



## Course Specification of Anatomy

| I. Course Identification and General Information: |  |  |     |     |              |
|---|--|--|-----|-----|--------------|
| 1   | Course Title   | Anatomy  |     |     |              |
| 2   | Course Number & Code:                                  | Ph411  |     |     |              |
| 3   | Credit hours:  | <b>C.H</b>                                       |     |     | <b>Total</b> |
|   |  | Th.  | Pr. | Tr. |              |
|   |  | 2  | -   |     |              |
| 4   | Study level/ semester at which this course is offered: | 1 <sup>st</sup> level / 1 <sup>st</sup> Semester |     |     |              |
| 5   | Pre –requisite (if any):                               |  |     |     |              |
| 6   | Co –requisite (if any):                                |  |     |     |              |
| 7   | Program (s) in which the course is offered:            | Bachelor of Pharmacy                             |     |     |              |
| 8   | Language of teaching the course:                       | English  |     |     |              |
| 9   | Location of teaching the course:                       | Faculty of Pharmacy- Sana`a university           |     |     |              |
| 10  | Prepared by:   | Prof Hassan Al-Shamahy                           |     |     |              |
| 11  | Date of approval:                                      |  |     |     |              |

### II. Course description:

The general aim of this course is to enable students to become acquainted with the detailed structure and essential functions of those parts of the human body necessary for clinical practice, and centered anatomy to equip students to be able to function effectively as part of the general medical health-care team.

### III. Intended learning outcomes (ILOs) of the course:



**At the end of this course the students should be able to:**

1. Recognize Knowledge and understanding terms and planes of gross anatomy.
2. Describe the knowledge and understanding about the structure and essential function of each organ
3. Recall the knowledge about the body systems
4. Name and locate the major arteries and veins of the body and understanding the basic arrangement of the nervous system.
5. Identify proper position and orientation of each organ and structure.
6. Correlate anatomical facts with its major clinical applications.
7. Apply understanding of human anatomy on demonstration of evidence based practice.
8. Develop communication with the internet critically as a source of information about human anatomy.
9. Organize working as a team member in collecting valuable information of evidence based practice.

**IV. Intended learning outcomes (ILOs) of the course:**

**(A) Knowledge and Understanding:**

Alignment Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in:  
**Knowledge and Understanding.**

| Program Intended Learning Outcomes (Sub- PILOs) in:<br><b>Knowledge and Understanding</b> |  | Course Intended Learning Outcomes (CILOs) in:<br><b>Knowledge and Understanding</b> |   |
|---|--|---|---|
| After completing this program, students would be able to:                                 |  | After participating in the course, students would be able to:                       |   |
| <b>A1-</b>  | Recognize the principles of physical, chemical, clinical, social, behavioral, health and pharmaceutical sciences.                                | <b>a1-</b>  | Recognize the meaning terms and planes of gross anatomy.      |
| <b>A3-</b>  | Describe the general cellular, biochemical and physiological aspects of human body and recognize the pharmacokinetics, pharmacodynamics, disease | <b>a2-</b>  | Describe the structure and essential functions of each organ. |
|   |  | <b>a3-</b>  | Recall the definitions about the body systems.                |



|  |   |   |   |
|--|---|---|---|
|  | pathophysiology, and pharmacogenetic of therapeutic agents to provide pharmaceutical care and facilitate management of patient's medication, rationalize drug use and overall health needs. | a4-   | Name and locate the major arteries and veins of the body and understanding the basic arrangement of the nervous system. |
| <b>Teaching And Assessment Methods For Achieving Learning Outcomes:</b>  |   |   |   |
| <b>Alignment Learning Outcomes of Knowledge and Understanding to Teaching and Assessment Methods:</b>  |   |   |   |
| <b>Course Intended Learning Outcomes (CILOs) in Knowledge and Understanding</b><br>After participating in the course, students would be able to: |   | <b>Teaching strategies/methods to be used</b> | <b>Methods of assessment</b>  |
| a1-  | Recognize the meaning terms and planes of gross anatomy.  | Lectures<br>Seminars<br>Discussions           | Written Mid & final theoretical exams<br>Quizzes<br>assignment<br>Attendance  |
| a2-  | Describe the structure and essential functions of each organ.   |   |   |
| a3-  | Recall the definitions about the body systems.  |   |   |
| a4-  | Name and locate the major arteries and veins of the body and understanding the basic arrangement of the nervous system.   |   |   |

## (B) Intellectual Skills:

|  |   |   |   |
|--|---|---|---|
| <b>Alignment Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Intellectual skills</b> |   |   |   |
| <b>Program Intended Learning Outcomes (Sub-PILOs) in Intellectual skills</b>   |   | <b>Course Intended Learning Outcomes (CILOs) of Intellectual Skills</b> |   |
| After completing this program, students would be able to:  |   | After participating in the course, students would be able to:           |   |
| B1-  | Consolidate the chemical, biochemical and physiological principles to construct the pharmacophores of the structure and their | b1-   | Identify proper position and orientation of each organ and structure. |



|            |  |            |  |
|------------|--|------------|--|
|            | effect on the stability, pharmacokinetic and pharmacodynamic profiles of the drug  |            |  |
| <b>B5-</b> | Interpret the prescriptions, patient and clinical data, Analysis all the encountered pharmaceutical problems and plan the strategies for their solution, to develop the health care. | <b>b2-</b> | Correlate anatomical facts with its major clinical applications. |

### Teaching And Assessment Methods For Achieving Learning Outcomes:

#### Alignment Learning Outcomes of Intellectual Skills to Teaching Methods and Assessment Methods:

| <i>Course Intended Learning Outcomes (CILOs) in Intellectual Skills.</i> |   | Teaching strategies/methods to be used. | <i>Methods of assessment</i>   |
|--|---|---|--|
| After participating in the course, students would be able to:            |   |   |  |
| <b>b1-</b>   | Identify proper position and orientation of each organ and structure. | Lectures<br>Seminars<br>Discussions     | Written Mid & final theoretical exams<br>Quizzes<br>assignment<br>Attendance |
| <b>b2-</b>   | Correlate anatomical facts with its major clinical applications.      |   |  |

### (C) Professional and Practical Skills.

#### Alignment Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Professional and Practical Skills

| Program Intended Learning Outcomes (Sub- PILOs) in Professional and Practical Skills |  | Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills |   |
|--|--|--|---|
| After completing this program, students would be able to:                            |  | After participating in the course, students would be able to:                  |   |
| <b>C5-</b>   | Conduct research studies and utilize the results in different pharmaceutical fields. | <b>c1-</b>   | Apply understanding of human anatomy on demonstration of evidence based practice. |

### Teaching And Assessment Methods For Achieving Learning Outcomes:

#### Alignment Learning Outcomes of Professional and Practical Skills to Teaching and Assessment Methods:



| Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills<br>After participating in the course, students would be able to: |   | Teaching strategies/methods to be used | Methods of assessment   |
|---|---|--|---|
| c1-   | Apply understanding of human anatomy on demonstration of evidence based practice. | Lectures<br>Seminars<br>Discussions    | Written Mid & final theoretical exams, Quizzes, Attendance Assignment |

| <b>(D) General / Transferable Skills:</b>   |  |  |  |
|---|--|--|--|
| Alignment Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: <b>General and Transferable skills</b>  |  |  |  |
| Program Intended Learning Outcomes (PILOs) in General / Transferable skills   |  | Course Intended Learning Outcomes (CILOs) in General / Transferable skills |  |
| After completing this program, students would be able to:   |  | After participating in the course, students would be able to:              |  |
| D2-   | Employ proper documentation and filing systems in different pharmaceutical fields                  | d1-  | Develop communication with the internet critically as a source of information about human anatomy. |
| D5-   | Apply information and communication technology and working effectively in a team.                  | d2-  | Organize working as a team member in collecting valuable information of evidence based practice.   |
| <b>Teaching And Assessment Methods For Achieving Learning Outcomes:</b>   |  |  |  |
| Alignment Learning Outcomes of General and Transferable skills to Teaching and Assessment Methods.  |  |  |  |
| Course Intended Learning Outcomes (CILOs) in General and Transferable Skills<br>After participating in the course, students would be able to: |  | Teaching strategies/methods to be used.                                    | Methods of assessment  |
| d1-   | Develop communication with the internet critically as a source of information about human anatomy. | Lectures<br>Seminars<br>Discussions  | Written Mid & final theoretical exams, Quizzes, assignment<br>Attendance                           |
| d2-   | Organize working as a team member in collecting valuable information of evidence based practice.   |  |  |



| V. Course Content:                      |                                    |                                  |                 |               |
|---|------------------------------------|----------------------------------|-----------------|---------------|
| 1 – Course Topics/Items:                |                                    |                                  |                 |               |
| a – Theoretical Aspect                  |                                    |                                  |                 |               |
| Order                                   | Topic List / Units                 | CILOs (symbols)                  | Number of weeks | Contact hours |
| 1.                                      | Introduction (Medical Terminology) | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 2.                                      | Skeletal System                    | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 3.                                      | Joints                             | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 4.                                      | Muscular System                    | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 5.                                      | Cardiovascular System              | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 2               | 4             |
| 6.                                      | Mid Exam                           | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 7.                                      | Lymphatic System                   | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 8.                                      | Respiratory System                 | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 9.                                      | Digestive System                   | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 10.                                     | Urinary System                     | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 11.                                     | Endocrine System                   | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 12.                                     | Nervous System                     | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 2               | 4             |
| 13.                                     | Review                             | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| 14.                                     | Final Exam                         | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1               | 2             |
| Number of Weeks /and Units Per Semester |                                    |                                  | 16              | 32            |



## VI. Teaching Strategies of the Course:

Lectures  
Seminars  
Discussions

## I. Schedule of Assessment Tasks for Students during the Semester:

| No.          | Assessment Method             | Week Due                      | Mark       | Proportion of Final Assessment | Aligned Course Learning Outcomes (CILOs symbols) |
|--------------|-------------------------------|-------------------------------|------------|--------------------------------|--|
| 1.           | Attendance and quizzes        | All Weeks                     | 5          | 5%                             | a1-3,b1-b2, c1                                   |
| 2.           | Homework-assignments          | Sporadic through the semester | 5          | 5%                             | a1,a2, a4, b1-2, c1, d1-2                        |
| 3.           | Theoretical mid-semester exam | 7 <sup>th</sup>               | 20         | 20%                            | a1, a2, a3, a4, b1, b2<br>c1, d1,d2              |
| 4.           | Final Exam (theoretical)      | 16 <sup>th</sup>              | 70         | 70%                            | a1, a2, a3, a4, b1, b2<br>c1, d1,d2              |
| <b>Total</b> |                               |                               | <b>100</b> | <b>100%</b>                    |  |

## II. Students' Support:

| Office Hours/week          | Other Procedures (if any) |
|----------------------------|---------------------------|
| Two contact hours per week | None                      |





|  |  |
|--|--|
| <b>III. Learning Resources:</b>                      |  |
| <b>1- Required Textbook(s) ( maximum two ).</b>      |  |
|  | There is a long list of anatomy books available in the faculty library for the student to choose from.<br>Course notes done by teaching staff. |
| <b>2- Recommended Books and Reference Materials.</b> |  |
|  | Course notes of Department theoretical books and practical manual (lectures and practical)<br>a  |
| <b>3- Electronic Materials and Web Sites etc.</b>    |  |
|  |  |

|  |  |
|--|--|
| <b>XIII. Course Policies: (including plagiarism, academic honesty, attendance etc)</b>             |  |
| The University Regulations on academic misconduct will be strictly enforced. Please refer to ----- |  |
| <b>1</b>   | <b>Class Attendance:</b> <ul style="list-style-type: none"> <li>Attendance of all lectures and practical sessions is required. Unexcused absence exceeding 25% of the lectures or practical sessions will disqualify the student from entering the final exam.</li> </ul>  |
| <b>2</b>   | <b>Tardy:</b> <ul style="list-style-type: none"> <li>Roll will be called in the very beginning of each lecture and practical class. Retardation for more than three weeks without a reasonable excursion, the student involved shall not be allowed to attend the class any longer and consequently shall be considered to be absent.</li> </ul> |
| <b>3</b>   | <b>Exam Attendance/Punctuality:</b> <ul style="list-style-type: none"> <li>Exam attendance is obligatory unless being excused by the department and faculty.</li> <li>Absence from assignments or exams will be dealt with according to the general policy of the university.</li> </ul>   |
| <b>4</b>   | <b>Assignments &amp; Projects:</b> <ul style="list-style-type: none"> <li>Assignments: Written and oral; Laboratory logbook signed by the responsible demonstrator.</li> <li>Projects: Not applicable.</li> </ul>  |
| <b>5</b>   | <b>Cheating:</b>   |





|   |   |
|---|---|
|   | <ul style="list-style-type: none"><li>Punishment of cheating will be according to the general policy of the university in this respect.</li></ul>   |
| 6 | <b>Plagiarism:</b> <ul style="list-style-type: none"><li>Plagiarism in written essays, reports, etc. is not accepted, and students who plagiarize the works of others will be punished according to the general policy of the university.</li></ul> |
| 7 | <b>Other policies:</b> <ul style="list-style-type: none"><li>General policies of the Students' Affairs of the University and the Quality Assurance Unit.</li></ul>  |

## Course Plan of Anatomy

### I. - Information about Faculty Member Responsible for the Course:

|                          |                        |              |     |     |     |     |     |
|--------------------------|------------------------|--------------|-----|-----|-----|-----|-----|
| Name of Faculty Member   | Prof Hassan Al-Shamahy | Office Hours |     |     |     |     |     |
| Location & Telephone No. |                        | SAT          | SUN | MON | TUE | WED | THU |
| E-mail                   |                        |              |     |     |     |     |     |

رئيس الجامعة  
إ.د. القاسم محمد عباس

مركز التطوير الأكاديمي وضمان الجودة  
إ.د. هدى العماد

عميد الكلية  
إ.د. خالد الشويه

وحدة ضمان الجودة  
إ.د. محمود البريهي



## II. Course Identification and General Information:

|     |   |   |         |     |        |       |
|-----|---|---|---------|-----|--------|-------|
| 1-  | Course Title:                                     | Anatomy   |         |     |        |       |
| 2-  | Course Number & Code:                             | Ph411   |         |     |        |       |
| 3-  | Credit hours: 1hrs                                | C.H   |         |     |        | Total |
|     |   | Th.   | Seminar | Pr. | F. Tr. |       |
|     |   | 2   | -       | -   |        | 2     |
| 4-  | Study level/year at which this course is offered: | 1 <sup>st</sup> level /1 <sup>st</sup> Semester |         |     |        |       |
| 5-  | Pre –requisite (if any):                          |   |         |     |        |       |
| 6-  | Co –requisite (if any):                           |   |         |     |        |       |
| 7-  | Program (s) in which the course is offered        | Bachelor of Pharmacy                            |         |     |        |       |
| 8-  | Language of teaching the course:                  | English   |         |     |        |       |
| 9-  | System of Study:                                  | Semesters                                       |         |     |        |       |
| 10- | Mode of delivery:                                 | Regular   |         |     |        |       |
| 11- | Location of teaching the course:                  | Faculty of Pharmacy-Sana'a University           |         |     |        |       |

## III. Course Description:

The general aim of this course is to enable students to become acquainted with the detailed structure and essential functions of those parts of the human body necessary for clinical practice, and centered anatomy to equip students to be able to function effectively as part of the general medical health-care team.

## IV. Intended Learning Outcomes (ILOs) of the Course:

At the end of this course the students should be able to:

1. Recognize Knowledge and understanding terms and planes of gross anatomy.
2. Describe the knowledge and understanding about the structure and essential function of each organ
3. Recall the knowledge about the body systems



4. Name and locate the major arteries and veins of the body and understanding the basic arrangement of the nervous system.
5. Identify proper position and orientation of each organ and structure.
6. Correlate anatomical facts with its major clinical applications.
7. Apply understanding of human anatomy on demonstration of evidence based practice.
8. Develop communication with the internet critically as a source of information about human anatomy.
9. Organize working as a team member in collecting valuable information of evidence based practice.

## V. Course Content:

### 1 – Course Topics/Items:

#### a – Theoretical Aspect

| Order | Topic List / Units                        | CILOs (symbols)                  | Week Due | Contact hours |
|-------|---|----------------------------------|----------|---------------|
| 1.    | <b>Introduction (medical terminology)</b> | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 1        | 2             |
| 2.    | <b>Skeletal system</b>                    | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 2        | 2             |
| 3.    | <b>Joints</b>                             | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 3        | 2             |
| 4.    | <b>Muscular System</b>                    | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 4        | 2             |
| 5.    | <b>Cardiovascular System</b>              | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 5,6      | 4             |
| 6.    | <b>Mid Exam</b>                           | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 7        | 2             |
| 7.    | <b>Lymphatic System</b>                   | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 8        | 2             |
| 8.    | <b>Respiratory System</b>                 | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 9        | 2             |
| 9.    | <b>Digestive System</b>                   | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 10       | 2             |
| 10.   | <b>Urinary System</b>                     | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 11       | 2             |
| 11.   | <b>Endocrine System</b>                   | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 12       | 2             |



|   |                |                                  |       |    |
|---|----------------|----------------------------------|-------|----|
| 12.                                     | Nervous System | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 13,14 | 4  |
| 13.                                     | Review         | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 15    | 2  |
| 14.                                     | Final Exam     | a1, a2, a3, a4, b1, b2 c1, d1,d2 | 16    | 2  |
| Number of Weeks /and Units Per Semester |                |                                  | 16    | 32 |

#### VI. Teaching strategies of the course:

Lectures  
Seminars  
Discussions

#### IV. Schedule of Assessment Tasks for Students During the Semester:

| No.   | Assessment Method             | Week Due                      | Mark | Proportion of Final Assessment | Aligned Course Learning Outcomes (CILOs symbols) |
|-------|-------------------------------|-------------------------------|------|--------------------------------|--|
| 5.    | Attendance and quizzes        | All Weeks                     | 5    | 5%                             | a1-3,b1-b2, c1                                   |
| 6.    | Homework-assignments          | Sporadic through the semester | 5    | 5%                             | a1,a2, a4, b1-2, c1, d1-2                        |
| 7.    | Theoretical mid-semester exam | 7 <sup>th</sup>               | 20   | 20%                            | a1, a2, a3, a4, b1, b2 c1, d1,d2                 |
| 8.    | Final Exam (theoretical)      | 16 <sup>th</sup>              | 70   | 70%                            | a1, a2, a3, a4, b1, b2 c1, d1,d2                 |
| Total |                               |                               | 100  | 100%                           |  |

#### V. Students' Support:

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إ.د. محمود البريهي



| Office Hours/week          | Other Procedures (if any) |
|----------------------------|---------------------------|
| Two contact hours per week | None                      |

## VI. Learning Resources:

### 1- Required Textbook(s) ( maximum two ).

There is a long list of anatomy books present in the faculty library for the student to choose from.  
Course notes done by teaching staff.

### 2- Recommended Books and Reference Materials.

Course notes of Department theoretical books and practical manual (lectures and practical)  
a

### 3- Electronic Materials and Web Sites *etc.*

## XIV. Course Policies: (including plagiarism, academic honesty, attendance etc)

The University Regulations on academic misconduct will be strictly enforced. Please refer to -----

### 1 Class Attendance:

- Attendance of all lectures and practical sessions is required. Unexcused absence exceeding 25% of the lectures or practical sessions will disqualify the student from entering the final exam.

### 2 Tardy:

- Roll will be called in the very beginning of each lecture and practical class. Retardation for more than three weeks without a reasonable excursion, the student involved shall not be allowed to attend the class any longer and consequently shall be considered to be absent.

### 3 Exam Attendance/Punctuality:

- Exam attendance is obligatory unless being excused by the department and faculty.
- Absence from assignments or exams will be dealt with according to the general policy of the university.



|   |   |
|---|---|
| 4 | <b>Assignments &amp; Projects:</b> <ul style="list-style-type: none"><li>Assignments: Written and oral; Laboratory logbook signed by the responsible demonstrator.</li><li>Projects: Not applicable.</li></ul>                                      |
| 5 | <b>Cheating:</b> <ul style="list-style-type: none"><li>Punishment of cheating will be according to the general policy of the university in this respect.</li></ul>  |
| 6 | <b>Plagiarism:</b> <ul style="list-style-type: none"><li>Plagiarism in written essays, reports, etc. is not accepted, and students who plagiarize the works of others will be punished according to the general policy of the university.</li></ul> |
| 7 | <b>Other policies:</b> <ul style="list-style-type: none"><li>General policies of the Students' Affairs of the University and the Quality Assurance Unit.</li></ul>  |

Republic of Yemen  
Ministry of Higher  
Education and Scientific  
Research  
Sana'a University  
Faculty of Pharmacy  
Quality Assurance Unit



الجمهورية اليمنية  
وزارة التعليم العالي والبحث العلمي  
جامعة - صنعاء  
كلية الصيدلة  
وحدة ضمان الجودة

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