Philadelphia University	PHILADELPHIA UNIVERSITY THE WAY TO THE FUTURE	Approved Date: 8/10/2025

☐ Blended ■ Online ☐ Physical

Faculty: Allied Medical Sciences		Issue: 1
Department:- Physical therapy		Credit Hours: 1
Academic Year:2025/2026	**Course Syllabus**	Bachler:

Course Information

Course No.	Course Title	Prerequisite	
1120252	Exercise physiology	----------	
Course Type		**Class Time**	**Room No.**
☐ Univirsity Requirement ☐ Faculty Requirement ☐ Major Requirement ☐ Elective ■ Compulsory		**Lecture: mon: 20:00 – 21:00**	**online**

Course Level*				Hours No.*
☐ 6th	☒ 7th	☐ 8th	☐ 9th	1

Instructure Information

Name	Office No.	Phone No.	Office Hours	E-mail
Assistant Professor Dr.asmaa atwa	**09 15409**	**2465**	**Sat (10:15-11:15)** **Sun: (10:15-13:15)** **Tuesday:(10:15 – 12:15)**	**aatwa@philadelphia.edu.jo**

Delivery

Learning Model			
Percentage	Synchronous	Asynchronous	Physical
	100%		

Course Method

Course Description

This course helps students to develop competencies that are related to fitness evaluation, exercise and activity prescription, and training program development for individuals. Beginning with the basic physiological concepts of energy metabolism, pulmonary, cardiovascular, and muscular function, students examine in depth the responses of individuals to the stress of exercise. These physiological principles formulate the basis for the development of sound programs of exercise, training, wellness programs and physical rehabilitation.

Course Learning Outcomes

Number	Outcome	Corresponding Program Outcomes
Knowledge		
K1	Identify acute and chronic effect of exercise on different body systems	KP1
K2	Identify different energy systems to provide fuel for exercise	KP1
K3	Describe the physiologic and biochemical mechanisms responsible for fatigue bioenergetics during exercise.	KP2
K4	Describe the filed test assessments used to determine cardiorespiratory fitness and human performance.	KP3
Skills		
S1	Design the components of rehabilitation exercise program that are directed to rehabilitation goals of patients	SP1
S2	Select and interpret exercise tests performed according individual's physical status	SP1
S3	Design effective and safe exercise rehabilitation programs	SP3

Learning Resources

Course Textbook	Cheung, S. S., & Ainslie, P. N. (2022). Advanced environmental exercise physiology. 2nd edition. Human Kinetics. USA.
Supporting References	Davison, R., Smith, P. M., Hopker, J., Price, M. J., Hettinga, F., Tew, G., & Bottoms, L. (2022). Sport and Exercise Physiology Testing Guidelines: Volume I-Sport Testing. London: Routledge. ISBN 9781003045281
Supporting Websites	www.scinecedirect.com
Teaching Environment	☐ **Classroom** ☐ **laboratory** ■ **Learning Platform** ☐ **Other**

Meetings and Subjects TimeTable

Week	Topic	Learning Method*	Task	Learning Material
1	**Course syllabus, Vision, Mission, Aim and LO of the Program** Introduction to exercise physiology I	Lecture		Vision and Mission of the school of allied medical sciences Course Syllabus Powerpoint presenattion Text Book
2	Introduction to exercise physiology II	Lecture		Powerpoint presenattion Text Book,
3	Exercise bioenergetics I	Lecture problem-solving-based learning of case study		Powerpoint presenattion Text Book,
4	Exercise bioenergetics II	Lecture problem-solving-based learning of case study	Quiz	Powerpoint presenattion Text Book,
5	Acute and chronic effect of exercise on respiratory system I	Lecture		Powerpoint presenattion Text Book,
6	Acute and chronic effect of exercise on respiratory system II	Lecture problem-solving-based learning of case		Powerpoint presenattion Text Book

		study		
7	Circulatory response to acute or chronic exercise I	Lecture problem-solving-based learning of case study	**Assignment**	Powerpoint presenattion Text Book
8	circulatory response to acute or chronic exercise II	Lecture problem-solving-based learning case study	**quiz**	Powerpoint presenattion Text Book
MID exam				
9	response of nervous system to acute or chronic exercise I	Lecture problem-solving-based learning of case study		Powerpoint presenattion Text Book
10	response of nervous system to acute or chronic exercise II	Lecture problem-solving-based learning of case study presentation of assignment		Powerpoint presenattion Text Book
11	response of musculoskeletal system to acute or chronic exercise II	Lecture problem-solving-based learning case study		Powerpoint presenattion Text Book
12	Field tests I	Lecture problem solving-based learning case study		Powerpoint presenattion Text Book
13	Field tests II	Lecture problem-solving-based learning of case study		Powerpoint presenattion Text Book

14	Effect of exercise on renal system physiology	Lecture problem-solving-based learning of case study		Powerpoint presenattion Text Book
15	• **REVISION**	Lecture problem-solving-based learning of case study		Powerpoint presenattion Text Book
16	**Final exam**			

*Includes lecture, flipped Class, project-based learning, problem-solving-based learning, and collaboration learning.

Course Contributing to Learner Skill Development

Using Technology
Using Microsoft programs (word, PowerPoint), YouTube videos, Google and scientific websites
Communication Skills
Videos and home works discussion
Application of Concept Learnt
Transfer learnt information of physiology of exercise, guidelines of exercise test, and designing exercise programs

Assessment Methods and Grade Distribution

Assessment Methods	Grade	Assessment Time (Week No.)	Course Outcomes to be Assessed
Mid Term Exam	**% 30**	6-8 ^{the}	K1,K2, K3. K4
Term Works*	**% 30** **Quizzes :10 marks** **Assignments: 20 marks**	Continuous	S1,S2,S3
Final Exam	**% 40**	16 th	K1, K2,K3, k3 S1, S2, S3
Total	**%100**		

* Include: quizzes, in-class and out of class assignments, presentations, reports, Videotaped assignment, group or individual project.

Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Learning Method*	Assessment Method**
	Knowledge		
K1	Identify acute and chronic effect of exercise on different body systems	Lecture	Quizzes Exam

K2	Identify different energy systems to provide fuel for exercise	Lecture	Exam Quiz
K3	Describe the physiologic and biochemical mechanisms responsible for fatigue bioenergetics during exercise.	Lecture	Exam Quizzes
K4	Describe the field test assessments used to determine cardiorespiratory fitness and human performance.	Lecture	
	Skills		
S1	Design the components of rehabilitation exercise program that are directed to rehabilitation goals of patients	Lecture Problem-solving based learning	assignment quizes Exam
S2	Select and interpret exercise tests performed according individual's physical status	Lecture Problem-solving based learning Presentation of assignment	assignment quizes Exam
S3	Design effective and safe exercise rehabilitation programs	Lecture Problem-solving based learning	assignment quizes Exam

*Include: lecture, flipped class, project based learning, problem solving based learning, collaboration learning.
** Include: quizzes, in-class and out of class assignments, presentations, reports, videotaped assignments, group or individual projects.

Course Polices

Policy	Policy Requirements
Passing Grade	The minimum pass for the course is (50%) and the minimum final mark is (35%).
Missing Exams	• Missing an exam/term work without a valid excuse will result in a zero grade to be assigned to the exam or term work even late submission. • 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.
Attendance	The student is not allowed to be absent more than (20%) of the total hours

	prescribed for the course, which equates to 6 lecture days. If the student misses more than (20%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that is considered. The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it.
Academic Honesty	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

Program Learning Outcomes to be Assessed in this Course

Number	Learning Outcome	Course Title	Assessment Method	Targeted Performance Level
KP1	Demonstrate profound and contemporary knowledge in basic, clinical, medical, and psychosocial sciences relevant to physical therapy	Exercise physiology	Multiple choice questions & complete	70 of the students will achieve 6/10
KP2	Integrate knowledge and skills gained in basic, clinical, medical, and behavioral sciences and apply them to patient care	Exercise physiology	Multiple choice questions & complete	70 of the students will achieve 6/10
KP3	Develop an individualized appropriate plan of care based on information collected and assessment performed for each patient/ client.	Exercise physiology	Multiple choice questions & complete	70 of the students will achieve 6/10
SP1	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	Exercise physiology	Multiple choice question- & complete	70 of the students will achieve 6/10
SP3	Adhere to legal, ethical, and safe physical therapy practice that respects human dignity, culture, and	Exercise physiology	Multiple choice question-& complete	70 of the students will achieve 6/10

	diversity within a global society.			

Description of Program Learning Outcomes Assessment Method

Number	Detailed Description of Assessment
KP1	Multiple choice questions & complete
KP2	Multiple choice questions & complete
KP3	Multiple choice questions & complete
SP1	The assessment will based on students' ability: (1) to solve physiological response to exercise in exams, (2) to determine methods to assess physiological response to exercise as a MCQ-based questions and complete questions in the final exam
SP3	The assessment will based on students' ability: (1) to solve physiological response m to exercise in exams, (2) to determine methods to assess physiological response to exercise as a MCQ-based questions and complete questions solved in the final exam

Assessment Rubric of the Program Learning Outcomes

Rubrics

	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. Uncertain and unable to assess adequately.	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	**Analysis of the issue/problem**	Unable to analyze issue/problem in complex situations and uncertain and unable to assess adequately.	Able to analyze issue/ problem in a complex situation but less able to assess adequately.	Able to analyze issue/problem with clarity but moderately able to assess and justify the situation.	Able to analyze 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	Good relevance, fulfill and appropriate use of	Excellent relevance and exceed the required number of	___ x 1

			number of references	references	references	

Guidelines for Assignment

1. Use Times New Roman. The font size for headings is 14 and the font size for text is 12.
2. Use 1.5 lines of spacing between sentences in the text.
3. Limit your assignment to a word count of less than 500 words (maximum 2 pages).
4. Write your assignment carefully, with more focus on the criteria of the rubrics provided in the course syllabus.
5. Use this plagiarism checker website, 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%.
6. 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
7. Note: Assignment should be submitted through Moodle only within two weeks from its advertising to students. If a student failed to submit the assignment within this period, six degrees will be omitted from the total degrees. Also, if a student failed to submit the plagiarism of assignment within this period, additional six degrees will be also omitted from the total degrees. If a student refuses to present his assignment in front of his colleagues, five degrees will be omitted from the total marks of assignment

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.