

TDHEC CORE MODULE DETAILS

Module Objective
Exercise Physiology & Anatomy I On completion of the module, students are expected to be able to: <ul style="list-style-type: none">• explain the changes in body metabolism and challenges to homeostasis during exercise;• explain the roles and physiological mechanisms of skeletal muscular system for maintaining normal functioning of body;• use the proper anatomical terminology to identify the bones of human skeleton, the articulations, the muscles and the landmarks in the surface anatomy involved in human movements and exercise; and• integrate knowledge and skills from various areas to identify problem and develop preliminary solution through interdisciplinary and authentic projects
Introduction to Food and Nutrition On completion of the module, students are expected to be able to: <ul style="list-style-type: none">• understand the relationship between food nutrition and health, with understanding of the function, metabolism and body requirements of the nutrients;• formulate a healthy and balanced diet with appropriate food choices for the general public based on estimated energy requirements;• understand the concept of food guide pyramids, dietary guidelines and principles of nutrition; and• integrate knowledge and skills from various areas to identify problem and develop preliminary solution through interdisciplinary and authentic projects
Resistance Training for General Public On completion of the module, students are expected to be able to: <ul style="list-style-type: none">• give instructions and advices to the proper and safe use of resistance training equipment;• utilize various resistance training methods and equipment to achieve different training goals; and• plan and implement targeted training programmes by adopting appropriate training principles and management considerations
Biostatistics for Social Behaviour On completion of the module, students are expected to be able to: <ul style="list-style-type: none">• understand the basic concepts in biostatistics;• organize, describe and analyse data independently and make reasoned judgements in various aspects of data;• formulate and apply hypothesis test of different types of probability distribution; and

Module Objective

- integrate knowledge and skills from various areas to identify problem and develop preliminary solution through interdisciplinary and authentic projects

Children & Adolescence Exercise Prescription

On completion of the module, students are expected to be able to:

- prescribe exercise training programs and protocols in consideration of the characteristics and pathophysiological concerns of children and adolescence;
- suggest solutions based on developed plan or guidelines for handling exercise training issues for children and adolescence; and
- apply training techniques and adaptation in delivering the exercise programs to meet specific needs for children and adolescence

Exercise & Nutrition Across the Life Span

On completion of the module, students are expected to be able to:

- explain the importance of nutrient intake for growth and maintenance in various life stages;
- provide exercise recommendations to various age groups to promote health;
- provide dietary suggestions to various age groups to enhance health according to the nutrition needs; and
- integrate knowledge and skills from various areas to identify problem and develop preliminary solution through interdisciplinary and authentic projects

Exercise Physiology & Anatomy II

On completion of the module, students are expected to be able to:

- explain the roles and physiological mechanisms of various body systems for maintaining human's life and normal functioning of body;
- explain the neural control of skeletal muscles in skeletal movement during exercise;
- explain the coordination of body systems to maintain homeostasis in response to external and internal stresses; and
- explain the acute responses and chronic physiological changes (adaptations) that occur in the body in response to exercise stress

Exercise and Public Health Promotion

On completion of the module, students are expected to be able to:

- understand the basic concept and characteristics of public health promotion, primary care and social determinants of health;
- design and conduct a health survey in sports area through applying the principles of public health and education;
- evaluate on a health promotion program in a systematic manner through applying principles and strategies of health promotion; and
- integrate knowledge and skills from various areas to identify problem and develop preliminary solution through interdisciplinary and authentic projects

Module Objective

Elderly Exercise Prescription

On completion of the module, students are expected to be able to:

- prescribe exercise training programs and protocols in consideration of the characteristics and pathophysiological concerns of elderly;
- suggest solutions based on developed plan or guidelines for handling exercise training issues for elderly; and
- apply training techniques and adaptation in delivering the exercise programs to elderly with special needs

Physical Fitness & Nutritional Assessment

On completion of the module, students are expected to be able to:

- understand the principles in performing physical fitness and nutritional assessments;
- perform physical fitness assessment and nutritional assessment to various population; and
- evaluate the physical fitness condition and nutritional status according to the assessment results

Principles & Practices in Weight Management

On completion of the module, students are expected to be able to:

- describe the causes of weight imbalance and its health implication;
- provide dietary recommendations for achieving and maintaining a set target weight for specific goal; and
- evaluate contemporary weight loss methods in the context of nutrition and fitness

Community Health & Fitness

On completion of the module, students are expected to be able to:

- identify and evaluate factors that contribute to promote community health;
- design and implement exercise training programs that can improve and maintain an individual's health; and
- evaluate the appropriateness of various types of exercise training programs in health promotion

Nutrition for Exercise Performance

On completion of the module, students are expected to be able to:

- describe the roles of nutrients in exercise performance;
- provide dietary recommendations to different population groups in order to optimize performance at exercise and sporting events; and
- identify and describe the classifications and action mechanisms of sport supplements

Psychology for Exercise & Health

Module Objective

On completion of the module, students are expected to be able to:

- identify characteristics and human behaviours considering physical, cognitive and psychosocial perspectives in different developmental stages across the lifespan;
- apply psychosocial theories in motivating physical activity participation in different age group; and
- apply interventions with psychosocial theories which leads to change behaviour in the context of sports and health

Information Technology Essentials – Health and Life Sciences

On completion of the module, students are expected to be able to:

- apply basic emerging digital knowledge and skills to solve problems in workplace and daily life;
- demonstrate awareness and knowledge of cybersecurity and digital ethics when accessing the internet and information systems;
- use appropriate tools/software to interactively control the smart/sensors devices for smart living;
- apply business intelligence tools to extract big data from external sources, transform and visualize in different formats to produce insight;
- apply libraries and programming techniques to solve complex data visualization tasks; and
- build different types of artificial intelligence applications through cloud platforms

Project

On completion of the module, students are expected to be able to:

- research on a reasonably complex business or technical problem and propose a possible
- solution for the employer of Industrial Attachment (IA) in the area of programme of study
- develop a project development plan, and monitor and report their project progress
- analyse, design, implement, and test a proposed solution
- work independently and collaboratively with others as a member of a project team;
- document and verbally present their work in a professional way.

Elements of Health and Wellness Coaching (I)

On completion of the module, students are expected to be able to:

- Apply health coaching techniques
- Identify nutritional guidelines to wellness and chronic disease management
- Adopt a multidisciplinary approach in health and wellness coaching
- Identify important sleep hygiene techniques
- Identify requirements for mental health wellness

Module Objective

- Identify ethics, guidelines and professional standard (roles, certification, career prospect) for health and wellness coaching
- Determine self-care practices (Client and Health Coach)

Elements of Health and Wellness Coaching (II)

On completion of the module, students are expected to be able to:

- Communicate effectively with clients and stakeholders
- Apply Motivational Interviewing Techniques with core skills of OARS to encourage behaviour change in clients
- Empower clients for self-discovery
- Develop personalized health plan for clients
- Advise clients on SMART goal setting for health behavioural change
- Monitor client progress and health outcome
- Handle case management

Fundamentals of Counselling

On completion of the module, students are expected to be able to:

- Carry out basic counselling
- Facilitate communication with different groups

Aging in Asian Society

On completion of the module, students are expected to be able to:

- Recognise cognitive effects of aging in an individual
- Recognise social effects of aging in an individual
- Identify techniques to promote aging in place

Injury Prevention & Management

On completion of the module, students are expected to be able to:

- Carry out basic safety precautions during exercise
- Identify and manage common injuries
- Conduct fall assessments and provide prevention advice

Industrial Attachment

On completion of the module, students are expected to be able to:

- apply learnt knowledge and technical / professional skills in the area of fitness and exercise nutrition to practice in a real industrial, commercial or organisational environment;
- handle assigned tasks in the workplace with appropriate work attitude and appropriate key skills, such as interpersonal skills and teamwork skills, personal management, problem solving skills and communication skills;
- identify their own strengths and weaknesses (in relation to working in a workplace) through reflection on experience gained in the attachment; and

Module Objective
<ul style="list-style-type: none">• acquire the knowledge and value of professional ethics in relation to workplace activities