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| **Approval date:** |  | **Philadelphia University** |
| **Version: 1** | **Faculty: Allied Medical Sciences** |
| **Credit hours: 2** | **Department: Physiotherapy** |
| **Bachelor** | **Course Syllabus** | **Academic year 2022/2023** |

**Course information**

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| --- | --- | --- | --- |
| **Pre-requisite** | | **Course title** | **Course#** |
|  | | **Musculoskeletal Anatomy** | **1120111** |
| **Room #** | **Class time** | **Course type** | |
| **411** | **Sun: 8.15am - 9.15am**  **Tues: 8.15am - 9.15am** | University Requirement  Faculty Requirement  Major Requirement  Elective  Compulsory | |

**Instructor Information**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **E-mail** | **Office Hours** | **Phone No.** | **Office No.** | **Name** |
| **mjagannathan@philadelphia.edu.jo** | **Sun, Tue: 2 - 3pm**  **Mon, Wed: 8 - 9am**  **Mon: 1 - 3pm** | **0785302488** | **15409** | **Dr. J. Madhanagopal** |

**Course Delivery Method**

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| --- | --- | --- | --- |
| **Course Delivery Method** | | | |
| **Physical  Online  Blended** | | | |
| **Learning Model** | | | |
| **Physical** | **Asynchronous** | **Synchronous** | **Precentage** |
| **100%** |  |  |

**Course Description**

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| The course entails an advanced exploration of the gross anatomy structure of the human skeletal and muscular systems, including their vasculature, innervation, and joints. The location and structure of major components of the musculoskeletal system will be examined. The surface anatomy of the human body will be examined to identify skeletal markings, muscles, and related structures, and to locate major organs. The functional and clinical relevance of selected anatomical topics will be also discussed. The theory component is accompanied by laboratory course (1120112) and case studies. |

**Course Learning Outcomes**

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| --- | --- | --- | --- | --- | --- |
| **Corresponding Program outcomes** | **Outcomes** | | **Number** | |  |
| **Knowledge** | | | | |  |
| **KP1** | Describe the structure and functions of joints, muscles, bones, nerves and vessels of human body | | **K1** | | **1** |
| **KP1** | Demonstrate the surface palpation of muscles, bony landmarks, nerves, vessels and major organs on skeleton | | **K2** | | **2** |
| **Skills** | | | | |  |
| **SP1** | Display the joints, muscles, bones, nerves, vessels and major abdominal organs by palpation of skeleton | | **S1** | | **1** |
| **SP1** | Display the lobes of lung and heart on surface of chest of skeleton | | **S2** | | **2** |
| **Competencies** | | | | |  |
| **CP1** | | Ascertain the location of muscles, bony landmarks, nerves, vessels and major organs by palpation on human simulator | | **C1** | **1** |

**Learning Resources**

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| --- | --- |
| Snells Clinical Anatomy by regions, Lawrence E Wineski; 10th edition; 2018, Lippincott Williams and Wilkins. ISBN - 9781496345646 | Course textbook |
| Palpation Techniques, Surface Anatomy for Physical Therapist, Bernhard Reichert; 3rd edition; 2021, Thieme Publishing group. ISBN- 13 - 9783132429871 | Supporting References |
| [www.ebesco.com](http://www.ebesco.com) | Supporting websites |
| **Classroom**  **laboratory Learning platform Other** | Teaching Environment |

**Meetings and subjects timetable**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Material** | **Learning Methods** | **Topic** | **Week** |
| **Vision, Mission, Aim and LO of the Program**  **Text book Chapter 3** | Lecture | **Course syllabus, Vision, Mission, Aim and LO of the Program**  **Introduction to musculoskeletal anatomy**, Bones, muscles, joints, nerves, blood vessels, organs and surface palpation | **Week1**  **5 March & 7 March** |
| **Text book Chapter 3** | Lecture | **Shoulder complex**  Bones, joints, and blood vessels | **2**  **12 March & 14 March** |
| **Text book Chapter 3** | Lecture & Case based learning | **Shoulder complex**  Muscles, nerve supply, and clinical relevance | **3**  **19 March & 21 March** |
| **Text book Chapter 3** | Lecture & Case based learning | **Elbow complex**  Bones, joints, muscles, nerve supply, blood vessels, and clinical relevance | **4**  **26 March & 28 March** |
| **Text book Chapter 3** | Lecture &  Case based learning | **The Wrist and Hand complex**  Bones, joints, muscles, nerve supply, blood vessels, and clinical relevance | **5**  **2 April & 4 April** |
| **Text book Chapter 11** | Lecture | **Hip complex**  Bones, joints, and blood vessels | **6**  **9 April & 11 April** |
| **Text book Chapter 11** | Lecture & Case based learning | **Hip complex**  Muscles, nerve supply, and clinical relevance | **7**  **16 April & 18 April** |
| **Text book Chapter 11** | Lecture | **Knee complex**  Bones, joints, and blood vessels | **8**  **23 April & 25 April**  **Holiday: 23 and 24 April** |
| **Text book Chapter 11** | Lecture &  Case based learning | **Knee complex**  Muscles, nerve supply, and clinical relevance | **9**  **30 April & 2 May**  **Holiday: 1 May** |
| **Text book Chapter 11** | Lecture &  Case based learning | **Ankle and foot complex**  Bones, joints, muscles, nerve supply, blood vessels, and clinical relevance | **10**  **7 May & 9 May** |
| **Text book Chapter 2** | Lecture | **Spine**  Bones, joints, and blood vessels | **11**  **14 May & 16 May** |
| **Text book Chapter 2** | Lecture &  Case based learning | **Spine**  Muscles, nerve supply, and clinical relevance | **12**  **21 May & 23 May** |
| **Text book Chapter 12** | Lecture | **Skull**  Bones, joints, and blood vessels | **13**  **28 May & 30 May** |
| **Text book Chapter 12** | Lecture &  Case based learning | **Skull**  Muscles, nerve supply, and clinical relevance | **14**  **4 June & 6 June** |
|  | Tutorial | Revision | **15**  **11 June – 13 June** |
|  |  | **Final Exam** | **18-26 June** |
|  |  |  |  |

\* includes: Lecture, flipped Class, project- based learning, problem solving based learning, collaborative learning

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|  |

Online session

**Course Contributing to Learner Skill Development**

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| Using Technology |
| Learnt evidence based assessment tools in this course will develop their critical thinking and problem solving skills |
| Communication skills |
| Develops interpersonal skills while interacting with the simulator |
| Application of concepts learnt |
| Learnt concepts in this course will facilitate critical thinking, clinical reasoning and decision making skills while assessing the patients/simulator |

**Assessment Methods and Grade Distribution**

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| --- | --- | --- | --- |
| **Link to Course Outcomes** | **Assessment Time**  **(Week No.)** | **Grade Weight** | **Assessment Methods** |
| **K1, K2** | **7** | **30%** | **Midterm exam** |
| **K1, K2, S1, S2, C1** | **Quiz 1: 28 Marc**  **Quiz 2:18 April Quiz 3: 23 May**  **Assign: 10 May** | **30%** | **Term Work\***  **1) Quiz\* (10 %)**  **2) Quiz\* (10 %)**  **3) Quiz\* (10 %)**  **4) Assignment\* (10 %)** |
| **K1, K2, S1, S2, C1** | **16** | **40%** | **Final Exam** |
|  |  | **100%** | **Total** |

\* includes: quiz, in class and out of class assignment, presentations, reports, videotaped assignment, group or individual projects.

**Note: Best three marks will be taken for Term work (30%)**

**Alignment of Course Outcomes with Learning and Assessment Methods**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Assessment Method\*\*** | **Learning Method\*** | | **Learning Outcomes** | | | **Number** |
| **Knowledge** | | | | | | |
| **Exam&**  **Quiz** | Lecture | | Describe the structure and functions of joints, muscles, bones, nerves and vessels of human body | | | **K1** |
| **Exam** | Lecture & Case based learning | | Demonstrate the surface palpation of muscles, bony landmarks, nerves, vessels and major organs on skeleton. | | | **K2** |
|  |  | |  | | |  |
| **Skills** | | | | | | |
| **Exam, Quiz** | Lecture & Case based learning | | Display the joints, muscles, bones, nerves, vessels and major abdominal organs by palpation of skeleton | | | **S1** |
| **Exam, Quiz** | Lecture & Case based learning | | Display the lobes of lung and heart on surface of chest of skeleton | | | **S2** |
| **Competencies** | | | | | | |
| **Assignment** | | Lecture & Case based learning | | Ascertain the location of muscles, bony landmarks, nerves, vessels and major organs by palpation on human simulator | **C1** | |

\* includes: Lecture, flipped Class, project- based learning, problem solving based learning, collaborative learning

\*\* includes: quiz, in class and out of class assignment, presentations, reports, videotaped assignment, group or individual projects.

**Course Polices**

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| --- | --- |
| **Policy Requirements** | **Policy** |
| The minimum pass for the course is (50%) and the minimum final mark is (35%). | **Passing Grade** |
| * Missing an exam/term work without a valid excuse will result in a zero grade to be assigned to the exam or term work * A Student who misses an exam or scheduled assessment, for a legitimate reason, must submit an official written excuse within a week from the exam or assessment due date. * A student who has an excuse for missing a final exam should submit the excuse to the dean within three days of the missed exam date. | **Missing Exams** |
| The student is not allowed to be absent more than (20%) of the total hours prescribed for the course, which equates to six lectures days. If the student misses more than (20%) of the total hours prescribed for the course without a satisfactory excuse accepted by the dean of the faculty, she/he will be prohibited from taking the final exam and the grade in that course is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college, then withdrawal grade will be recorded. | **Attendance** |
| Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights | **Academic Honesty** |

**Program Learning Outcomes to be assessed in this Course**

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| --- | --- | --- | --- | --- |
| **Target Performance level** | **Assessment Method** | **Course Title** | **Learning Outcome** | **Number** |
| 75% of students have a minimum score 6 out of 10 | **Theory Exam &**  **Quiz** | **Musculoskeletal Anatomy for Physical therapist** | Demonstrate profound and contemporary knowledge in basic, clinical, medical, and psychosocial sciences relevant to the practice of physical therapy. | **KP1** |
| 75% of students have a minimum score 6 out of 10 | **Exam, Quiz** | **Musculoskeletal Anatomy for Physical therapist** | Develop critical analysis and decision-making skills and ability to integrate basic and clinical knowledge within an evidence-based framework. | **SP1** |
| 75% of students have a minimum score 6 out of 10 | **Assignment** | **Musculoskeletal Anatomy for Physical therapist** | Demonstrate competent entry-level skills and abilities to critically reason in terms of screening, evaluation, re-evaluation, diagnosis, prognosis, and development of a plan of care for clients and patients seeking physical therapy services. | **CP1** |

**Description of Program Learning Outcome Assessment Method**

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| --- | --- |
| **Detailed Description of Assessment** | **Number** |
| This intended program learning outcome (IPLO) will be assessed by theory exam (MCQ and Essay questions), and Quiz | **KP1** |
| This IPLO will be assessed by using exam and quiz The following rubrics will be used to evaluate the student’s skills. | **SP1** |
| This IPLO will be assessed by using out of class assignment. The following rubrics will be used to evaluate the student’s skills. | **CP1** |

**Assignment Question**

**1. Identify the following bony prominences, muscles, arteries and nerves on human skeleton.**

**a) greater tubercle**

**b) coracoid process**

**c) lateral epicondyle of humerus**

**d) pisiform bone**

**e) ulnar nerve**

**f) radial artery**

**g) brachioradialis**

**h) flexor pollicis longus**

**i) abductor pollicis brevis**

**Assignment Rubrics**

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Criteria** | **Weak (0-2)** | **Average (3-5)** | **Satisfactory (6-8)** | **Competent (9-10)** | **Score** |
| 1 | **Identify the main issue/ problem** | Unable to identify issue/problem in complex situations. | Able to identify an issue/problem in a complex situation but less able to assess adequately. | Able to identify a problem with clarity but moderately able to assess and justify the situation. | Able to identify issue/ problem in a complex situation and able to assess and justify the situation. | \_\_\_ x 2 |
| 2 | **Understanding of the issue/problem** | Unable to understand issue/problem in complex situations. | Able to understand issue/ problem in a complex situation but less able to assess adequately. | Able to understand issue/problem with clarity but moderately able to assess and justify the situation. | Able to understand issue/problem in a complex situation and able to assess and justify the situation. | \_\_\_ x 2 |
| 3 | **Information management** | Poorly updated the information and lack of correlation | Minimum updated information and needs improvement | Adequate updated information lack of correlation | High correlation of information with current trends and advances | \_\_\_ x 2 |
| 4 | **Relevance and List of references** | No relevance and fails to use the references in a correct way | Sufficient relevance, partially fulfill the required number of references | Good relevance, fulfill and appropriate use of references | Excellent relevance and exceed the required number of references | \_\_\_ x 1 |

**Guidelines for Assignment**

1. Use Times New Roman. The font size for headings is 14 and the font size for text is 12. Use 1.5 lines of spacing between sentences in the text.
2. **Use your own photograph taken on human simulator/skeleton (no download from google) for assignment with a word count of less than 500 words (2 pages).**
3. Write your assignment carefully, with more focus on the criteria of the rubrics provided in the course syllabus.
4. Use this plagiarism checker website, [https://www.check-plagiarism.com/,](https://www.check-plagiarism.com/) or Turnitin to check for plagiarism in your assignment. It’s free. Take a screen shot of your plagiarism report and submit it along with your assignment. Plagiarism should be less than 20%.
5. Assignments with more than 20% plagiarism will not be accepted and copy from your peer group/uploading assignment in unsupported format will also result in zero grade.
6. On or before May 10, 2023, submit your assignment via MOODLE.
7. Penalty for late submission: 15% of your marks per day.

**Note: Assignment should be submitted through Moodle only. Other forms of submission will not be accepted for grading. It is your responsibility to sort out any problem arises during assignment submission through Moodle. Suggestion: Please avoid last minute submission.**