

PERM 4015 Marketing in Leisure Services (3,2,1) (E)

Prerequisite: PERM 2006 Organization and Administration in Physical Education and Recreation

The course covers the fundamental marketing knowledge of sport and recreation and its applications in the Western and Chinese sport industry. Upon completion of the course, students should be able to (1) understand the differences between services and physical product; (2) identify the role of marketing in leisure and sport services; and (3) apply the marketing knowledge in leisure and sport services.

PERM 4016 Outdoor Recreation (3,3,0)

Prerequisite: PERM 1317 Outdoor Pursuits

This course is to introduce fundamental knowledge and issues in outdoor recreation as well as in leading recreation activities. Upon completion of the course, students should be able to (1) comprehend the fundamentals of outdoor recreation; (2) understand the nature and outdoor resources for recreation; and (3) acquire essential skills to be leaders in outdoor recreational activities.

PERM 4017 Principles and Practice of Exercise and Weight Management (3,3,0)

This course introduces students to the scientific principles underlying the design of weight management programmes. It also provides students with an understanding of the obesity issues. It enables students to: (1) understand the health risks and the etiology of obesity; (2) introduce exercise prescription and intervention to combat obesity; and (3) understand the issue of obesity and weight control in physiological, sociological, and psychological context.

PERM 4895 Honours Project (3,*,*)

Prerequisite: PERM 3006 Research Methods

This course is a required project for all BA (Hons) in Physical Education and Recreation Management students. Students will pursue in-depth research on a specific topic of interest to the student under the guidance of appointed lecturers from the Department offering the course. Students are to consult with their advisers regarding the necessary field study, experimentation, library or archival research required, and how best to integrate this into their Honours Project.

This course enables students to initiate, conduct and write-up a research project in the physical education and recreation management field; to integrate the professional skills which have been taught in the preceding two years with specific application to a topic to produce a well-argued and documented report.

PHYS 1005 Introduction to Physics (3,3,0) (E)

This course introduces some basic concepts of physics with emphasis on real-life examples. It explores the fundamental physical principles in the workings of everyday objects and natural phenomena.

PHYS 1121 General Physics I (3,3,0) (E)

Prerequisite: AS-Level Physics, or O-Level Physics and Mathematics, or consent of the instructor

This course covers classical mechanics and thermodynamics at an introductory level. After a brief review of Newton's three laws, a number of applications illustrating the use of conservation laws with the help of calculus are discussed. This is followed by an elementary treatment of rigid body and fluid mechanics. The last part deals with thermal phenomena and the uses of statistical concepts in describing the gaseous state.

PHYS 1122 General Physics II (3,3,0) (E)

Prerequisite: PHYS 1121 General Physics I or consent of the instructor

Introductory concepts of electricity, magnetism, electromagnetic wave and optics will be presented.

PHYS 1160 Electronics (3,3,0) (E)

Co-requisite: PHYS 1170 Electronics Laboratory

This course aims at instilling the basic knowledge of electronic circuits, devices, and transducers (both for discrete components and integrated circuits). Operational knowledge of instruments for electrical measurement will be emphasized.

PHYS 1170 Electronics Laboratory (1,0,3) (E)

Co-requisite: PHYS 1160 Electronics or consent of the instructor
This is a laboratory course which provides a set of experiments complementing the course PHYS 1160 Electronics.

PHYS 1320 Experimental Physics I (2,0,3) (E)

Prerequisite: PHYS 1121 General Physics I or consent of the instructor

This course consists of a series of laboratory experiments (and lectures, for PHYS 1320) complementing the following courses: PHYS 1121-2 General Physics I & II.

PHYS 1330 Mathematical Methods of Physics (3,3,0) (E)

Prerequisite: MATH 1570 Advanced Calculus or consent of the instructor

Ordinary differential equations, partial differential equations, Fourier series, Fourier transform, Laplace transform, function of a complex variable, and applications to physics problems are discussed.

PHYS 1620 Introduction to Astronomy (3,3,0) (E)

Introductory astronomy, from the solar system to the large scale structure of the universe, will be presented to both science and non-science students. Physical concepts will be emphasized. Presentation will be mainly on a qualitative level.

PHYS 1640 Energy, Environment and Sustainability (3,3,0) (E)

Climate change and the depletion of energy resources are issues of major international concern in the contemporary world. The focus of this course is on the multiple and intricate relationships between energy, environment and sustainability issues. It allows students to fully understand the subject matter from both the natural science and social science perspectives. Through appropriate real-life examples, the course aims to guide students, in an exploration of viable alternative energy sources and to enable them to embark on a way of life that promotes a clean and sustainable use of energy resources. In addition to classroom learning, the teaching will be supplemented by field visits, demonstrations, group projects and debates.

PHYS 1650 Nano-Living: Impact of Nanoscience and Nanotechnology (3,3,0)

This course will popularize basic knowledge of nanoscience and nanotechnology, introduce an increasing range of pragmatic applications in daily life, establish critical consciousness of their social consequences (in environment, safety and human health), and prevent misleading.

PHYS 2005 Heat and Motion (3,3,0) (E)

Prerequisite: PHYS 1005 Introduction to Physics and MATH 1005 Calculus or consent of instructor

This course covers classical mechanics and thermodynamics pertaining to energy science applications. The concepts and theory of Newtonian mechanics will be introduced followed by applications to rigid body motions, wave propagation, and fluid dynamics. After presenting the laws of thermodynamics, the energy flow and energy conversion mechanisms in various thermodynamic processes will be examined.

PHYS 2006 Electricity and Magnetism (3,3,0) (E)

Prerequisite: PHYS 1005 Introduction to Physics and MATH 1005 Calculus or consent of instructor

This course introduces the basic concepts of electricity and magnetism as applied to energy technology fields. Topics include electrostatics, circuits, induction, motors, generators, alternating currents, transformers, electromagnetic waves and optics.