

## COURSE DESCRIPTIONS

|                         |   |                   |  |                     |            |
|-------------------------|---|-------------------|--|---------------------|------------|
| <b>Faculty</b>          | Technical College   |                   |  |                     |            |
| <b>Department</b>       | Associate Nursing   | <b>NQF level</b>  | 6  |                     |            |
| <b>Course Title</b>     | Practical Anatomy and Physiology  | <b>Code</b>       | 60403143   | <b>Prerequisite</b> | -          |
| <b>Credit Hours</b>     | 1 hour  | <b>Theory</b>     | -  | <b>Practical</b>    | 1          |
| <b>Course Leader</b>    | Heba Al-shannaq   | <b>email</b>      | <a href="mailto:h.alshannaq@jadara.edu.jo">h.alshannaq@jadara.edu.jo</a>   |                     |            |
| <b>Lecturers</b>        | Dania Murshed<br>Nosibah Rahahleh<br>Nagham Obaidat   | <b>emails</b>     | <a href="mailto:d.murshed@jadara.edu.jo">d.murshed@jadara.edu.jo</a><br><a href="mailto:n.rahahleh@jadara.edu.jo">n.rahahleh@jadara.edu.jo</a><br><a href="mailto:na.obaidat@jadara.edu.jo">na.obaidat@jadara.edu.jo</a> |                     |            |
| <b>Lecture time</b>     |   | <b>Classroom</b>  |  | <b>Attendance</b>   | Fulltime   |
| <b>Semester</b>         | 2 <sup>nd</sup> semester  | <b>Production</b> | Oct/2025   | <b>Updated</b>      | March 2026 |
| <b>Type of Teaching</b> | <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Blended <input type="checkbox"/> Online |                   |  |                     |            |

### Short Description

This course is designed to provide students with in-depth practical exposure to the major human body systems and organs through structured laboratory sessions, diverse anatomical models, interactive simulations, and applied activities. The instructional approach promotes active learning, critical analysis, and the integration of theoretical knowledge with practical skills to support academic and professional development.

### Course Objectives

1. Demonstrate safe handling of anatomical models and laboratory equipment.
2. Relate anatomical knowledge to common clinical conditions.
3. Differentiate between normal and abnormal anatomy and physiological findings during basic physical assessment and laboratory demonstrations.
4. Demonstrate practical understanding of the functions and mechanisms of major body systems and organs through hands-on laboratory and clinical activities.
5. Apply anatomical and physiological concepts accurately during laboratory sessions and basic clinical practice.
6. Identify and describe body organs in terms of their location, structure, composition, and physiological function using models, specimens, and clinical simulations.
7. Integrate anatomical knowledge with physiological functions to explain normal body processes and common clinical conditions.
8. Use correct medical terminology effectively in verbal and written communication during laboratory and clinical practice.

### Course Intended Learning Outcomes (CILOs)

#### A. Knowledge - Theoretical Understanding

|   |
|---|
| a1. Relate anatomical knowledge to common clinical conditions.<br>a2. Identify and describe body organs in terms of their location, structure, composition, and physiological function using models, specimens, and clinical simulations.   |
| <b>B. Knowledge - Practical Application</b>   |
| a3. Demonstrate practical understanding of the functions and mechanisms of major body systems and organs through hands-on laboratory and clinical activities.   |
| <b>C. Skills - Generic Problem Solving and Analytical Skills</b>  |
| b1. Differentiate between normal and abnormal anatomy and physiological findings during basic physical assessment and laboratory demonstrations.<br>b2. Integrate anatomical knowledge with physiological functions to explain normal body processes and common clinical conditions.<br>b3. Apply anatomical and physiological concepts accurately during laboratory sessions and basic clinical practice.  |
| <b>D. Skills - Communication, ICT, and Numeracy</b>   |
| b4. Use correct medical terminology effectively in verbal and written communication during laboratory and clinical practice.  |
| <b>E. Competence: Autonomy, Responsibility, and Context</b>   |
| c1. Demonstrate safe handling of anatomical models and laboratory equipment.  |
| <b>Teaching and Learning Methods</b>  |
| <input checked="" type="checkbox"/> Face to Face Lectures <input checked="" type="checkbox"/> Brainstorming <input type="checkbox"/> Synchronous remote <input type="checkbox"/> Asynchronous remote<br><input type="checkbox"/> Presentation <input checked="" type="checkbox"/> Discussions <input type="checkbox"/> Research Project <input type="checkbox"/> Case Study<br><input type="checkbox"/> Field visit <input checked="" type="checkbox"/> Problem solving |
| <b>Assessment Methods</b>   |
| <input type="checkbox"/> Formative Assessment <input checked="" type="checkbox"/> Quiz <input checked="" type="checkbox"/> Lab Exam <input checked="" type="checkbox"/> Homework<br><input type="checkbox"/> Project Assessment <input type="checkbox"/> Oral Presentation <input checked="" type="checkbox"/> Midterm <input checked="" type="checkbox"/> Final Exam   |

| Course Contents |       |                                     |  |  |  |
|-----------------|-------|-------------------------------------|--|--|--|
| Week            | Hours | CILOs                               | Topics   | Teaching & Learning Methods  | Assessment Methods                               |
| 1.              | 1     | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | The Body as a Whole: <ul style="list-style-type: none"> <li>- Lab orientation and safety instructions</li> <li>- Identify safety signs and emergency equipment</li> <li>- Proper handling of models and microscopes</li> <li>- Identify major body systems using models</li> </ul> | Face to Face Lectures, Brainstorming, Discussions and Problem solving  | Midterm, Lab exam, Quiz, Homework and Final exam |
| 2.              | 1     | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | The Cells and Tissues of the Body <ul style="list-style-type: none"> <li>- Introduction to microscope use</li> <li>- Observe prepared tissue slides</li> <li>- Identify basic tissue types</li> </ul>  | Face to Face Lectures, Brainstorming, Discussions and Problem solving. | Midterm, Lab exam, Quiz, Homework and Final exam |

|              |   |                                     |  |  |   |
|--------------|---|-------------------------------------|--|--|---|
|              |   |                                     | Match tissue type with its function  |  |   |
| 3.           | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Blood and Cardiovascular System</p> <ul style="list-style-type: none"> <li>- Identify heart chambers and valves</li> <li>- Identify the cardiac cycle</li> <li>- Identify the conduction system of the heart</li> <li>- Practice measuring pulse rate blood pressure</li> <li>- Observe heart sounds (audio/video)</li> </ul> | Face to Face Lectures, Brainstorming, Discussions and Problem solving. | Midterm, Lab exam, Quiz, Homework and Final exam    |
| 4.           | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Respiratory System</p> <ul style="list-style-type: none"> <li>- Identify lung structures</li> <li>- Identify the physiology of respiration</li> <li>- Identify the physiology of gas exchange</li> <li>- Practice deep breathing exercises</li> <li>- Demonstrate incentive spirometry</li> </ul>                             | Face to Face Lectures, Brainstorming, Discussions and Problem solving. | Midterm, Lab exam, Quiz, Homework and Final exam    |
| Midterm exam |   |                                     |  |  |   |
| 5.           | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Nervous System</p> <ul style="list-style-type: none"> <li>- Identify major parts of the brain</li> <li>- Identify spinal cord and nerves</li> <li>- Demonstrate basic reflex tests</li> </ul> <p>-Observe sensory and motor responses</p>   | Face to Face Lectures, Brainstorming, Discussions and Problem solving. | Midterm, Lab exam, Quiz, Homework and Final exam    |
| 6.           | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Special Senses</p> <ul style="list-style-type: none"> <li>- Identify structures of Eye, Ear, Nose, Tongue.</li> </ul>   | Face to Face Lectures, Brain Storming, Discussions and                 | Final exam, Lab exam, Quiz, Homework and Final exam |

|     |   |                                     |  |   |   |
|-----|---|-------------------------------------|--|---|---|
|     |   |                                     | <ul style="list-style-type: none"> <li>- Discuss the type of stimulus</li> <li>- Discuss the pathway of impulses</li> </ul>  | Problem solving.  |   |
| 7.  | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Endocrine System</p> <ul style="list-style-type: none"> <li>- identify endocrine glands</li> <li>- Match hormones with their functions</li> <li>- Simple discussion on hormonal balance</li> </ul>  | Face to Face Lectures, Brain Storming, Discussions and Problem solving. | Final exam, Lab exam, Quiz, Homework and Final exam |
| 8.  | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Digestive System</p> <ul style="list-style-type: none"> <li>- Identify major digestive organs using anatomical models and charts.</li> <li>- Identify the four abdominal quadrants on charts</li> <li>- Locate major organs within each quadrant</li> <li>- Match each organ with its main function.</li> <li>- explanation of digestion using flow diagrams</li> </ul> | Face to Face Lectures, Brain Storming, Discussions and Problem solving. | Final exam, Lab exam, Quiz, Homework and Final exam |
| 9.  | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | <p>Genitourinary System</p> <ul style="list-style-type: none"> <li>- Identify kidney parts and nephron</li> <li>- Identify the functions of bladder, urethra, ureters</li> <li>- Identify the mechanism of action for kidneys</li> <li>- Practice simple fluid intake &amp; output charting</li> <li>- Discuss hydration and urine output</li> </ul>                       | Face to Face Lectures, Brain Storming, Discussions and Problem solving. | Final exam, Lab exam, Quiz, Homework and Final exam |
| 10. | 1 | a1,<br>a2,a3,b                      | The Skin (Integumentary  | Face to Face Lectures, Brain  | Final exam, Lab exam, Quiz,                         |

|                   |   |                                     |   |   |  |
|-------------------|---|-------------------------------------|---|---|--|
|                   |   | 1,b2,b3,<br>b4,c1                   | System)<br><ul style="list-style-type: none"> <li>- Identify layers of the skin using models</li> <li>- Recognize common skin conditions (pictures)</li> <li>- Demonstrate simple wound dressing</li> </ul><br><ul style="list-style-type: none"> <li>- Discuss infection prevention</li> </ul> | Storming,<br>Discussions and<br>Problem solving.                                    | Homework and<br>Final exam                                   |
| 11.               | 1 | a1,<br>a2,a3,b<br>1,b2,b3,<br>b4,c1 | Skeletomuscular System<br><ul style="list-style-type: none"> <li>- Identify major muscle groups</li> <li>- Demonstrate muscle contraction and relaxation</li> <li>- Match muscles with body movements</li> <li>- Simple stretching exercises</li> </ul>   | Face to Face<br>Lectures, Brain<br>Storming,<br>Discussions and<br>Problem solving. | Final exam, Lab<br>exam, Quiz,<br>Homework and<br>Final exam |
| <b>Final Exam</b> |   |                                     |   |   |  |

| <b>Infrastructure</b>       |   |
|-----------------------------|---|
| <b>Textbook</b>             | Martini, F. H., Nath, J. L., & Bartholomew, E. F. (2024). Fundamentals of anatomy & physiology (12th ed.). Pearson.   |
| <b>References</b>           | <ol style="list-style-type: none"> <li>1. Moini, (2016). Anatomy and Physiology for Health Professionals, (2<sup>nd</sup> Ed.), Jones and Bartlett learning.</li> <li>2. Moore, Dalley&amp;Agur, (2014). Clinically Oriented anatomy, Lippincott &amp; Williams.</li> <li>3. Peate, I. &amp; Nair, M. (2017). Fundamentals of Anatomy and Physiology: For Nursing and Healthcare Students (2<sup>nd</sup> Ed)</li> <li>4. Mosby's Anatomy and Physiology Coloring Book (2014), (2<sup>nd</sup> Ed). Mosby.</li> <li>5. Stanfield, P. S., Hui, Y. H., Cross, H. (2015). Essential Medical Terminology, Jones and Bartlett learning.</li> </ol> |
| <b>Required reading</b>     | <b>All references are required for reading</b>  |
| <b>Electronic materials</b> | <a href="http://highered.mheducation.com/sites/0073403628/information_center_view0/index.html">http://highered.mheducation.com/sites/0073403628/information_center_view0/index.html</a>   |
| <b>Other</b>                | <p><b>Safety:</b> Safety guidelines will be covered at the beginning of the semester. The following are to be added to the guidelines.</p> <ol style="list-style-type: none"> <li>1. Wearing a lab coat is mandatory.</li> <li>2. Follow all instructions provided by the instructor before, during, and after lab activities.</li> <li>3. Do not perform any procedure unless you have been taught, demonstrated competency, and received instructor approval.</li> <li>4. Report all accidents, injuries, or near misses immediately to the instructor — no matter how minor.</li> </ol>  |

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|  | 5. Always Maintain a professional attitude, avoid horseplay or distractions in the lab. Keep the lab environment clean, organized, and clutter-free to reduce hazards. |
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| Course Assessment Plan        |                            |       |       |    |    |    |    |    |    |    |
|-------------------------------|----------------------------|-------|-------|----|----|----|----|----|----|----|
| Assessment Method             |                            | Grade | CILOs |    |    |    |    |    |    |    |
|                               |                            |       | a1    | a2 | a3 | b1 | b2 | b3 | b4 | c1 |
| First (Midterm)               |                            | 30    | -     | 5  | 5  | 3  | 10 | 3  | 4  | -  |
| Second (if applicable)        |                            | -     | -     | -  | -  | -  | -  | -  | -  | -  |
| Final Exam                    |                            | 50    | -     | 10 | 10 | 8  | 12 | 6  | 4  | -  |
| Coursework                    |                            | 20    |       |    |    |    |    |    |    |    |
| Coursework assessment methods | Assignments                | -     | -     | -  | -  | -  | -  | -  | -  | 5  |
|                               | Case study                 | -     | -     | -  | -  | -  | -  | -  | -  | -  |
|                               | Discussion and interaction | 5     | 5     | -  | -  | -  | -  | -  | -  | -  |
|                               | Group work activities      | -     | -     | -  | -  | -  | -  | -  | -  | -  |
|                               | Lab tests and assignments  | 5     | -     | -  | -  | -  | -  | -  | -  | -  |
|                               | Presentations              | -     | -     | -  | -  | -  | -  | -  | -  | -  |
|                               | Quizzes                    | 10    | -     | 2  | 3  | 3  | 2  | -  | -  | -  |
| <b>Total</b>                  |                            | 100   | 5     | 17 | 18 | 14 | 24 | 9  | 8  | 5  |

| Plagiarism   |
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| <p>Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code).</p> <p>Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.</p> |