THE EDUCATION UNIVERSITY OF HONG KONG

Course Outline

Part I

Programme Title	: Bachelor of Education (Honours) (Physical Education)
Programme QF Level	: 5
Course Title	: Principles of Exercise Physiology
Course Code	: PES3165
Department	: Health and Physical Education
Credit Points	: 3
Contact Hours	: 39 (30 hours of lecture & 9 hours of laboratory work)
Pre-requisite(s)	: Essentials of Human Anatomy and Physiology
Medium of Instruction	: English
Course Level	: 3

Part II

The University's Graduate Attributes and seven Generic Intended Learning Outcomes (GILOs) represent the attributes of ideal EdUHK graduates and their expected qualities respectively. Learning outcomes work coherently at the University (GILOs), programme (Programme Intended Learning Outcomes) and course (Course Intended Learning Outcomes) levels to achieve the goal of nurturing students with important graduate attributes.

In gist, the Graduate Attributes for Sub-degree, Undergraduate, Taught Postgraduate, Professional Doctorate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- **P**rofessional **E**xcellence;
- **E**thical **R**esponsibility; **&**
- **I**nnovation.

The descriptors under these three domains are different for the three groups of students in order to reflect the respective level of Graduate Attributes.

The seven GILOs are:

1. Problem Solving Skills
2. Critical Thinking Skills
3. Creative Thinking Skills

4a. Oral Communication Skills

4b. Written Communication Skills

5. Social Interaction Skills
6. Ethical Decision Making
7. Global Perspectives

1. Course Synopsis

Through lecture, laboratory work, and self-learning activities (e.g. video or flash application on website), students will acquire the physiological knowledge applicable to school settings and relevant to their future work, which includes teaching physical

education classes, coaching school sport teams, and organizing health-related activities.

2. Course Intended Learning Outcomes ($CILO_s$)

Upon completion of this course, students will be able to:

$CILO_1$: understand the various energy systems and their relationships to physical exercise and training, and apply the knowledge into daily training

$CILO_2$: understand how the body reacts and adapts to environmental stress (heat and humidity), and apply the knowledge into daily training and physical education lessons in school

$CILO_3$: understand the physiological effects of training on skeletal muscles (structure, type, contraction, and neural control), and apply the knowledge in sport team and/or physical education lessons to improve the performance.

$CILO_4$: classify the body composition and maturity level, and apply the knowledge into daily training and promote a healthy lifestyle.

$CILO_5$: identify the nutrition components and understand their functions during exercise, and apply the knowledge into daily training and promote a healthy lifestyle.

3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
Energy systems	*$CILO_1$*	Lecture and laboratory work
Adaptation of cardiovascular system to environments	*$CILO_2$*	Lecture and laboratory work
Muscle structures, neural control, and adaptation to training & resistance exercise	*$CILO_3$*	Lecture and laboratory work
Body composition and maturity	*$CILO_4$*	Lecture and laboratory work
Nutrition	*$CILO_5$*	Lecture

4. Assessment

Assessment Tasks	Weighting (%)	CILO
Group presentation	30%	*$CILO_{1,2,3,4,5}$*
Group laboratory report (words limit: 1500 words) (approx.. 3 students per group)	20%	*$CILO_{1,2,3}$*
Written examination	50%	*$CILO_{1,2,3,4,5}$*

5. Use of Generative AI in Course Assessments

Please select one option only that applies to this course:

☐ ***Not Permitted***: In this course, the use of generative AI tools is not allowed for any assessment tasks.

☑ ***Permitted***: In this course, generative AI tools may be used in some or all assessment tasks. Instructors will provide specific instructions, including any restrictions or additional requirements (e.g., proper acknowledgement, reflective reports), during the first lesson and in relevant assessment briefs.

6. Required Text(s)

McArdle, W.D., Katch, F.I., and Katch, V.L. (2014). *Exercise Physiology: Energy, Nutrition, and Human Performance* (8th ed.). Lippincott Williams & Wilkins.

7. Recommended Readings

Powers, S.K. & Howley, E.T. (2014). *Exercise Physiology: theory and Application to Fitness and Performance* (9th ed.). New York: McGraw-Hill Companies.

Wilmore, J.H., Costill, D.L., and Kenney, W.L. (2015). *Physiology of Sport and Exercise* (6th ed). Champaign, IL: Human Kinetics.

林正常 (2011)。運動生理學（第 4 版）。臺北：師大書苑有限公司。

8. Related Web Resources

American College of Sports Medicine
http://www.acsm.org
Australian Institute of Sport
http://www.ais.org.au/ais
Gatorade Sports Science Institute
http://www.gssiweb.org

9. Related Journals

British Journal of Sports Medicine
European Journal of Applied Physiology
International Journal of Sports Medicine
Journal of Applied Physiology
Journal of Science and Medicine in Sport
Journal of Sports Sciences
Journal of Strength and Conditioning Research
Medicine and Science in Sports and Exercise

10. Academic Honesty

The University upholds the principles of honesty in all areas of academic work. We expect our students to carry out all academic activities honestly and in good faith. Please refer to the Policy on Academic Honesty, Responsibility and Integrity (https://www.eduhk.hk/re/uploads/docs/00000000001633679892454 8BbN5). Students should familiarize themselves with the Policy.

11. Others

NIL