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| **Quality Assurance Unit** | **Tanta University**  **Faculty of Medicine** |

08

**Fall**

**Integrated based curriculum**

**Course Specifications**

**[Principles of anatomy]**

**Semester 1**

**2019-2020**

**Code: ANA 1101**

**1- Administrative Information**

1. **Program title: Bachelor of Medicine and Surgery with Accredited Points (M.B. B.Ch (Credit point)**
2. **Course title: principle of anatomy**
3. **Course code: ANA 1101**
4. **Course coordinator: Rabab Amer**
5. **Department(s) offering the course : Anatomy and Embryology department**
6. **Academic year: 2019-2020**
7. **Level: Level one – Semester one**
8. **Date of approval by:**

* **Council of the Faculty of Medicine, Tanta University: 21-8-2019**

1. **No. of hours: 18 week**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Credit points** | **%** | **Lectures** | **Practical/clinical** | **Media** | **Case scenario** | **Continuous assessment** | **Project presentation** | **2 quiz** | **Exam** | **Taught hrs.** |
| **7** | **Contact hrs (122 h)70%** | **56** | **28** | **28** | **6** | **4** |  |  |  |  |
|  | **Self-learning hrs (52h) 30%** |  |  |  | **6** |  | **21** | **21** | **4** | **175** |

**2- Professional Information**

**Academic standards adopted in this course is designed according to NARS 2017**

**3 – Course Description**

**Human Anatomy is the science concerned with dissection and gross study of the different body parts and organs, their relations and development.**

**4– Overall Course Aim/Objectives**

**Aim:**

**To acquire a basic scientific knowledge concerning the normal gross structure of the different human body parts and organs and the normal growth and development of the human embryo.**

* **To develop appropriate ethical and professional behavior necessary for dealing with cadavers**
* **To help students to correlate anatomical facts with their clinical applications (Applied anatomy & Problem Solving)**

**Objectives:**

1. **Provide students with basic medical information of the anatomy and embryology.**
2. **Prepare students to apply anatomical information and use it to solve clinical problems of patients.**
3. **Integrate anatomical data with different branches of medicine to prepare an efficient graduate.**
4. **Urge students to be a lifelong learner.**
5. **Provide the basic rules of ethics.**

**5 - Intended learning outcomes (ILOs)**

**By the end of this course the student will be able to:**

**Competency Area I: The graduate as a health care provider**

**1.8 Apply knowledge of the anatomical science relevant to the clinical problem at hand.**

**1.8.1 Explain the common clinical problems on the basis of relevant anatomical data (Applied anatomy).**

**1.9 Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).**

**1.9.1 Analyze and compare anatomical data and current data from literature.**

**1.9.2 Search for relevant information which helps him in solving clinical problems (Web-based learning, Self-learning and PBL).**

**Competency Area III: The graduate as a professional**

**3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.**

**3.1.1 Show respect and behave professionally with cadavers in the dissecting room.**

**3.1.2 Committed to wearing the white cloak and show the department's ID card.**

**Competency Area IV: The graduate as a scholar and scientist**

**4.1 Describe the normal structure of the body and its major organ systems and explain their functions.**

**4.1.1 Identify and demonstrate the different body parts (bones, joints, muscles, nerves, vessels) and organs (OSPE).**

**4.1.2 Describe normal position and relations of the different body parts and organs.**

**4.1.3 Simulate and recognize normal anatomical position and terms (directions and movements).**

**4.1.4 Label or/ draw diagrams of different parts and organs in the body.**

**4.3 Recognize and describe main developmental changes in humans.**

**4.3.1 Recognize the stages of normal development of the human embryo (general embryology).**

**Competency Area V: The graduate as a member of the health team and system**

**5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.**

**5.3.1 Implement collaborative team work during small group teaching (PBL).**

**Competency Area VI: The graduate as a lifelong learner and researcher**

**6.3 Identify opportunities and use various resources for learning.**

**6.3.1 Interacts positively with colleagues, peers and professors on web pages.**

**6.3.2 Use various resources in collecting information (Web-based learning, Media).**

**6.6 Effectively manage learning time and resources and set priorities (PBL and Assignment)**

**6.6.1 Achieve and perform the required duties from him on time (assignments).**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | Interactive Lecture | TBL | Web based L | Tutorial | Workshop | | | Small group teaching | | Portfolio |
| Multi Media | Lab | Computer | CBL |  |
| Principles of anatomy | √ |  | √ |  | √ | √ |  | √ |  | √ |

**6 – Course/ Course Contents**

| **Topics** |  | | | **ILOs covered** |
| --- | --- | --- | --- | --- |
|  | **Lectures** | **Lab.** | **Multi media** |  |
| 1. **Anatomical terminology** | **2 h** | **2h** | **2h** | **4.1.3, 6.3.2** |
| 1. **skin and fascia** | **2h** | **----** | **---** | **1.8.1, 4.1.2,4.1.4** |
| 1. **Muscular system** | **2h** | **2h** | **---** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| 1. **Skeletal system and skeleton**   **Bones forming axial skeleton (skull, mandible)** | **2h** | **4h** | **2h** | **1.8.1, 3.1, 4.1.1, 4.1.2, 4.1.4**  **6.3.2 (Multi Media & web based L.)**  **6.6.1 (Assignment log book, PPT)** |
| 1. **Typical vertebra and ribs.** | **2h** |  |  |
| 1. **Appendicular skeleton.**   **(organization and general features)** | **2h** |  |  |  |
|  |  |  |  |
| 1. **Different types of joints** | **2h** | **2h** | **1h** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| 1. **Introduction to respiratory system** | **4h** | **2h** | **2h** | **41.8.1,.1.1, 4.1.2, 4.1.4, 6.3.2** |
| 1. **Introduction to cardiovascular system and blood vessels** | **6 h** | **4h** | **2h** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| **10. Regions of the abdominal cavity**  **Introduction to digestive system** | **4h** | **4h** | **2h** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| 1. **.Introduction to urinary system** | **2h** | **2h** | **2h** | **3.1, 4.1.1, 4.1.2, 4.1.4 , , 6.3.2** |
| **12. Introduction to male genital system** | **2h** | **1h** | **1h** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| **13. Introduction to female genital system** | **2h** | **1h** | **1h** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| **14. Organization of the nervous system**  **Introduction to autonomic nervous system** | **6h** | **4 h** | **3h** | **3.1, 4.1.1, 4.1.2, 4.1.4, 6.3.2** |
| **15. General embryology** | **16** | **---** | **10h** | **1.8.1, 1.9.1,1.9.2, 4.3.1, 6.3.2** |
| **Total hours** | **56** | **28** | **28** |  |

**Ilos achieved by (Multi Media & web based L.) 6.3.2**

**Ilos achieved by (Assignment log book, PPT) 6.6.1**

**Ilos achieved by (Lab sessions) 4.1.1, 4.1.2, 4.1.3, 4.1.4**

| **Item** | **Time schedule** | **Teaching hours/week** |
| --- | --- | --- |
| **Lectures** | **2 times /week** | **4h** |
| **Practical**  **classes** | **1 times /week** | **2h** |
| **Multi-media** | **1 times /week** | **2h** |
| **Small groups (case scenario)** | **13th & 14th wk (14/12 & 21/12)** | **6h/semester**  **lL** |
| **Project presentation** | **7th wk (2/11)** | **21h** |
| **Total** |  | |

**8 - Student evaluation**

**8-1 COURSE POLICIES**

**8.1.1. Attendance:**

**Attendance is mandatory to all sessions. Due to the course emphasis in developing skills and not only knowledge, the students’ participation in all course activities is critical. Students who expect to be late for a mandatory class, lab, or small group session for any reason must contact the course director before the start of class. Unexcused absences demonstrate unprofessional behavior by the student.**

**8-1-2 Remediation of Unsatisfactory Performance in Course**

**A student who performs below the satisfactory level will be notified to Course Director for the purpose of developing a formal remediation plan which will established by the course director and the student.**

**8-1-3 Missing tests**

* **Students with sufficient reason for missing a test will have no grade for the missed test and their mean grade for tests will be based only on those that they completed.**
* **Students missing a test without sufficient reason will have a zero as grade for the missed tests, which will be incorporated to obtain the mean grade for their tests and the final grade for the course.**

**8-2 Course assessment:**

**Formative and summative assessment: they include:**

**1. Case scenario, project presentation, Quizzes, logbook.**

**2. Written exams: Midterm exam include 28 MCQs at 8th week**

**End term exam include 60% MCQ & 40%ultra-short essay. At 17th week**

**3. Practical skills assessment: Objective Structured Practical Exam (OSPE). At 15th week**

**-3 course assessment schedule and grading:**

**Grades are obtained based on the following complementary assessments:**

| **Assessment Method** | **Date** | **Description** | | **ILOs/Competencies assessed** | **Marks** | | | **% of Total** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.Continuous assessments (Portfolio)** | **Through semester** | * **2 Quizzes**   **At the end of 11th & 12th weeks**   * **Log book** * **Project presentation**   **At 7th week**   * **Case scenario**   **at 13th &14th weeks** | **1.9.1**  **4.1.2** | | | **21**  **7**  **7**  **7**  **(42)** | **30%** | |
| **2. Mid-term written exam** | **Midterm** | **28 MCQ at 8th week** | **1.9.1**  **4.1.2** | | | **14** | **10%** | |
| **3- Final written exam** | **End semester** | **(60%MCQ) & (40%Ultra short) at 17th week** | **1.8.1, 1.9.1, 4.1.2, 4.1.4** | | | **42** | **30%** | |
| **4- Practical exam** | **End semester** | **OSPE at end of 15th week** | **1.8.1,1.9.1,4.1.1,4.1.4** | | | **42** | **30%** | |
| **Total** |  |  | |  | **140** | | | **100%** | |

**9. Facilities required**

* **Lecture rooms with data show and computer facilities**
* **Dissecting rooms equipped with cadaveric samples, bones and plastic models**
* **Some plastinated cadaveric organs**
* **A u-shaped teaching halls with internet connection ( hosting 24 students )**
* **Computer lab equipped with internet connection**
* **Flip chart and colored pens**
* **A wall board**
* **Facilities for photocopying**

**10 - List of references**

**Mandatory Textbook**

* **Text book principles of Anatomy, of Anatomy department-Tanta University**
* **Practical book of Anatomy department-Tanta University**
* **Log book of Anatomy department-Tanta University**

**Recommended reference textbooks:**

* **Clinical Anatomy for Medical students, Richard S. Snell, (Snell, R.S.2012)**
* **Gray's Anatomy for Students: With Student Consult Online Access(Standring, S.; Anand, N.; Brich, R.; Collins, P.; Crossman, A.R.; Gleeson, M.; Jawaheer, G.; Smith, A.; Spratt, J.; Stringer, M.D.; Tubbs, R.S.; Tunstall, R.; Wein, A.J. and Wigley, C.B. (2016)**
* **Grant’s Atlas of Anatomy,( Anne M.R. Agur, and Arthur F. Dalley)**

**2. Electronic Materials, Web Sites etc.**

* [**http://sprojects.mmi.mcgill.ca/embryology/**](http://sprojects.mmi.mcgill.ca/embryology/)
* [**http://www.indiana.edu/~anat550/embryo\_main/index.html**](http://www.indiana.edu/~anat550/embryo_main/index.html)
* [**http://www.rsrevision.com/Alevel/ethics/embryology/index.htm**](http://www.rsrevision.com/Alevel/ethics/embryology/index.htm)
* [**http://www.med.upenn.edu/meded/public/berp/**](http://www.med.upenn.edu/meded/public/berp/)

##### Learning Resources for embryology

**1. Textbooks:**

* **Text book principles of Anatomy, of Anatomy department-Tanta University**
* **Langman’s Medical Embryology by T.W. Sadler.**

**2. Electronic Materials, Web Sites etc.**

* [**http://embryology.med.unsw.edu.au/**](http://embryology.med.unsw.edu.au/)
* [**http://www.rsrevision.com/Alevel/ethics/embryology/index.htm**](http://www.rsrevision.com/Alevel/ethics/embryology/index.htm)
* [**http://www.urbanext.uiuc.edu/eggs/**](http://www.urbanext.uiuc.edu/eggs/)
* [**http://www.med.uc.edu/embryology/**](http://www.med.uc.edu/embryology/)

***Course coordinator:***

***Rabab Amer***

|  |  |
| --- | --- |
| **Principles of anatomy** | **The name of course** |
|  | **Code of course** |

**A) Summary of topics matched with competencies’ domains ILOs in the course**

| **LLL & researcher** | **Health team &system** | **Scholar and scientist** | **Professionalism** | **Health care provider** | **Topics of the course** |
| --- | --- | --- | --- | --- | --- |
| **Lectures** | | | | | |
| **√** |  | **√** | **√** |  | **Anatomical terminology** |
| **√** |  | **√** | **√** | **√** | **skin and fascia** |
| **√** |  | **√** | **√** | **√** | **Muscular system** |
| **√** |  | **√** | **√** | **√** | **\*Skeletal system and skeleton**  **\*Bones forming axial skeleton (skull, mandible, typical vertebra and ribs)**  **\* Bones forming appendicular skeleton. (organization and general features)** |
| **√** | **√** | **√** | **√** | **√** | **Different types of joints** |
| **√** |  | **√** | **√** | **√** | **Introduction to respiratory system** |
| **√** |  | **√** | **√** | **√** | **Introduction to cardiovascular system and blood vessels** |
| **√** | **√** | **√** | **√** | **√** | **\*Regions of the abdominal cavity**  **\*Introduction to digestive system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to urinary system** |
| **√** | **√** | **√** | **√** | **√** | **\*Introduction to male genital system**  **\*Introduction to female genital system** |
| **√** | **√** | **√** | **√** | **√** | **\*Organization of the nervous system**  **\*Introduction to autonomic nervous system** |
| **√** | **√** | **√** | **√** | **√** | **General embryology** |
| **Practical** | | | | | |
| **√** | **√** | **√** | **√** | **√** | **Normal anatomical position and anatomical terms (directions and movements)** |
| **√** | **√** | **√** | **√** | **√** | **muscle, bone and joints** |
| **√** | **√** | **√** | **√** | **√** | **External features of the different views of the skull** |
| **√** | **√** | **√** | **√** | **√** | **General features of ribs & vertebral column** |
| **√** | **√** | **√** | **√** | **√** | **External features of the mandible** |
| **√** | **√** | **√** | **√** | **√** | **External feature of the upper and lower limb** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to respiratory system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to cardiovascular system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to digestive system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to urinary system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to genital system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to nervous system** |
| **Multi-media** | | | | | |
|  |  | **√** | **√** |  | **Anatomical terminology** |
| **√** |  | **√** | √ |  | **bone and joints** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to respiratory system** |
| **√** |  | **√** | **√** | **√** | **Introduction to cardiovascular system** |
| **√** |  | **√** | **√** | **√** | **Introduction to digestive system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to urinary system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to genital system** |
| **√** | **√** | **√** | **√** | **√** | **Introduction to nervous system** |
| **√** | **√** | **√** | **√** | **√** | **General embryology** |

**C) Course – program ILOs Matrix**

| **Course ILOs**  **Program ILOs** | | **Health care provider** | | **professionalism** | **Scholar 7 scientist** | | | **Health team & system** | | **LLL & researcher** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.8** | **1.9** | **3.1** | **4.1** | **4.3** | **5.3** | | **6.3** | | **6.6** |
| **Competency 1** | **1.1** |  |  |  |  |  |  | |  | |  |
| **1.2** |  |  |  |  |  |  | |  | |  |
| **1.3.** |  |  |  |  |  |  | |  | |  |
| **1.4.** |  |  |  |  |  |  | |  | |  |
| **1.5.** |  |  |  |  |  |  | |  | |  |
| **1.6.** |  |  |  |  |  |  | |  | |  |
| **1.7.** |  |  |  |  |  |  | |  | |  |
| **1.8** | **\*** |  |  |  |  |  | |  | |  |
| **1.9** |  | **\*** |  |  |  |  | |  | |  |
| **1.10** |  |  |  |  |  |  | |  | |  |
| **1.11** |  |  |  |  |  |  | |  | |  |
| **1.12** |  |  |  |  |  |  | |  | |  |
| **1.13** |  |  |  |  |  |  | |  | |  |
| **1.14** |  |  |  |  |  |  | |  | |  |
| **1.15** |  |  |  |  |  |  | |  | |  |
| **1.16** |  |  |  |  |  |  | |  | |  |
| **1.17** |  |  |  |  |  |  | |  | |  |
| **Competency 3** | **3.1.** |  |  | **\*** |  |  |  | |  | |  |
| **3.2.** |  |  |  |  |  |  | |  | |  |
| **3.3.** |  |  |  |  |  |  | |  | |  |
| **3.4.** |  |  |  |  |  |  | |  | |  |
| **3.5.** |  |  |  |  |  |  | |  | |  |
| **3.6.** |  |  |  |  |  |  | |  | |  |
| **3.7.** |  |  |  |  |  |  | |  | |  |
| **3.8** |  |  |  |  |  |  | |  | |  |
| **3.9** |  |  |  |  |  |  | |  | |  |
| **Competency 4** | **4.1.** |  |  |  | **\*** |  |  | |  | |  |
| **4.2.** |  |  |  |  |  |  | |  | |  |
| **4.3.** |  |  |  |  | **\*** |  | |  | |  |
| **4.4.** |  |  |  |  |  |  | |  | |  |
| **4.5** |  |  |  |  |  |  | |  | |  |
| **4.6** |  |  |  |  |  |  | |  | |  |
| **4.7** |  |  |  |  |  |  | |  | |  |
| **4.8** |  |  |  |  |  |  | |  | |  |
| **4.9** |  |  |  |  |  |  | |  | |  |
| **Competency 5** | **5.1** |  |  |  |  |  |  | |  | |  |
| **5.2** |  |  |  |  |  |  | |  | |  |
| **5.3** |  |  |  |  |  | **\*** | |  | |  |
| **5.4** |  |  |  |  |  |  | |  | |  |
| **5.5** |  |  |  |  |  |  | |  | |  |
| **5.6** |  |  |  |  |  |  | |  | |  |
| **5.7** |  |  |  |  |  |  | |  | |  |
| **5.8** |  |  |  |  |  |  | |  | |  |
| **5.9** |  |  |  |  |  |  | |  | |  |
| **5.10** |  |  |  |  |  |  | |  | |  |
| **5.11** |  |  |  |  |  |  | |  | |  |
| **5.12** |  |  |  |  |  |  | |  | |  |
| **Competency 6** | **6.1** |  |  |  |  |  |  | |  | |  |
| **6.2** |  |  |  |  |  |  | |  | |  |
| **6.3** |  |  |  |  |  |  | | **\*** | |  |
| **6.4** |  |  |  |  |  |  | |  | |  |
| **6.5** |  |  |  |  |  |  | |  | |  |
| **6.6** |  |  |  |  |  |  | |  | | **\*** |
| **6.7** |  |  |  |  |  |  | |  | |  |
| **6.8** |  |  |  |  |  |  | |  | |  |
| **6.9** |  |  |  |  |  |  | |  | |  |
| **6.10** |  |  |  |  |  |  | |  | |  |

***Course coordinator:***

***Dr /Rabab Amer***

**Head of Anatomy department:**

**Professor dr. /Amal Mohammed Amin**