Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Rehabilitation Sciences
Second Semester 2016-2017
Course Syllabus

Course Information	
Course Title	Kinesiology
Course Code	P.T 206
Prerequisites	PT 205
Course Website	N/A
Instructor	Zakariya H. Nawasreh, BPT, MS, PhD
Office Location	M5, level -4
Office Phone #	7201000 ext. 26937
Office Hours	
E-mail	zhnawasreh@just.eud.jo; Zhnawasreh84@gmail.com
Teaching Assistant(s) & email	
Date & Class Room	
Course credit	P.T 206: 2 credit hours; P.T 2323: 3 Credit hours (2 theoretical & 2 practical hours per week)

Course Description

This course will focus on learning the terminology and biomechanical concepts related to kinesiology. This course will focus on the basic anatomic and functional aspects of the human joints and how that related to the joints' movements. Additionally, this course will focus on the type of joints, osteokinematics, arthrokinematics, and open/ closed-packed positions for each joint. The introductory section of the course reviews the basic principles of human motions for each joint, the types of muscle contractions, and open and closed chain motion during simple and complex tasks. Then, this course will cover the kinesiology of the spine and upper extremities. The final section will cover the kinesiology of lower extremities and normal gait as well as the pathological gait. This course is given as two credit hours of theory per week. (Prerequisite: PT 205)

Textbook	
Title	Kinesiology of the Musculoskeletal System, Foundation for Rehabilitation
Author(s)	Donald A. Neumann
Publisher	MOSBY ELSEVIER
Year	2010
Edition	2nd Edition
Book Website	
Other references	Clinical Kinesiology and Anatomy, Lynn S. Lippert, F.A. Davis Company. Philadelphia, 2011, 5th edition; Kinesiology Application to pathological Motion by L. Gary Soderberg

Assessment		
Assessment	**Expected Due Date**	**Percentage**
First Exam		25%
Second Exam		25%
Assignments	TBA	10%
Final Exam	TBA	40%

Course Objectives	Percentage %
Identify the anatomical position and different body positions	5%
Explain the anatomical directions, references positions, planes of motions, axes of rotations	5%
Explain the types of muscle contractions and muscle roles during joint movements	10%
Identify the type of joints in human body	15%
Identify osteokinematics and arthrokinematics for each joint movement	20%
Identify the primary and secondary muscles for each movement	10%
Identify the open and closed packed positions	10%
Identify the normal and pathological movement patterns of human joints	10%
Analysis complex activities (i.e. gait analysis and exercise analysis)	15%

Course Content		
Week	**Topics**	**Chapter in Textbook (handouts)**
1	Introduction to kinesiology	Ch 1 & 2
2	Basic structure and function of human joints	Ch 2
3	Muscle contraction type and roles	Ch 3
4	Shoulder girdle & Joint **Exam 1**	Ch 5
5-6	Elbow and Forearm	Ch 6
7	Wrist, and Hand Joints	Ch 7 &8
8-9	Neck, Trunk, and Pelvic Girdle	Ch 9 &10
10	Hip Joints	Ch 12
11-12	Knee and patellofemoral complex	Ch 13
13	Ankle Joint and foot	Ch 14
14	Kinesiology of Gait	Ch 15

Additional Notes

Course Policies

1. Attendance and participation in lectures and labs is expected. As a JUST's student, it is expected that you assume responsibility for learning/understanding the material, and that you become an active participant in the learning process.

2. As a Physical Therapy student, you are expected to adopt behaviors, which will ensure courtesy, professional behavior and safety at all times. You should interact with each other and with the faculty as you would with patients and fellow health professionals.

3. The criteria to which you must adhere are listed below:

Lab clothing must be worn for all lab sessions unless otherwise instructed.

1. Avoid wearing any jewelry that might cause injury to your partner or self, or damage the equipment.
2. Professional behavior is expected at all times. Sample behaviors include:
   - Dignity, comfort, and safety must be provided.
   - BEING ON TIME FOR CLASS and prepared

• Giving your full attention to the speaker (not talking while speaker is presenting, not doing other work during class)

• Actively participating during class and lab (asks relevant and appropriate questions, answers questions, shares own experiences/thoughts..)

• NO GUM during lab.

4. You are responsible for the housekeeping and maintenance of the classroom/lab and proper care of the equipment. Please report any accidents, malfunctioning, or defective equipment to the course instructor immediately. Strict observation of all safety precautions is essential and mandatory.

5. If you are unable to be present for an announced exam (due to illness or emergency), you must notify the course instructor prior to the examination. Failure to give prior notification will result in a zero grade for the missed exam. A make-up date will be arranged only for excused absences (illness-will need MD note, or bereavement).

6. All assigned readings must be read PRIOR to the class for which they are designated.

7. Students are responsible for all material presented in lecture and labs. If the student is absent from class he or she is responsible for obtaining all materials. The professor, speakers and lab instructors reserve the right to refuse entrance to students who are late to class.

8. **Cheating in exams or homework assignments are completely unexpected. The instructor will strictly follow JUST's discipline system for cheating.**

Professional behavior is expected of students at all times. Attitude and professional behavior are a minimum criterion for passing this class. Repeated lack of professional behavior will result in failure of the course. Examples of unprofessional behavior include but are not limited to: missing classes (see attendance policy), tardiness, lack of attention for a speaker, talking to others during lecture, passing food during lecture, leaving a lecture prior to its completion without prior authorization of the instructor, working on other class material during class, using phone (for calling, texting, or internet purposes), inappropriate dress for labs, and sleeping during class.

Attendance policy:

- Students are expected to attend more than 90% of lectures If absence is more than 10% student will be banned from the course after electronic notification from the university through student e-mail..
- All absences will be entered electronically into the University site

Communication with instructor: Electronic-mail is the best way to reach me as I consistently check it. However students still can use the above listed phone numbers.

Cell phones: Please do not use cell phones in class or labs. If you are depended upon for anticipated emergencies please put cell phones on vibration and answer the phone outside the classroom. I WILL KEEP MY CELL PHONE IN MY OFFICE OR ON VIBRATION MODE DURING CLASS TIME. Unfortunately, I have to remove the student from class in case the phone rings.

Colorfully and abundantly illustrated, Kinesiology of th Musculoskeletal System: Foundations for Physical Rehabilitation presents this complex, scientific subject in a clinically relevant and accessible manner drawing you into th material. Written with an engaging style and a thorough appreciation of thetopic, author Donald A. Neumann helps you clearly understand th fundamental principles of kinesiology. With this helpful guide, you'll also explore th connection between anatomy and movement and th link between structure and function of th musculoskeletal System. Take a look a t these outs Full-color illustrations bring the kinesiology to life and provide the reader with a thorough understanding of the bookâ€™s concepts. Brachialis Biceps Brachioradialis. Brachioradialis.Â Furthermore, the skin in the associated region becomes vulnerable to injury because of the loss of sensation. Selective muscular paralysis results in a kinetic imbalance across the joint or joints, thereby increasing the likelihood of deformity. Consider, for example, a complete laceration of the median nerve at the level of the wrist. Paralysis of the muscles of the thenar eminence can completely disable the important movement of opposition of the thumb. With its focus on the normal and abnormal mechanical interactions between the muscles and joints of the body, Kinesiology of the Musculoskeletal System: Foundations for Rehabilitation, 3rd Edition provides a foundation for the practice of physical rehabilitation. This comprehensive, research-based core text presents kinesiology as it relates to physical rehabilitation in a clinically relevant and accessible manner. It provides students and clinicians with the language of human movement â€” and acts as a bridge between basic science and clinical management. Full-color anatomic and kinesiologic il