,c9,d4,d5,d6,d7 |
| Radiological anatomy | 4h | 4 | - | | a 18,b15,c10,d2,d4,d5 |

**b- Elective – number required**

| Code No. | Course Title | No. of Units | No. of hours /week | | | Programme ILOs Covered (By No.) |
|---|---|---|---|---|---|---|
| | | | Lect. | Lab. | Exer. | |
| | | | | | | |

**2nd part**

**a. Compulsory**

| Course Title | No. of hours | No. of hours /week | | | Program ILOs Covered (By No.) |
|---|---|---|---|---|---|
| | | Lect. | pracical | clinical | |
| Human anatomy and Embryology | 53h | 7 | 12.5 | | a1,a2,a3,a4,a5,a7,a8,a9, b1,b2,b3,b6,b7,b8,b9,b10, c1,c2,c3,c4,c5, d1,d3,d4,d5,d6,d7 |

**7. 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 know how to speak & write English well
- Candidate should have computer skills**.**
- Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (44), dated 6/1/2010.

**II- Specific Requirements**

- Master degree in Anatomy and Embryology with at least "Good Rank".

**8. Regulations for Progression and Program Completion**

Duration of program is 90 credit hours (≥7 semesters ≥3.5 years), starting from registration till acceptance of the thesis; divided to:

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

- Program-related basic science, Research Methodology, Ethics & medical reports, Biostatistics and computer.
- 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 after fulfillment of the credit hours.
- At least 60% of the written exam and 60% of the total oral and practical/clinical 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.
- GPA of ≥1.3 is needed to pass this level (semester).

**Second Part: (50-60 Credit hours ≥24 months= 4 semesters):**

- Program related specialized science of Anatomy courses. At least 24 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (8 Credit hours; with obtaining ≥75% of its mark) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; the credit hours of the logbook are calculated as following:
  - Each Cr. Hr.= 60 working Hrs.
  - Logbook= 8 Cr. Hr. X 60 working Hrs = 480 Working Hrs.
  - Collection of working Hrs. is as following:

| **Activity** | | **Hrs** |
|---|---|---|
| **Grand rounds** | **اجتماع علمى موسع** | **٦** |
| **Training courses** | **دورات تدريبية** | **12/ day** |
| **Conference attendance** | **حضور مؤتمرات علمية**<br>**داخلى**<br>**خارجة** | <br>**١٢/day**<br>**18/day** |
| **Thesis discussion** | **حضور مناقشات رسائل** | **٦** |
| **Workshops** | **حضور ورش عمل** | **١٢/day** |
| **Journal club** | **ندوة الدوريات الحديثة** | **٦** |
| **Seminars** | **لقاء علمى موسع** | **٦** |
| **Morbidity and Mortality conference** | **ندوة تحليل المخاطر المرضية أوالوفاة** | **٦** |
| **Self education program** | **برنامج التعليم الذاتى** | **٦** |

- Two sets of exams: 1st in October - 2nd in April.
- At least 60% of the written exam is needed to be admitted to the oral and practical exams.
- 4 times of oral and practical exams are allowed before the student has to re-attend the written exam.

**Third Part (Thesis) (15 Credit hours =24-48 months=4-8 semester):**

- Documentation of the subject should not be delayed for > 1.5 years after registration.
- Could start after registration and should be completed, defended and accepted after passing the 2nd part final examination, after passing of at least 24 months after documentation of the subject of the thesis and after publishing of at least one paper from the thesis in a specialized peer-reviewed journal.
- Accepting the thesis is enough to pass this part.

## 9. Methods of student assessments:

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

**Assessment schedule:**

**Part I:**

- Biostatistics & Computer: Written Exam (2 hours) + Structured oral Exam+ OSPE
- Research Methodology: Written Exam (2 hours) + structured oral Exam+ OSPE
- First optional course: Written Exam (3 hours) + structured oral Exam
- Second optional course: Written Exam (3 hours) + structured oral Exam

**Part II:**

- Anatomy: Two Written Exams (3 hours for each) + OSPE + Structured oral Exam.

## 10. Evaluation of Program Intended Learning Outcomes

| Evaluator | Tool | Sample |
|---|---|---|
| 1- Senior students | Questionnaire | 3 |
| 2- Alumni | Questionnaire | 3 |
| 3- Stakeholders ( Employers) | Questionnaire | 30 |
| 4-External Evaluator(s) (External Examiner(s)) | Report | 1 |
| 5- Other | | |

# Course Specification of Applied biostatistics (with computer use) For MD of Human Anatomy &Embryology

**Sohag University** **Faculty of Medicine**

1. Program on which the course is given: MD. Human Anatomy &Embryology.
2. Minor or major element of the program: minor.
3. Department offering the program: Human Anatomy &Embryology.
4. Department offering the course: Community Medicine Dep.
5. Academic year: Doctoral Degree 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 Applied biostatistics (with computer use) For MD of Human Anatomy &Embryology.

**Code:** COM-0512-300

| Title | lecture | practical | total | credit |
|---|---|---|---|---|
| Applied biostatistics | 30 | 30 | 60 | 3 |

## B. Professional Information

### 1. Overall Aims of Course

To use precisely computer programs and Applied biostatistics

### 2. Intended Learning Outcomes of Courses (ILOs)

**a) Knowledge and understanding:**

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

a1. Enumerate 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. Understand how to collect and verify data from different sources

b2. Interpret data to diagnose prevalent problems related to the field of anatomy

**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 related to the field of anatomy

**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.

## 3. Contents

| Topic | No. of hours | Lecture | Tutorial/ Practical |
|---|---|---|---|
| Recent advances in collection, analysis and interpretation of data | 6 | 3 | 3 |
| -Details of Tests of significance: Proportion test | 6 | 3 | 3 |
| Chi-square test | 6 | 3 | 3 |
| Student T test | 6 | 3 | 3 |
| Paired T test | 6 | 3 | 3 |
| -Correlation | 4 | 2 | 2 |
| -Regression | 6 | 3 | 3 |
| -ANOVA test | 4 | 2 | 2 |
| -Discrimination analysis | 6 | 3 | 3 |
| Factor analysis | 4 | 2 | 2 |
| - parametric and non parametric tests | 6 | 3 | 3 |
| **Total** | **60** | **30** | **30** |
| **Total credit hour** | **3** | **2** | **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 Exam:<br>-Short essay: 40%<br>-structured questions: 25%<br>-MCQs: 20%<br>-Commentary, Problem solving: 15% | <br>- Knowledge<br>- Knowledge<br>- Knowledge, intellectual skills<br>- Intellectual skills, General transferable skills, |
| 5.3-Structured Oral Exam | - Knowledge, Intellectual skills, General transferable skills |
| 5.4 Computer search assignment | -General transferable skills, intellectual skills |

**Assessment Schedule**

| | | |
|---|---|---|
| Assessment 1 | Final written exam | Week: 24 |
| Assessment 2 | Final Structured 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 Structured Oral Exam | 50 | % |
| Total | 100 | % |

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

## 6. List of References

### 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:

1. Adequate infrastructure includes teaching places(teaching class, teaching halls, teaching laboratory)comfortable desks, good source of aerations, bathrooms, good illumination and safety and security tools.
2. Teaching tools: includes screens, computers cd( r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, colouer and laser printers
3. Computer programs: for designing and evaluating MCQS.

**Course Coordinator:** Dr/**Foad Metry Atya**

**Head of Department:** Dr/ Ahmed Fathy Hamed

**Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018**

# Course Specification of Research methodology For MD of Human Anatomy & Embryology (1st part)

**Sohag University** **Faculty of Medicine**

1. Program on which the course is given: MD. Human Anatomy & Embryology.
2. Minor or major element of the program: minor.
3. Department offering the program: Human Anatomy & Embryology
4. Department offering the course: Community Medicine Dep.
5. Academic year: Doctoral Degree (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 Research methods For MD of Human Anatomy &Embryology.

**Code:** COM-0512-300

| Title | lecture | practical | Total | credit |
|---|---|---|---|---|
| Research methods | 30 | 30 | 60 | 3 |

## B. Professional Information

### 1. Overall Aims of Course

- To influence the students to adopt an analytical thinking for evidence based medicine
- To use precisely the research methodology in researches.
- Active participation in the community needs assessment and problems identification.
- Maintenance of learning abilities necessary for continuous medical education
- Updating research interest and abilities.

### 2. Intended Learning Outcomes of Courses (ILOs)

**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. Enumerate 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 add to knowledge.
b2. Formulate scientific papers in the area of anatomy
b3. Innovate and create researches to find solutions to prevalent problems related to the field of anatomy
b4. Criticize researches related to anatomy.

**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 conducting researches in the area of anatomy.
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 |
|---|---|---|---|
| Details of epidemiological studies (case control, cohort and cross sectional ) | 8 | 4 | 4 |
| Clinical trials, Quasi experimental study | 6 | 3 | 3 |
| Bias and errors | 6 | 3 | 3 |
| Setting a hypothesis | 6 | 3 | 3 |
| Recent advances in screening | 6 | 3 | 3 |
| - Evidence – based Medicine:<br>Concept and examples<br>Applicability<br>Scientific writing:<br>A protocol<br>A curriculum | 4<br>4<br>4<br>4 | 2<br>2<br>2<br>2 | 2<br>2<br>2<br>2 |
| Setting an objective –<br>Critical thinking | 2<br>2 | 1<br>1 | 1<br>1 |
| Formulation of papers | 8 | 4 | **4** |
| **Total** | **60** | **30** | **30** |
| **Credit hours** | **3** | **2** | **1** |

## 4. Teaching and Learning Methods

4.1- Lectures.
4.2- Computer search assignments

## 5. Student Assessment Methods

| Method of assessment | The assessed ILOs |
|---|---|
| 5.1- Observation of attendance and absenteeism. | - General transferable skills, intellectual skills |
| 5.3-Written Exam:<br>-Short essay: 40%<br>-structured questions: 25%<br>-MCQs: 20%<br>-Commentary, Problem solving: 15% | <br>- Knowledge<br>- Knowledge<br>- Knowledge, intellectual skills<br>- Intellectual skills, General transferable skills, |
| 5.4-Structured Oral Exam | - Knowledge, Intellectual skills, General transferable skills |
| 5.6 Computer search assignment | -General transferable skills, intellectual skills |

**Assessment Schedule**

Assessment 1Final written exam Week: 24
Assessment 2Final Structured 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 Structured Oral Exam | 50 % |
| Total | 100 % |

**Any formative only assessments** Attendance and absenteeism throughout the course
Computer search assignment performance throughout the course

## 6. List of References

### 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:

1. Adequate infrastructure includes teaching places (teaching class, teaching halls, and teaching laboratory) comfortable desks, good source of aerations, bathrooms, and good illumination and safety and security tools.
2. Teaching tools: includes screens, computers cd( r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, colure and laser printers
3. Computer programs: for designing and evaluating MCQS.

**Course Coordinator:** Dr/**Foad Metry Atya**

**Head of Department:** Dr/ Ahmed Fathy Hamed

**Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018**

# Course Specification of Medical Genetics for MD of Human Anatomy& Embryology

**Sohag University** **Faculty of Medicine**

1. Program on which the course is given: MD. Human Anatomy &Embryology.
2. Minor or major element of the program: minor
3. Department offering the program: Human Anatomy &Embryology
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 medical genetics For MD of Human Anatomy &Embryology

**CODE:** ANA-0512-300

| Title | lecture | practical | Total | credit |
|---|---|---|---|---|
| Medical genetics | 60 | - | 60 | 4 |

## B- Professional Information

### 1. Overall Aims of Course

The aim of the program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of **medical genetics** and necessary for further training and practice in the field of **medical genetics** through providing

- Recent scientific knowledge and skills essential for the mastery of practice of **medical genetics** according to the international standards.
- Skills necessary for proper for applying **medical genetics** for detecting different problems and diseases.
- Ethical principles related to the practice in this speciality

### 2. Intended learning outcomes (ILOs):

**a) Knowledge and Understanding:**

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

a1. Define the principles of the human medical genetics.

a2. Define the abnormalities in the human medical genetics.

**b) Intellectual Skills:**

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

b1. Interpret data acquired through normal cell division.

b2. Interpret data acquired through abnormal cell division.

b3. Interpret data obtained from different genetic investigations.

**c) Professional and Practical Skills:**

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

c1. Master the basic professional skills in medical genetics lab.

c2. Master the modern professional skills in medical genetics lab.

**d) General and Transferable Skills:**

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

d1. Assess himself and identify his personal learning needs.

d2. Use of different sources for information and knowledge.

d3. Work coherently and successfully as a part of a team and team's leadership.

d4. Manage scientific meetings according to the available time

**3. Contents**

| Topic | No. of hours (lectures) | lectures | practical |
|---|---|---|---|
| Cell divisions:<br>meiosis<br>mitosis | 15 | 15 | - |
| human chromosome:<br>The normal structure of chromosomes.<br>Types of chromosomes.<br>chromosomal behavior during cell division | 10 | 10 | - |
| Chromosomal aberrations:<br>-Structural aberrations:<br>-Numerical aberrations: | 10 | 10 | -- |
| chromosomal abnormalities in different diseases | 10 | 10 | - |
| Common diseases related to chromosomal abnormalities | 15 | 15 | - |
| **Total** | **60** | **60** | **-** |
| Credit hours | 4 | 4 | - |

**4. Teaching and Learning Methods**

4.1- lectures.

4.2- practical lessons.

4.3- attending and participating in scientific conferences, workshops and thesis discussion to acquire the general and transferable skills needed.

**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:<br>-Short essay: 40%<br>-structured questions: 25%<br>-MCQs: 20%<br>-Commentary, Problem solving: 15% | <br>- Knowledge<br>- Knowledge<br>- Knowledge, intellectual skills<br>- Intellectual skills, General transferable skills, |
| 5.3-Structured Oral Exam | - Knowledge, Intellectual skills, General transferable skills |
| 5.4-OSPE | -Practical skills, intellectual 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 |
| Assessment 3 | Final OSPE | week 24 |

**Weighting of Assessments**

| | |
|---|---|
| Final-term written examination | 50% |
| Structured Oral Exam | 30% |
| OSPE | 20% |
| Total | 100% |

## 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.

**6.3- Web Sites:** www.yahoo.com www.pubmed.com

**6.4-Periodicals:**

- Egyptian J of Histology
- Egyptian J of Anatomy
- Acta Anatomica
- International J of Experimental Research
- Science
- Cell and Tissue Research

## 7. Facilities Required for Teaching and Learning

1. Adequate infrastructure includes teaching places(teaching class, teaching halls, teaching laboratory)comfortable desks, good source of aerations, bathrooms, good illumination and safety and security tools.
2. Teaching tools: includes screens, computers cd( r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, colouer and laser printers
3. Computer programs: for designing and evaluating MCQS.

**Course Coordinator:** Dr . **Mohamed Al-Badry**

**Head of Department:** Dr. Mohamed Al-Badry

**Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018**

# Course Specification of Histology and Electron Microscope For MD of Human Anatomy &Embryology

**Sohag University** **Faculty of Medicine**

1. Program on which the course is given: MD. Human Anatomy & Embryology.
2. Minor or major element of the program: minor.
3. Department offering the program: Human Anatomy &Embryology
4. Department offering the course: Histology and Cell Biology
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

**Code: HIS**-0512-300

**Title:** Histology and Electron Microscopy

| Title | lecture | practical | Total | credit |
|---|---|---|---|---|
| **Histology and Electron Microscopy** | 60 | - | 60 | 4 |

## B. Professional Information

### 1. Overall Aims of Course

**Our aim is to graduate competent anatomy tests mastering the:**

Scientific know ledges essential for introducing histology practices in research work of Anatomy.

### 2. Intended learning outcomes (ILOs):

**a) Knowledge and Understanding:**

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

a1. Describe sufficient knowledge of the histological structure of the different body tissues and organs.
a2. List the different methods for tissue examination.
a3. Enumerate general histological stains.
a4. Describe sufficient know ledges of types and uses of electron microscopes..
a5. Describe sufficient know ledges of tissue preparations for electron microscopy.
a6. Describe sufficient know ledges of tissue examination by electron microscopy.

**b) Intellectual Skills:**

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

b1. Identify the different histological slides.
b2. Analyze the contents of any histological slide.
b3. Identify the histological structure of the body organs.
b4. Interpret some of the medical importance of the histological structure.

**c) Professional and Practical Skills:**

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

c1. Master the basic and modern professional skills in Histology and Electron Microscopy

**d) General and Transferable Skills:**

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

d1. Use the computer to enter histological web sites.

d2. Collect scientific data from the computer.

**3. Contents**

| Topic | Total hours | Lecture hours | Practical hours |
|---|---|---|---|
| **1-Microscopy**<br>-types of microscope<br>-light microscope and the resolving power<br>-electron microscope; types, resolving power and terms used | 4 | 4 | |
| **2-Micro technique**<br>-preparation of paraffin blocks<br>-filming<br>-smearing<br>-Grinding<br>-Spreading<br>-E.M. preparations | 4 | 4 | |
| **3-Histological stains**<br>-HX&E<br>-Stains for collagen fibers<br>-Stains for elastic fibers<br>-Stains for reticular fibers | 4 | 4 | |
| **4-Cytology**<br>-nucleus<br>-cytoplasmic organelles and inclusions. | 4 | 4 | |
| **5-Basic tissues of the body**<br>-epithelial tissue.<br>-connective tissue proper,cartilage,bone.<br>-muscular tissue.<br>-nervous tissue. | 4 | 4 | |
| **6-Cardiovascular system**<br>General structure of the heart wall.<br>General structure of the wall of blood vessels.<br>Arteries (large+medium sized)<br>Viens (large+medium sized)<br>Structure of special types of ateries and veins.<br>Arteriovenus connection;capillaries,sinusoids and arteriovenous anastomosis. | 6 | 6 | |

| | | | |
|---|---|---|---|
| **7-Lymphatic system**<br>Structure of lymph vessels.<br>Structur and function of lymphatic orgasns:<br>Lymph nodes.<br>Spleen<br>thymus<br>Tonsils | 4 | 4 | |
| **8-Integumentary system**<br>Structure and function of the skin. | 4 | 4 | |
| **9-Digestive system**<br>Oral cavity:<br>Lip<br>Tongue.<br>Salivary glands:<br>Digestive tract:<br>General structure og GIT.<br>Oesophagus.<br>Stomach;fundus,cardiac and pyloerus.<br>Small intestine;duodenum,jejunum and ileum.<br>Large intestine and appendix.<br>Cell renewal in GIT.<br>Junctions;gastro-oesophageal,pylorodudenal and rectoanal.<br>Pancreas.<br>Liver.<br>Structure and function of gall bladder. | 6 | 6 | |
| **10-Respiratory system**<br>-Structure and function of conducting portion of the respiratory system:<br>Nasal cavity.<br>Trachea and tracheobronchial epithelium.<br>Bronchial tree.<br>Bronchioles.<br>-structure and function of the respiratory portion:<br>Respiratory bronchioles.<br>Alveolar ducts and alveolar sacs.<br>Alveoli and alveolar epithelium;types and function of cells. | 4 | 4 | |
| **11-Endocrine system**<br>Main components of endocrine system.<br>Pituitary gland.<br>Thyroid gland.<br>Parathyroid gland.<br>Suprarenal gland<br>Pineal gland: | 4 | 4 | |

| | | | |
|---|---|---|---|
| **12-Urinary system**<br>Kidney<br>Urinary passeges<br>Ureter.<br>Urinary bladder<br>Male and female urethra. | 4 | 4 | |
| **13-Male reproductive system**<br>Testis:<br>Male genital ducts; structure and function: | 4 | 4 | |
| **14-Female reproductive system**<br>Ovary; structure and function:<br>Uterine(fallopian tubes) structure and function.<br>Uterus; structure and function:. | 4 | 4 | |
| **Total** | **60** | **60** | |
| **Credit hours** | **4** | **4** | |

**4. Teaching and Learning Methods**

4.1- lectures.

4.2- practical lessons.

4.3- attending and participating in scientific conferences, workshops and thesis discussion to acquire the general and transferable skills needed.

**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:<br>-Short essay: 40%<br>-structured questions: 25%<br>-MCQs: 20%<br>-Commentary, Problem solving: 15% | <br>- Knowledge<br>- Knowledge<br>- Knowledge, intellectual skills<br>- Intellectual skills, General transferable skills, |
| 5.3-Structured Oral Exam | - Knowledge, Intellectual skills, General transferable skills |
| 5.4-OSPE | -Practical skills, intellectual skills |

**Assessment Schedule**

Assessment of the candidate is at the end of the course

| | | |
|---|---|---|
| Assessment 1 | Final written exam (1 paper) | week 24 |
| Assessment 2 | Final Structured Oral Exam | week 25 |
| Assessment 3 | Final OSPE | week 25 |

**Weighting of Assessments**

| | |
|---|---|
| Final written Examination | 50% |
| Structured Oral Exam | 30% |
| OSPE | 20 |
| Total | 100% |

## 6. List of References

### 6.2- Essential Books (Text Books)

-Junqueira, Carneino and Kelly (2018): Basic Histology, 15th ed.Librairrie du liban and lang buruit,London,New York.

-Fawcett(1997):A Text Book of Histology,12th ed.Chapman and Hall,New York,London.

- Drury,R.A.B. and Walington,E.A.(1980): Histological techniques,5th ed.Oxford university press,New York.

-

-Pears,A.G.E.(1985): Histochemistery theoretical and applied,4th ed.Churchill Livingstone,Melbourne and New York.

### 6.3- Recommended Books

- Cormack,H.D.(2001): A text book of Histology,second edition,Lippincott,J.B. Company,Philadelphia.

- Williams,P.L.(2015):Gray's Anatomy,the anatomical bases of Medicine and Surgery,41th ed.,Cgurchill,Livingstone,Britain.

### 6.4- Web Sites:

http://www.histology-world.com

http://histo.life.illinois.edu/histo/atlas/slides.php

### 6.5-Periodicals:

-Egyptian J of Histology

-Egyptian J of Anatomy

- Acta Anatomica

- International J of Experimental Research

- Science

- Cell and Tissue Research

## 7. Facilities Required for Teaching and Learning

1-Adequate infrastructure includes teaching places(teaching class, teaching halls, teaching laboratory)comfortable desks, good source of aerations, bathrooms, good illumination and safety and security tools.

2-Teaching tools: includes screens, computers cd( r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, color and laser printers

3-Computer programs: for designing and evaluating MCQS.

**Course Coordinator:** Dr. **Nesreen Gamal**

**Head of Department:** Dr. Hekmat Osman

**Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018**

# Course Specification of Human Anthropology for MD of Human Anatomy &Embryology

**Sohag University** **Faculty of Medicine**

1. Program on which the course is given: MD. Human Anatomy &Embryology
2. Minor or major element of the program: minor
3. Department offering the program: Human Anatomy &Embryology
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 human anthropology For MD of Human Anatomy &Embryology

**CODE: ANA-**0512-300

| Title | lecture | practical | Total | credit |
|---|---|---|---|---|
| **human anthropology** | 60 | - | 60 | 4 |

## B. Professional Information

### 1. Overall Aims of Course

The aim of the program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of **human anthropology** and necessary for further training and practice in the field of **human anthropology** through providing

1. Recent scientific knowledge and skills essential for the mastery of practice of **human anthropology** according to the international standards.
2. Skills necessary for proper for applying **human anthropology** for detecting different problems and diseases.
3. Ethical principles related to the practice in this speciality

### 2. Intended learning outcomes (ILOs):

**a) Knowledge and Understanding:**

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

a1. Define the difference between different races abnormalities related to each.

**b) Intellectual Skills:**

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

b1. Understands from the features of the different races the difference between f human beings.

**c) Professional and Practical Skills:**

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

c1. Master the basic and professional skills related to the study of human anthropology and related abnormalities.

**d) General and Transferable Skills:**

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

d1. Assess himself and identify his personal learning needs.

d2. Use of different sources for information and knowledge.
d3. Work coherently and successfully as a part of a team and team's leadership.
d4. Manage scientific meetings according to the available time.

**3. Contents**

| Topic | No. of hours ( lectures) | lectures | practical |
|---|---|---|---|
| 1. Introduction to anthropology | 10 | 10 | |
| 2. Different types of races | 10 | 10 | |
| 3. Feature of each of the human race | 10 | 10 | |
| 4. Related abnormalities of each race | 10 | 10 | |
| 5. Related diseases of each race | 10 | 10 | |
| 6. Areas associated with each race | 10 | 10 | |
| **Total** | **60** | **60** | |
| **Credit hours** | **4** | **4** | |

**4. Teaching and Learning Methods**

4.1- lectures.
4.2- attending and participating in scientific conferences, workshops and thesis discussion to acquire the general and transferable skills needed.

**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:<br>-Short essay: 40%<br>-structured questions: 25%<br>-MCQs: 20%<br>-Commentary, Problem solving: 15% | <br>- Knowledge<br>- Knowledge<br>- Knowledge, intellectual skills<br>- 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 Examination | 50% |
| Structured Oral Examination | 50% |
| Total | 100% |

**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**

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

**6.3- Web Sites:**

www.yahoo.com
www.pubmed.com
http:/ www.innerbody.com

**6.4-Periodicals:**

-Egyptian J of Anatomy
- Acta Anatomica
- International J of Experimental Research

## 7. Facilities Required for Teaching and Learning:

1-Adequate infrastructure includes teaching places(teaching class, teaching halls, teaching laboratory)comfortable desks, good source of aerations, bathrooms, good illumination and safety and security tools.

2-Teaching tools: includes screens, computers cd( r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, color and laser printers

3-Computer programs: for designing and evaluating MCQS.

**Course Coordinator: Dr** . Mohamed Al-Badry

**Head of Department:** Dr. Mohamed Al-Badry

**Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018**

# Course Specification of Human Anatomy and Embryology for MD of Human Anatomy &Embryology

**Sohag University** **Faculty of Medicine**

1. Program on which the course is given: MD. Human Anatomy & Embryology.
2. Minor or major element of the program: major.
3. Department offering the program: Human Anatomy &Embryology
4. Department offering the course: Human Anatomy &Embryology
5. Academic year / Level: (2nd part).
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

## A. Basic Information

**Title:** Course Specification of human anatomy and Embryology for MD of Human Anatomy &Embryology.

**Code: ANA-**0512-300

| Title | Lecture | Practical | Total | Credit |
|---|---|---|---|---|
| Human Anatomy and Embryology | 420 | 750 | 1170 | 53 |

## B. Professional Information

### 1. Overall Aims of Course

The aim of the program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of anatomy and embryology and necessary for further training and practice in the field of anatomy and embryology through providing

1. Recent scientific knowledge and skills essential for the mastery of practice of human anatomy and embryology according to the international standards.
2. Skills necessary for proper for applying anatomy and embryology for detecting different problems and diseases.
3. Ethical principles related to the practice in this speciality

### 2. Intended learning outcomes (ILOs):

**a) Knowledge and Understanding:**

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

a1. Mention the recent advances in the normal structure and function of the different parts of human body.

a2. Enumerate recent advances in growth and development of different parts the human body.

a3. Describe the recent function of the different systems in relation to their structure.

a4. List the recent advance in the abnormalities in development of different parts of human body.

a5. Mention the recent knowledge in the applied anatomy of different parts of the human body.

a6. Define The principles and fundamentals of ethics and legal aspects of professional practice in the field of Human Anatomy and Embryology

a7. Define The principles and fundamentals of quality of professional practice in the field of Human Anatomy Embryology

a8. Enumerate the effect of professional practice on the environment and the methods of environmental development and maintenance.

**b) Intellectual Skills:**

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

b1. Interpret data acquired through bones and cadavers to understand the normal function and structure of different parts of the human body.

b2. Interpret data acquired through normal development to understand the causes of different congenital anomalies of different parts of the human body.

b3. Select from different tools the one that can help in reaching final solving of the anatomical problems.

b4. Assess risk in professional practices in the field of Human Anatomy and Embryology.

b5. Plan to improve performance in the field of Human Anatomy and Embryology.

b6. Identify anatomical and embryological problems and find a solution.

b7. Have the ability to innovate nontraditional solution to anatomical and embryological problems.

b8. Manages scientific discussion administration based on scientific evidences and proofs.

**c) Professional and Practical Skills:**

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

c1. Master the basic and modern professional skills in the area of Human Anatomy and Embryology.

c2. Writ and evaluate medical reports.

c3. Evaluate and develop methods and tools existing in the area of Human Anatomy and Embryology.

c4. Dissects using the technological methods to serve the professional practice.

c5. Train junior staff through continuous medical education programs.

**d) General and Transferable Skills:**

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

d1. present reports in seminars effectively

d2. Teach others and evaluate their performance.

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 scientific meetings according to the available time.

**3. Contents**

| Topic | Total No. of hours | Lectures | Practical |
|---|---|---|---|
| 1-Introduction: | 30 | 20 | 10 |
| -Anatomical position and lines<br>-Skin and its contents<br>-different types of bones and joints<br>-different types of muscles and different shapes<br>-different systems ( cardiovascular-nervous-lymphatic-urogenital-digestive) | | | |
| 2-Upper limb | 150 | 50 | 100 |
| Bones( clavicle –scapula-humerous-radius-ulna –carpal bone)<br>-joints(sternoclavicular-acromioclavicular-shoulder-elbow-wrist)<br>-Muscles(anterior and posterior compartments of the arm and forearm- muscles of the hand)<br>-Vessels(axillary-brachial-radial –ulnar-superficial and deep arches)<br>-nerves(brachial plexus and its branches-injury for each nerve)<br>Muscles of the back<br>Nerve and blood supply of the back<br>Vertebral column and its contents<br>Surface anatomy of different parts<br>Applied anatomy for each | | | |
| 3-Lower limb | 150 | 50 | 100 |
| -Bones (hip-femur-tibia-fibula-tarsal bones)<br>-Muscles( compartments of the thigh and leg-muscles of the foot)<br>-Vessels(femoral, popliteal, ant. tibial and posterior tibial)<br>-nerves( femoral nerve and its branches-sciatic nerve and its branches)<br>Surface anatomy of different parts<br>Applied anatomy for each part | | | |
| 4-abdomen | 150 | 50 | 100 |

| | | | |
|---|---|---|---|
| Bones( hip- lumber vertebrae )<br>Different part of the abdomen<br>-Muscles( muscles of the anterior and posterior abdominal walls)<br>-Vessels( aorta and its branches-other vessels of the abdomen-anastomosis)<br>- Nerves ( lumber plexus and its branches and supply of each nerve)<br>-Organs(liver- spleen-pancreas - biliary system-kidneys –suprarenal glands<br>Peritoneum and its recesses<br>Peritoneal relation of different organs<br>Sympathetic and parasympathetic supply of each part<br>Injunal canal and its contents<br>Different types of hernia<br>Abdominal incision<br>Surface anatomy of different parts<br>-Applies anatomy for each part | | | |
| 5-pelvis: | 150 | 50 | 100 |
| Bones (hip- sacrum)<br>Joints of the pelvis<br>Mechanism of the pelvis<br>Dimention of the pelvis<br>Muscles( levator ani and coccygeus and other small muscles)<br>-Vessels( internal iliac and its branches-internal iliac vein- other vessels of the pelvis)<br>-nerves( sacral and coccygeal plexus and its branches)<br>-sigmoid colon- rectum and anal canal- urinary bladder and urethra)<br>Uterus and tubes<br>Sympathetic and parasympathetic supply of each part<br>Surface anatomy of different parts<br>Applies anatomy for each part | | | |
| 6-Thorax: | 150 | 50 | 100 |
| Bones(sternum-ribs-vertebra)<br>Different joints of the thorax<br>Muscle (intercostals muscles-diaphragm)<br>Vessels(intercostals vessels-branches of thoracic aorta)<br>Nerves( intercostals nerves and other nerves supply the pelvis)<br>Pleural cavity and its contents<br>Mediastinum and its contents<br>Surface anatomy of different parts<br>Mechanism of respiration<br>Applies anatomy | | | |

| | | | |
|---|---|---|---|
| 7-Head and neck: | 150 | 50 | 100 |
| Bones( skull-mandible –cervical vertebra)<br>-scalp and face<br>-anterior and post. Triangles of the neck.and their contents<br>-different region (submandibular-infratemporal-parotid) and their contents<br>-pharynx<br>-larynx<br>-Nasal cavity<br>-oral cavity<br>-Vessels( common carotid and its branches)<br>-nerves (cervical plexus and its branches-cranial nerves and its branches.)<br>-cranial cavity and its contents.<br>Meninges and different folds and sinuses and their connections<br>Cranial nerves( origin- course and branches)<br>Orbit and its contents<br>Ear and its contents<br>Different mechanisms( mechanism of hearing-mechanism of diglutation- voice production and articulation)<br>Applies anatomy for each region | | | |
| 8-General Embryology: | 70 | 30 | 40 |
| Anatomy of the genital system<br>Ovulation<br>Fertilization<br>Implantation<br>Folding<br>Changes each week<br>Later on changes | | | |
| 9-Special Embryology: | 170 | 70 | 100 |
| Cardiovascular system:<br>Urogenital system<br>*Gastrointestinal system:*<br>Musculoskeletal system<br>Nervous system:<br>Anomalies of each system | | | |
| **Total** | **1170** | **420** | **750** |
| **Credit hours** | **53** | **28** | **25** |

**4. <u>Teaching and Learning Methods</u>**

4.1- lectures.

4.2- practical lessons.

4.3- Attending and participating in scientific conferences, workshops and thesis discussion to acquire the general and transferable skills needed.

4.4- Assignments.

## 5. Student Assessment Methods:

| 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:<br>-Short essay: 40%<br>-structured questions: 25%<br>-MCQs: 20%<br>-Commentary, Problem solving: 15% | <br>- Knowledge<br>- Knowledge<br>- Knowledge, intellectual skills<br>- Intellectual skills, General transferable skills, |
| 5.4-Structured Oral Exam | - Knowledge, Intellectual skills, General transferable skills |
| 5.5-OSPE | -Practical skills, intellectual skills |
| 5.6 Computer search assignment | -General transferable skills, intellectual skills |

**Assessment Schedule**

Assessment of the candidate is at the end of the course

| | |
|---|---|
| Assessment 1…. log book (formative exam) | Week: 80 |
| Assessment 2…. Final written exam | Week: 96 |
| Assessment 3…..Final OSPE | Week: 96 |
| Assessment 4 … Final Structured Oral Exam | Week: 96 |

**Weighting of Assessments**

- Final Written Examination. Separate exam.

Passing in the written exam is a condition to attend the following exams:

- Structured Oral Exam. 50 %
- OSPE 50 %

Total 100%

Formative only assessments simple research assignment, log book, attendance and absences

## 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; 10th edition.
- Tortora G. J. and Nielson M.T. (2016): Principles of human anatomy 14th edition; Edited by John Wiley and Sons ; United states.
- McMinn R.M.H. (2017): Lasts anatomy regional and applied chapter 14th edition, edited by Longman group UK.

**6.3- Web Sites:** www.yahoo.com www.pubmed.com http://www.innerbody.com

**6.4-Periodicals:**

-British journal of anatomy.
-Egyptian J of Histology
-Egyptian J of Anatomy
- Acta Anatomica
- International J of Experimental Research
- Science

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

1-Adequate infrastructure includes teaching places(teaching class, teaching halls, teaching laboratory)comfortable desks, good source of aeration, bathrooms, good illumination and safety and security tools.

2-Teaching tools: includes screens, computers cd( r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, colouer and laser printers

3-Computer programs: for designing and evaluating MCQS.

**Course Coordinator: Dr** . Mohamed Al-Badry

**Head of Department:** Dr. Mohamed Al-Badry

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