

HEALTH AND FITNESS

1. Definition

The Health and Fitness area collectively concerns activities, behaviours, or policies pertaining to the maintenance or promotion of health, physical fitness, or wellbeing, and consists of two related sub-areas, which may differ in terms of intervention, strategies and goals as well as operative contexts:

- the area of *Health-Related Exercise*, concerning the promotion, design, and execution of exercise as a means to maximise health, prevent and/or treat disease, and ameliorate or cope with disability, under the various health and age conditions;
- the area of *Fitness (Personal or Group Training)*, concerning the promotion, design, and execution of exercise meant to enhance individual fitness levels and wellness, and to prevent disease in the healthy adult population.

2. Standard Occupations

2.1 Advanced Gym Instructor/ Personal Trainer

The *Advanced Gym Instructor/Personal Trainer* is a graduate in the area of sport and health science who is able to design, deliver and evaluate exercise programmes related to the maintenance of health and physical efficiency for apparently healthy or low-risk individuals, using appropriate exercise techniques, ensuring health and safety conditions, and with medical advice as needed.

2.2 Health-related Exercise Instructor/Specialist

The *Health-related Exercise Instructor/Specialist* is a graduate or post-graduate in the area of sport and health science who is particularly qualified to design, deliver and evaluate, in appropriate contexts and with medical advice as needed, training programs specifically tailored for the different age groups and health conditions, related to the maintenance and improvement of health and physical efficiency, to risk-factors prevention, movement re-education and rehabilitation, and to coping with chronic conditions or permanent disability.

2.3 Public Health Promoter

The *Public Health Promoter* is a graduate in the area of sport and health who is particularly able to develop, manage and promote all aspects of public health including exercise programs and physical activity promotion determined by policy frameworks defined at a local, regional, national or international level.

3. Activities

A. Generic Activities

- Generic 1.** Collection, analysis and interpretation of information about participants' health and fitness status, exercise and physical activity preference and goals.
- Generic 2.** Design, prescription, supervision and monitoring of safe and effective exercise and physical activity programs for apparently healthy or low-risk individuals. *
- Generic 3.** Provision and maintenance of participants' motivation using a variety of strategies to promote behaviour change and exercise or physical activity adherence. *
- Generic 4.** Refer to other health professionals as appropriate and control resources to ensure the health and safety of participants and application of emergency procedures where necessary. *
- Generic 5.** Assumption of responsibility, with an ethical attitude and frame of reference, and evaluation of own performance at all levels of practice.

B. Specific Activities

Health-Related Exercise Instructor/Specialist:

- Specific 1.** Do risk stratification of subjects before exercise prescription and exercise testing. Design, administer and evaluate graded exercise tests.
- Specific 2.** Design and implement public health educational programs of physical activity for the prevention of major risk factors and chronic disorders (e.g., obesity, diabetes, hypertension, etc.).
- Specific 3.** Design, administer and monitor, under medical supervision, training programs for re-education, rehabilitation or coping in special groups and conditions, such as post-traumatic, cardiac or pulmonary patients, or other chronic conditions or disability.

Public Health Promoter:

- Specific 1.** To participate in public health surveillance programs, searching and using scientific epidemiological evidence.
- Specific 2.** To plan, develop, promote, manage and evaluate public health and exercise programs.

4. Competences

A. Generic Competences

A graduate in the health and fitness area should typically be able to:

- Generic 1.** Demonstrate a systematic understanding of the key aspects of the study of health, fitness and physical activity promotion and the acquisition of detailed knowledge of anatomy, biology, physiology, biomechanics, psychology, nutrition and biochemistry. In addition, graduates should be able to collect significant information and understand issues related to public health and population needs, the social and political context, and physical activity promotion.
- Generic 2.** Demonstrate an ability to practically deploy established techniques of analysis and enquiry in health, fitness and physical activity promotion, including practical fitness instruction/applied exercise teaching, health and fitness assessment, exercise prescription, and motivation and behaviour change strategies. Ability to design, conduct, and evaluate exercise programs appropriate to counter sedentariness in the general population.
- Generic 3.** Demonstrate qualities and transferable skills necessary for employment and progression to other academic or professional qualifications including initiative, personal responsibility, decision-making and the utilisation of opportunities for life-long learning.
- Generic 4.** Recognise and respond to ethical and health and safety issues which directly pertain to the promotion of health, fitness and physical activity, and to exercise interventions, including relevant legislation and professional codes of conduct.
- Generic 5.** Demonstrate conceptual understanding that facilitates the development of arguments and problem-solving using ideas and techniques relevant to health and fitness.

B. Specific Competences

Health-Related Exercise Instructor/Specialist:

- Specific 1.** Apply the acquired scientific background to the understanding of risk stratification and graded exercise testing, with an ethical attitude and frame of reference.
- Specific 2.** Understanding the implications of physical activity for the organism at the various ages.
- Specific 3.** Capability to design, conduct, and evaluate exercise programs for children and for the elderly.
- Specific 4.** Sensibility for the problems of puberty and maturation, and of older age immobility, inactivity and disability, and specific skills to deal with them.

Public Health Promoter:

- Specific 1.** Select the appropriate physical activities and design public health and exercise programs for specific participants.
- Specific 2.** Promote the public health and exercise program and develop and apply strategies to encourage participants to adhere.

Specific 3. Co-ordinate, review and evaluate the implementation of public health and exercise programs.

C. Master level:

Health-Related Exercise Specialist:

1. Basic knowledge on traumas and other temporary or permanent disabilities or chronic disorders.
2. Understanding the implications of specific exercise programs, and capability to apply and implement the principles of movement therapy.
3. Understanding the interactions between the therapy prescribed by physicians and the exercise program, and capability to adjust the program accordingly.
4. Detailed knowledge of disease-specific findings, signs and symptoms increasing the risk of complications during exercise.

5. Learning Outcomes

A. Generic Learning Outcomes

A graduate in the Health and Fitness area should typically be able to:

- Generic 1.** Apply knowledge and critical understanding of well-established principles, theories and concepts from biology, anatomy, physiology, biomechanics, psychology, nutrition and biochemistry to a range of health and fitness contexts.
- Generic 2.** Apply the knowledge and understanding acquired in the areas of human and social biology, health psychology, and public health, with special respect to risk factors, lifestyle and social trends, to design, conduct, and evaluate exercise programs apt to effectively counter unhealthy habits and sedentarity, and sufficiently attractive and accessible to sustain motivation in the general population.
- Generic 3.** Demonstrate research and problem solving abilities by critically understanding methods of acquiring, interpreting and analysing information in the context of health and fitness to design, conduct and evaluate physical activity and exercise programmes for both apparently healthy or low-risk individuals, related to the maintenance and improvement of health and physical efficiency.
- Generic 4.** Plan, design and execute safe and effective health and fitness programs and activities using appropriate techniques and procedures for both apparently healthy or low-risk individuals, related to the maintenance and improvement of health and physical efficiency. Demonstrating readiness to apply with immediacy the knowledge and skills acquired to emergency procedures in a variety of situations to maintain participants' health and safety.

Generic 5. Demonstrate understanding of health and fitness through academic and professional reflective practice that enables the undertaking of further study with a higher degree of autonomy. Plan, execute and communicate a sustained piece of independent intellectual work using appropriate media.

B. Specific Learning Outcomes

Health-Related Exercise Instructor/Specialist:

Specific 1. Apply basic knowledge and understanding acquired in the biomedical, psychological, and training areas, to design specific training programs, ethically sensible and based on individual preconditions of age, health status, and functional capacity.

Specific 2. Design, conduct, and assess effective training programs specifically tailored for children or for the elderly, accounting for the specificities of growth and development, the aging process and age-related issues. Sensible attitude to such problems as the delicacy of psychophysical maturation and its wide implications for the growing organism, or the issues of old-age functional limitations, the relevance of mental status on general health, and the subjective notion of efficiency and wellbeing.

Specific 3. Readiness to apply with immediacy the knowledge and skills acquired in sport medicine and other health-related areas, to emergency procedures in the various situations.

Public Health Promoter:

5.1 Understand the concepts of epidemiology, and its role in prevention of disease, and apply different types of epidemiologic studies, in co-operation with other associated professionals, build and using appropriate techniques for data collection, collect and treat this information using scientific evidence, analyse bio-statistical information and use biostatistics software.

5.2 Plan and develop public health and exercise programs, based on population characteristics analyses, on the scientific epidemiological evidence, on the health policies, on the potential co-operation and on the resources analyses.

5.3 Develop and apply strategies to encourage participants to adhere and be motivated with the public health and exercise program, based on the data collection about participant' characteristics, barriers, motives of dropout, motivations, and use behaviour change strategies if necessary. Promote the public health and exercise program, using marketing strategies.

5.4 Manage public health and exercise program, co-ordinating the events, tasks, dates, schedule, facilities, materials and equipments, finances, and controlling the activity of the partnerships and employees. Review the progress of implementation of the public health and exercise program, based on the analysis of participants and co-operators, using appropriate techniques, and revise it if necessary

5.5 Evaluate the effect of the implementation of the public health and exercise program, based on the analysis of participants and co-operators, using appropriate techniques, make suggestions to improved the program, and develop new perspectives on policy, participation and practice of public health and exercise

C. Master level:

Health-Related Exercise Specialist:

1. Apply the knowledge and understanding acquired in such areas as exercise biology, sport medicine and traumatology, chronic disorders and limitations, and adapted physical activity, to design, conduct, and evaluate, with medical supervision as needed, specific adapted sport or movement therapy programs, apt to provide or support movement re-education and rehabilitation in post-traumatic conditions or other health impairment, or to cope with chronic diseases or disabilities.

In general, the learning outcomes imply knowledge, skills and attitudes that must satisfy qualitative criteria of modern content and high standards of excellence. As a rule, a Bachelor’s Degree in an aligned health field and extensive experience in exercise testing or rehabilitation should be a prerequisite to entering a Master program.

The main outcome should be the competence to design individual training programs depending on the individual’s preconditions, to integrate data from performance diagnosis and respective training prescriptions, to be able to organise different training sessions for different groups of populations, to document training programs and performance progress, and to motivate participants.

6. Curriculum Model

INITIAL ATTEMPT AT STRUCTURE AND CONTENT

Not for wider distribution

Biomedical area (theory and laboratory)	
Basic theoretical background	<ul style="list-style-type: none"> • Basic principles of biology and biochemistry • Human anatomy and physiology of the musculo-skeletal, cardiovascular and respiratory systems and the short and long term adaptations of these systems

	<p>to exercise</p> <ul style="list-style-type: none"> • Homeostatic control of body systems at rest and in response to exercise • Functional kinesiology and core stability in relation to exercise • Concepts and components of fitness • Energy systems • etc
Nutrition	<ul style="list-style-type: none"> • Inter-relationship between nutrition, health and exercise • Sources, functions and requirements for nutrients • Dietary reference values, healthy eating principles • Basic dietary assessment methodologies • Referral procedures • Principles of weight management • Role of nutrition in prevention of dietary related disorders • Nutrition for specific groups
Health Promotion/ Public Health	<ul style="list-style-type: none"> • Concepts of Public Health and Health Promotion • Planning, implementation, promotion and evaluation of public health and exercise programmes • Legal, ethical and practical aspects of public health and exercise interventions • International, national, regional and local agencies (public and private) involved in public health promotion and the range of relevant associated professionals • National health trends, systems, policies, strategies and funding • Exercise as primary and secondary intervention in health and disease • Health determinants and health inequalities
Health, Safety and Security	<ul style="list-style-type: none"> • Maintenance of the safe exercise environment • Risk assessment • Dealing effectively with accidents and emergencies • Child protection • Current health, safety and security legislation as it applies to the health and fitness industry • Customer needs in relation to health and safety

Psychology and human sciences
(mainly theory and some practice)

Motivation and Behaviour Change	<ul style="list-style-type: none"> • Physical and psychological benefits of exercise and a healthy lifestyle • Potential barriers to exercise participation • Principles, theories and determinants of behaviour change • Theoretical approaches and techniques of motivation and behaviour change • Motivational interviewing • Ethical issues in psychological interventions • Strategies to promote behaviour change and exercise adherence • Relapse and relapse prevention strategies
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Exercise science (mainly practice)	
The Health and Fitness Industry	<ul style="list-style-type: none"> • History and recent developments in the health and fitness industry • Size and make up of the industry including corporate and public facilities • Key national agencies • Scientific, social and political contexts of physical activity • Key roles and responsibilities of workers in health and fitness • Codes of ethical practice • Principles, policies and practice
Personal Training	<ul style="list-style-type: none"> • Advanced exercise instruction techniques • Psychology of personal training • Business of personal training: <ul style="list-style-type: none"> - marketing and sales - follow ups and enquiries - retaining clients - employment law - small business management • Professional values, ethics and legal responsibilities
Practical Fitness Instruction/ Applied Exercise Teaching	<ul style="list-style-type: none"> • Modes of exercise instruction including gym, exercise to music and aqua • Training principles • Practical exercise instruction to include: <ul style="list-style-type: none"> - planning and preparing activities - preparing clients for activity - teaching and adapting activities - bringing activities to an end and evaluating personal performance • Safe and effective exercise instruction • Planning, delivering and adapting sessions relative to: <ul style="list-style-type: none"> - differing objectives (aerobic and resistance)

	<ul style="list-style-type: none"> - different clients (groups and individuals) - availability of resources
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Field work/ internship (practice)	
Health and Fitness Assessment/ Exercise Prescription	<ul style="list-style-type: none"> • Health and fitness evaluation procedures • Laboratory and field tests • Analysis and interpretation of information relating to health status, fitness status, exercise experience and goals and needs • Principles of exercise prescription including authoritative guidelines • Design and implementation of safe and effective exercise programmes, under medical advice as required, for both apparently healthy, and low risk adults and for individuals from special groups • Monitoring and evaluation of exercise programmes

Dissertation (Intellectual)	
Self Management and Professional Development	<ul style="list-style-type: none"> • Planning and managing own performance, including time and stress management • Achieving an effective work/life balance to sustainable performance • Assessing own strengths and weaknesses in relation to the leisure manager's role and responding positively to criticism • Reflecting on own performance • Identifying own learning needs and preferred learning styles • Developing, and updating a realistic personal development plan • Embracing lifelong learning and continuing professional development