

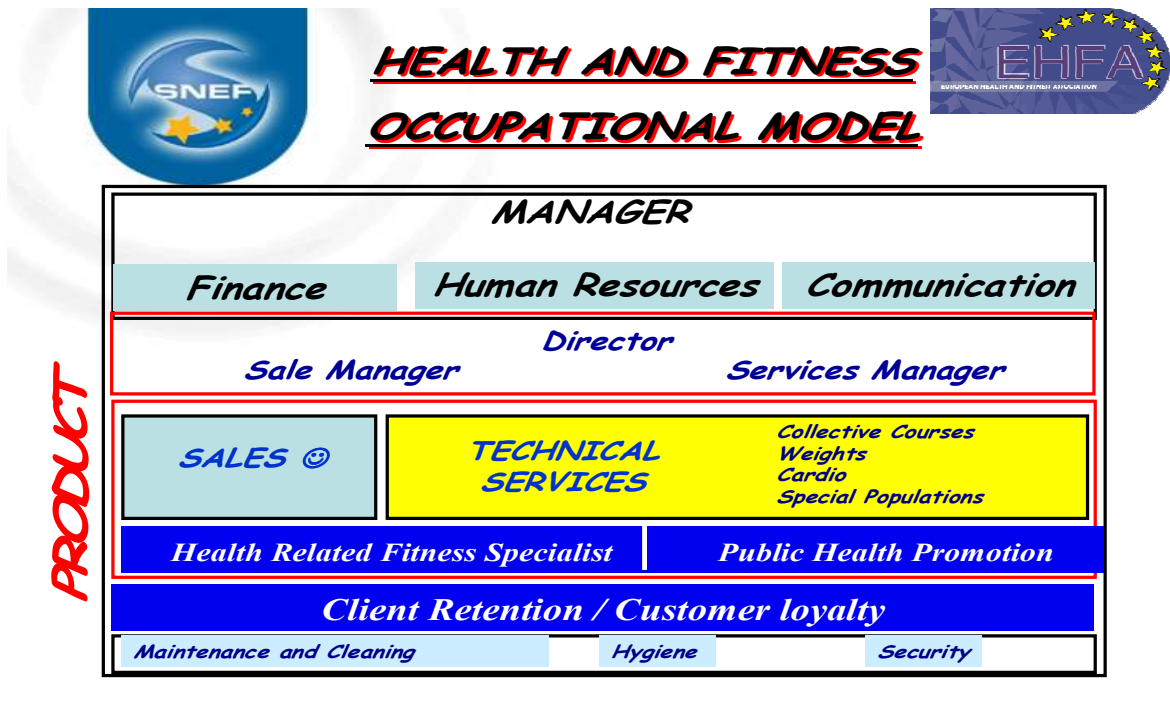
HEALTH AND FITNESS

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.

1. 1 Occupational Model



Model taken from the EHFA Vocational Standards and Functional Map Documents developed by Philippe Massebeuf of SNEF

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.

2.4 Health and Fitness Manager

The *Health and Fitness Manager* is a graduate who is able to manage all aspects of a health and fitness facility. The health and fitness manager assumes responsibility for financial management, marketing, promotion and sales, staff management, communications, quality control, programming the use of a facility, and strategic development. The manager will also oversee client retention, technical services, maintenance, hygiene and security.

3. Activities

GA. Generic Activities

Generic GA1. Collection, analysis and interpretation of information about participants' health and fitness status, exercise and physical activity preference and goals.

Generic GA2. Design, prescription, supervision and monitoring of safe and effective exercise and physical activity programs for apparently healthy or low-risk individuals.

Generic GA3. Provision and maintenance of participants' motivation using a variety of strategies to promote behaviour change and exercise or physical activity adherence.

Generic GA4. 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 GA5. Assumption of responsibility, with an ethical attitude and frame of reference, and evaluation of own performance at all levels of practice.

B. Specific Activities

B1 Advanced Gym Instructor/ Personal Trainer (AGIA)

AGIA 1: Plan, teach and bring to an end specific activity sessions to individuals and groups in a variety of exercise settings

AGIA 2: Plan and deliver personal training services

AGIA 3: Apply the principles of nutrition and weight management to a progressive physical activity programme

B2 Health-Related Exercise Instructor/Specialist (HREA)

HREA 1. Do risk stratification of subjects before exercise prescription and exercise testing. Design, administer and evaluate graded exercise tests.

HREA 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.).

HREA 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.

B3 Public Health Promoter: (PHPA)

PHPA 1. To participate in public health surveillance programs, searching and using scientific epidemiological evidence.

PHPA 2. To plan, develop, promote, manage and evaluate public health and exercise programs.

Health and Fitness Manager

HFMA 1. To manage the financial, human resources and communication functions of a health and fitness facility

HFMA 2. To manage the sales and the services within a health and fitness facility

4. Competences

A. Generic Competences

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

- GC 1.** Demonstrate an ability to use a range of information collection methodologies.
Ability to establish an effective rapport with their clients, collect information about their personal goals, lifestyle, medical and exercise history, exercise preferences and fitness level using interviews, a range of physical fitness assessments and other techniques suitable to the clients, record and analyse information, identify realistic and effective targets, identify with the clients any barriers to achieving these targets, research and identify with the clients physical activities to achieve their targets
- GC 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, and exercise prescription. Ability to design, conduct, evaluate and modify exercise programs appropriate to counter sedentariness in the general population.
- GC 3.** Demonstrate the use a range of motivation and behaviour change strategies to enable individuals to be enthusiastic and motivated about their goals and progress and provide the support they need to overcome obstacles and make long-term changes to their behaviour.
- GC 4.** Establish effective working relationships, define and agree roles and responsibilities, and agree common objectives and methods of communication with other professionals. Exchange accurate information with other professionals and respect professional boundaries. Respond to health and safety issues including planning how to minimise risk to individuals and ensure a working knowledge of emergency procedures and how to implement them.
- GC 5.** Recognise and respond to ethical 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. Review session and programme evaluations, identify personal strengths and weaknesses, research developments in the health and fitness sector and identify opportunities for further learning and personal development.

B. Specific Competences

Advanced Gym Instructor/ Personal Trainer

- AGIC 1.** Demonstrate an ability to instruct and prescribe a programme of activities for, cardio-vascular fitness, strength, endurance, flexibility, core stability and weight management for experienced and inexperienced clients, individuals and groups and for goals including physical, psychological, social, lifestyle and adherence.
- AGIC 2.** Demonstrate an understanding of the theory and practice of personal training, understanding the range of settings for personal training including the gym, the home and the outdoors. Utilise advanced fitness techniques

such as assisted activities, functional activities, assisted modifications and proprioception training. Apply an understanding the commercial realities and business models employed by both self-employed and employed personal trainers

AGIC 3. Apply nutrition and weight management strategies to clients. Understand the inter-relationship between nutrition, health and exercise; sources functions and requirements for nutrients; basic dietary assessment methodologies; referral procedures and principles of weight management.

Health-Related Exercise Instructor/Specialist:

HREC 1. Apply the acquired scientific background to the understanding of risk stratification and graded exercise testing, with an ethical attitude and frame of reference.

HREC 2. Understanding the implications of physical activity for the organism at the various ages.

HREC 3. Capability to design, conduct, and evaluate exercise programs for children and for the elderly.

HREC 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:

PHPC 1. Select the appropriate physical activities and design public health and exercise programs for specific participants.

PHPC 2. Promote the public health and exercise program and develop and apply strategies to encourage participants to adhere.

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

Health and Fitness Manager

HFMC 1. Apply business planning and financial management techniques to the health and fitness facility. Recruit, retain, lead and develop staff. Manage information and communications strategies for the business

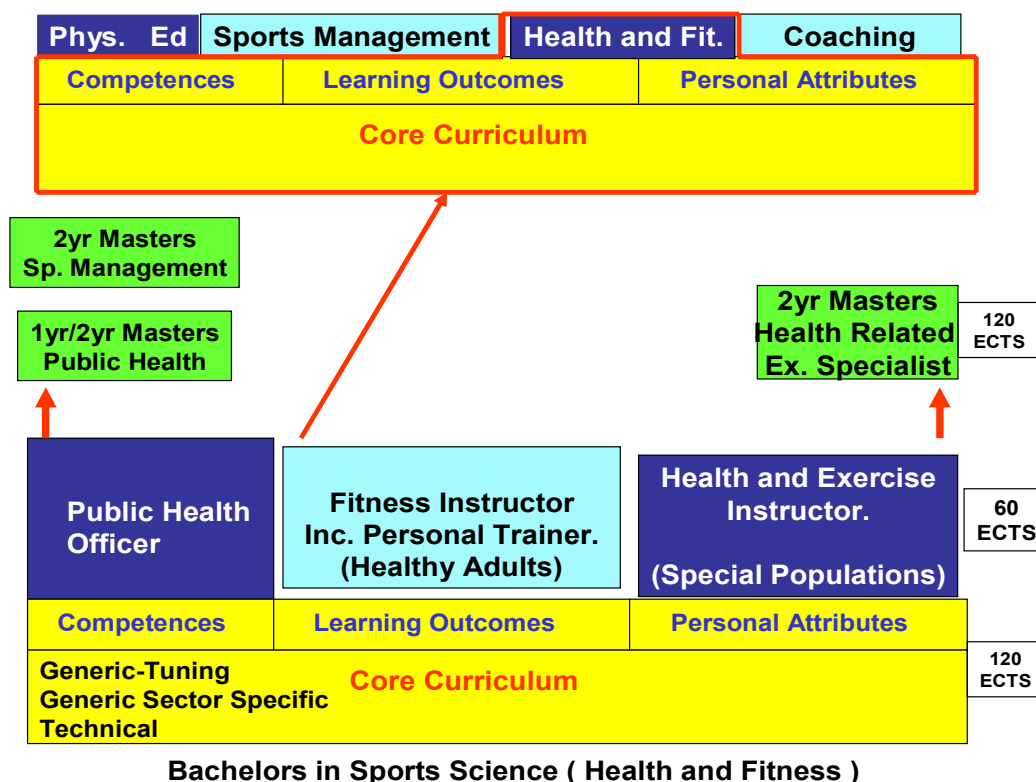
HFMC 2 Manage facilities and equipment, undertake service planning and quality management activities, take responsibility for customer care, manage events and projects and organise technical activities in line with the businesses objectives and health and safety and ethical considerations.

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.

LEARNING OUTCOMES AND CURRICULUM MODEL STEPS 5 – 6



5. Overall Aims, Learning Outcomes and Broad Descriptions

A. Overall Aims – Undergraduate Programme

The overall educational aims of an undergraduate programme in the area of health and fitness should be to:

- provide a programme of study that is academically challenging, vocationally relevant and cognisant of the moral, ethical and legal issues which underpin best practice
- develop knowledge, skills and competencies relevant to the provision of health and fitness services deemed relevant by appropriate national and international professional bodies
- develop a critical understanding of health and fitness related theories, principles and concepts recognising the multi-disciplinary nature of health and fitness
- foster the principles of life long learning and personal and professional development which contribute to career enhancement.

B. Generic Learning Outcomes (GLO)

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

GLO 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, demonstrating a systematic understanding of the key aspects of the study of health, fitness and physical activity promotion. In addition, graduates should be able to collect and interpret data and analyse significant information in the context of health and fitness and understand issues related to public health and population needs including the social and political context
GLO 2. Apply the knowledge and understanding acquired in the areas of practical fitness instruction/applied exercise teaching, 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.
GLO 3. Demonstrate research and problem solving abilities by evidencing a critical understanding of the scientific and behavioural principles and theories relating to 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 that are sufficiently attractive and accessible to sustain motivation in the general population.

GLO 4. Interact with, lead and manage groups and individuals in professional and vocational settings evidencing critical self awareness and the ability to assimilate and synthesise information from a variety of different sources and utilise it effectively to solve problems within own boundaries of professional competence and with due regard for health and safety.

GLO 5. Demonstrate conceptual understanding that facilitates the development of arguments and problem-solving using ideas and techniques relevant to health and fitness. 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. 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.

C. Specific Learning Outcomes (SLO-AGI)

In addition to the above generic learning outcomes a graduate advanced gym instructor/personal trainer should typically be able to:

Advanced Gym Instructor/ Personal Trainer

- SLO-AGI 1** demonstrate a critical understanding of the concepts and components of fitness and how they can be assessed including definitions of fitness: physical fitness; health-related fitness; wellness: components of fitness: aerobic capacity, muscular strength, muscular resistance, flexibility, body composition: principles of fitness including FITT(A) principles, overload, specificity and reversibility.
- SLO-AGI 2** demonstrate a critical understanding of the national and international context of health and fitness including; history and recent developments in the health and fitness industry; size and make up of the industry including corporate and public facilities; key national and international agencies e.g. European Health and Fitness Association; scientific, social and political contexts of physical activity; key roles and responsibilities of workers in health and fitness.
- SLO-AGI 3.** Principles of Health and fitness management to include marketing in the health and fitness industry; self employment, sales and promotion; financial planning; leadership, teamwork and conflict management; customer care; employment law.
- SLO-AGI 4.** demonstrate knowledge and critical understanding of the application of theory relating to the inter-relationship between nutrition, health and exercise, sources, functions and requirements for nutrients and fluid,

national and international dietary reference values, healthy eating principles, basic dietary assessment methodologies, principles of weight management, the role of nutrition in prevention of dietary related disorders, nutrition during the life-span/for specific group, and where appropriate and outside boundaries of professional competence as a health and fitness professional referral procedures to qualified diet and nutrition professionals.

Health-Related Exercise Instructor/Specialist: (SLO-HRE)

- SLO-HRE 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.
- SLO-HRE 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.
- SLO-HRE 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: (SLO-PHP)

- SLO-PHP 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.
- SLO-PHP 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.
- SLO-PHP 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.
- SLO-PHP 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

SLO-PHP 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

Health and Fitness Manager (SLO-HFM)

In addition to the above generic learning outcomes a graduate health and fitness manager should typically be able to:

SLO-HFM 1. demonstrate a critical understanding of the wider role of fitness and leisure in society and the specific nature of management in a health and fitness facility including: an understanding of the service concept and product mix and relevant legislation and ethical considerations pertaining to health and fitness.

SLO-HFM 2. demonstrate a critical understanding of the theories, concepts and practical application of professional skills in health and fitness management: facility management, financial management, marketing, service planning and quality management, event and project management, information management, recruitment and retention of staff, health and safety, and customer care.

SLO-HFM 3. demonstrate a critical understanding of the specific nature of the importance of sales and retaining members in a health and facility and how sales and customer loyalty can be maximised

D. 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

STANDARD OCCUPATION	Advanced Fitness Instructor/Personal Trainer
PERIOD OF TIME	Bachelor (3 years)
Programme AIMS	<p>The overall educational aims of an undergraduate programme in Advanced Fitness Instruction/Personal Training in the area of Health and Fitness should be to:</p> <ul style="list-style-type: none"> • provide a programme of study that is academically challenging, vocationally relevant and cognisant of the moral, ethical and legal issues which underpin best practice • develop knowledge, skills and competencies relevant to the provision of health and fitness services deemed relevant by appropriate national and international professional bodies • develop a critical understanding of health and fitness related theories, principles and concepts recognising the multi-disciplinary nature of health and fitness • foster the principles of life long learning and personal and professional development which contribute to career enhancement.
BROAD Generic and Specific Learning Outcomes (GLO and SLO)	<p>A graduate Advanced Gym Instructor/Personal Trainer in the Health and Fitness area should typically be able to:</p> <p>GLO 1. LOG1-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, demonstrating a systematic understanding of the key aspects of the study of health, fitness and physical activity promotion. In addition, graduates should be able to collect and interpret data and analyse significant information in the context of health and fitness and understand issues related to public health and population needs including the social and political context</p> <p>GLO 2. apply the knowledge and understanding acquired in the areas of practical fitness instruction/applied exercise teaching, 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 sedentarily.</p> <p>GLO 3. demonstrate research and problem solving abilities by evidencing a critical understanding of the scientific and behavioural principles and theories relating to 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 that are sufficiently attractive and accessible to sustain motivation in the general population.</p> <p>GLO 4. interact with, lead and manage groups and individuals in professional and vocational settings evidencing critical self awareness and the ability to assimilate and synthesise information from a variety of different sources and utilise it effectively to solve problems within own boundaries of professional competence and with due regard for health and safety.</p> <p>GLO 5. demonstrate conceptual understanding that facilitates the development of arguments and problem-solving using ideas and techniques relevant to health and fitness. 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. 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,</p>

	execute and communicate a sustained piece of independent intellectual work using appropriate media						
	<p>SLO-AGI 1 demonstrate a critical understanding of the concepts and components of fitness and how they can be assessed including definitions of fitness: physical fitness; health-related fitness; wellness: components of fitness: aerobic capacity, muscular strength, muscular resistance, flexibility, body composition: principles of fitness including FITT(A) principles, overload, specificity and reversibility.</p> <p>SLO-AGI 2 demonstrate a critical understanding of the national and international context of health and fitness including; history and recent developments in the health and fitness industry; size and make up of the industry including corporate and public facilities; key national and international agencies e.g. European Health and Fitness Association; scientific, social and political contexts of physical activity; key roles and responsibilities of workers in health and fitness.</p> <p>SLO-AGI 3. Principles of Health and fitness management to include marketing in the health and fitness industry; self employment, sales and promotion; financial planning; leadership, teamwork and conflict management; customer care; employment law.</p> <p>SLO-AGI 4. demonstrate knowledge and critical understanding of the application of theory relating to the inter-relationship between nutrition, health and exercise, sources, functions and requirements for nutrients and fluid, national and international dietary reference values, healthy eating principles, basic dietary assessment methodologies, principles of weight management, the role of nutrition in prevention of dietary related disorders, nutrition during the life-span/for specific group, and where appropriate and outside boundaries of professional competence as a health and fitness professional referral procedures to qualified diet and nutrition professionals.</p>						
Link between L O and CCS	GLOG-1 GLOG-2 GLOG-3	GLOG-1 GLOG-2 GLOG-3	SLO-8	GLO-2 GLO-3 GLO-4 GLO-5 SLO-6	GLO-4 GLO5	GLOG-1 GLOG-2 GLOG-3	
Curriculum Content Structure (CCS)	<p>Natural and Biological Sciences</p> <p>General General Biology, Biomechanics, Anatomy and Physiology</p> <p>Applied Exercise Physiology, Exercise Assessment and Prescription</p>	<p>Human and Social Sciences</p> <p>General General Sociology and Psychology</p> <p>Applied Exercise Psychology, Public Health Promotion</p>	<p>Health Sciences</p> <p>General Nutrition and Biochemistry</p> <p>Applied Nutrition in Health and Disease, Sports Nutrition</p>	<p>Practical Fitness Activities</p> <p>Applied Exercise Teaching / Practical Fitness Instruction</p>	<p>Work Experience and Continuing Professional Development</p>	<p>Research Methods and Scientific Work</p>	<p>Elective Studies</p> <p><i>These provide the HE institution and the student the opportunity to offer and study programmes that reflect the academic and vocational expertise of staff</i></p>
Programmes/units and Modules Structure	<p>PC1-Basic Anatomy and Physiology</p> <p>PC2-Basic</p>	<p>PC5-Psychological Foundations in Health and Fitness</p>	<p>PC8-Nutrition and Biochemistry</p> <p>PC9-Nutrition in Health and</p>	<p>PC11-Applied Exercise Teaching Group Exercise</p> <p>PC12-Applied</p>	<p>PC13-Work Experience</p> <p>PC14 Continuing Professional</p>	<p>PC15-Research Methods</p> <p>PC16 Dissertation or Work-Based</p>	

Headings (PCs)	Biomechanics PC3 -Applied Exercise Physiology PC4 -Exercise Assessment and Prescription	PC6 -Applied Exercise Psychology PC7 -Public Health Promotion	Disease PC10 -Nutrition for Sport and Exercise	Exercise Teaching Gym-based Exercise	Development	Project	
Programme content	Detail in following Section of Model	Detail in following Section of Model	Detail in following Section of Model	Detail in following Section of Model	Detail in following Section of Model	Detail in following Section of Model	
STUDY LOAD	ECTS number To be agreed	ECTS number To be agreed	ECTS number To be agreed	ECTS number To be agreed	ECTS number To be agreed	ECTS number To be agreed	ECTS number To be agreed
METHOD	1. Lectures 2. Practical Group Work	1.Lectures 2.Seminars	1. Lectures 2. Seminars 3. Practical group Work	1.Lecture 2. Practical Group Work	1. 2.Working group	1.Lecture 2.Working group	As appropriate
ASSESSMENT	1. Final Examinations 2. Formative and Summative Evaluation of Practical Skills and Competences	1.Final Examination 2. Written Report	1.Final Examination 2. Written Report	1. Examination 2. Formative and Summative Evaluation of Practical Skills and Competences 3. Written Report	1. Written Reports	1. Final evaluation	As appropriate
TRAINING ROUTES	1. Formal 2. E-learning	1. Formal 2. E-learning	1. Formal 2. E-learning	1. Formal 2. Informal 3. Work-based	1. In work / Work-based	1. Formal 2. Continuous personal professional development 3.E-learning	As appropriate

Programme Content -PC1

Programme/Module Title	BASIC ANATOMY AND PHYSIOLOGY		
Module Number	ECTS	Hours	Level
	?	?	1
Purpose	<p>To provide students with an introduction to basic anatomy and physiology and applications to health and fitness contexts through the study of body organ systems.</p> <p>Students should be engaged in laboratory and/or field work.</p>		
Learning Outcomes	<p>On completion of this programme/module students should have:</p> <p>developed knowledge and understanding of the structure and function of the cardiovascular, endocrine, muscular, skeletal, nervous, renal and respiratory body organ systems</p> <p>developed knowledge and understanding of acute responses to exercise and chronic adaptations to training in the cardiovascular, muscular and respiratory body organ systems</p> <p>developed skills in planning, organising and performing laboratory and field experiments, collecting and analysing relevant data at rest and during exercise to evaluate physical fitness</p> <p>collected, presented, analysed and interpreted data</p>		
Content	<p>Structure and function of the cardiovascular, endocrine, muscular, skeletal, nervous, renal and respiratory body organ systems</p> <p>Acute responses to exercise in the cardiovascular, muscular and respiratory body organ systems</p> <p>Chronic adaptations to training in the cardiovascular, muscular and respiratory body organ systems</p> <p>Energy systems</p> <p>Control and regulation in the human body: an overview of the nervous and endocrine body systems</p> <p>Homeostasis: thermoregulation an example of an integrated physiological responses</p> <p>Laboratory and field data collection, presentation, analysis and interpretation</p>		
Assessment	<p>Examination of theoretical aspects</p> <p>Practical assessment of vocational skills and competences</p>		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. Independent learning can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>		
Training Routes	<p>Formal</p>		

Programme Content –PC2

Programme/Module Title	BASIC BIOMECHANICS		
Module Number	ECTS	Hours	Level
	?	?	1
Purpose	<p>To provide students with an introduction to the fundamental principles of biomechanics and human movement and application to the health and fitness context.</p> <p>Students should be engaged in collecting, processing and analysing biomechanical data.</p>		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • describe qualitatively and quantitatively the application of mechanical principles to human movement • collect, analyse and interpret data using a range of equipment 		
Content	To be added by specialists		
Assessment	<p>Examination of theoretical aspects</p> <p>Practical assessment of vocational skills and competences</p>		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. Independent learning can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>		
Training Routes	Formal		

Programme Content –PC3

Programme/Module Title	APPLIED EXERCISE PHYSIOLOGY		
Module Number	ECTS	Hours	Level
	?	?	2
Purpose	To identify the links between exercise, physical activity, fitness and health. Students should be engaged in laboratory and/or field work.		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> describe and evaluate the evidence base that links exercise, physical activity and health outcomes describe and evaluate the effects of exercise, physical activity, and fitness on the risk of selected health outcomes and illnesses 		
Content	<ul style="list-style-type: none"> concepts of health, fitness, exercise and physical activity introduction to epidemiology of health, fitness, exercise and physical activity factors affecting physiological function exercise and physical activity across the lifespan body composition, energy balance and health-related aspects of exercise and physical activity training for physical fitness and health exercise physiology for clinical populations 		
Assessment	<p>Examination of theoretical aspects</p> <p>Practical assessment of vocational skills and competences</p>		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. This can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>		
Training Routes	Formal		

Programme Content –PC4

Programme/Module Title	EXERCISE ASSESSMENT AND PRESCRIPTION			
Module Number		ECTS	Hours	Level
		?	?	2
Purpose	<p>To evaluate a variety of exercise assessment techniques and analyse the process of exercise prescription.</p> <p>Students should be engaged in laboratory and/or field work.</p>			
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • identify the exercise assessment and/or exercise prescription needs of individuals or groups of participants, of both sexes and across a range of ages. • correctly apply the appropriate assessment technique(s) within health-related exercise and fitness measurement. • prescribe an appropriate exercise intervention/schedule for the needs of the individual/group on the basis of assessment results and in accordance with relevant and appropriate training recommendations/guidelines for apparently healthy individuals. • be able to communicate exercise test results and their significance to a variety of exercise/physical activity participants. 			
Content	<ul style="list-style-type: none"> • Components of health-related fitness • Pre-exercise test, patient screening and risk stratification • Informed consent, ethical and legal issues • Maximum oxygen consumption and cardiorespiratory fitness • Submaximal estimation of maximum oxygen consumption using various laboratory & field assessment methods • Components of muscular fitness. Assessment of muscular strength, power and endurance characteristics; laboratory and field methods <ul style="list-style-type: none"> • Measurement of flexibility • Prescription of aerobic and resistance exercise on the basis of exercise test results using national and international guidelines for apparently healthy participants. 			
Assessment	<p>Examination of theoretical aspects</p> <p>Practical assessment of vocational skills and competences</p>			
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. This can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>			
Training Routes	Formal			

Programme Content –PC5

Programme/Module Title	PSYCHOLOGICAL FOUNDATIONS IN HEALTH AND FITNESS			
Module Number		ECTS	Hours	Level
		?	?	1
Purpose	<p>To provide students with an introduction to fundamental psychological concepts and applications in health and fitness.</p> <p>Students should be engaged in laboratory and/or field work where appropriate.</p>			
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • demonstrate a sound knowledge of basic theoretical perspectives that inform an understanding of individuals and groups • understand key psychological theories as they apply to health and fitness • identify key issues that inform major debate in psychological research in health and fitness 			
Content	<ul style="list-style-type: none"> • Individual differences: personality and self • Social psychology: group processes and motivation • Developmental psychology: lifespan perspectives • Biological psychology: motor learning and control • Cognitive psychology: perceptions and learning theory • Abnormal psychology: mental health 			
Assessment	Examination			
Teaching and Learning Methods	Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments or seminars. Independent learning can be supported by an e-learning environment.			
Training Routes	Formal			

Programme Content –PC-6

Programme/Module Title	APPLIED EXERCISE PSYCHOLOGY		
Module Number	ECTS	Hours	Level
	?	?	2
Purpose	The programme/module should provide students with an understanding of the role of psychological principles applied to physical activity and exercise promotion and adherence.		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> critically evaluate the evidence-base for applied exercise psychology apply and evaluate psychological principles to understanding client behaviour in a physical activity/exercise setting design and evaluate evidence-based physical activity/exercise interventions 		
Content	<ul style="list-style-type: none"> Physical and psychological benefits of physical activity, exercise and a healthy lifestyle Potential barriers to physical activity and 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 physical activity/exercise adherence Relapse and relapse prevention strategies 		
Assessment	Examination or Written Case Study		
Teaching and Learning Methods	Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched seminars. Independent learning can be supported by an e-learning environment.		
Training Routes	Formal		

Programme Content -PC 7

Programme/Module Title	PUBLIC HEALTH PROMOTION		
Module Number	ECTS	Hours	Level
	?	?	1
Purpose	To provide students with an introduction to the concepts of public health and public health promotion.		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • describe and evaluate key concepts in public health and public health promotion in the context of health and fitness • describe and understand the legal, ethical and practice aspects of public health promotion in the context of health and fitness • describe and evaluate international, national, regional and local health trends, systems, policies and strategies • describe and evaluate health determinants and inequalities 		
Content	<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 and physical activity as primary and secondary intervention in health and disease • Health determinants and health inequalities 		
Assessment	Examination		
Teaching and Learning Methods	Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched seminar and workshop activities. This can be supported by e-learning.		
Training Routes	Formal		

Programme Content –PC8

Programme/Module Title	NUTRITION AND BIOCHEMISTRY			
Module Number		ECTS	Hours	Level
		?	?	1
Purpose	<p>To provide students with an introductory core module in the basic principles of nutrition and biochemistry.</p> <p>Students should be engaged in laboratory and/or field work.</p>			
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> describe, understand and begin to analyse basic principles and concepts of nutrition and biochemistry describe the general concept of human energy production in the context of exercise and physical activity describe, understand and apply basic dietary assessment methodologies 			
Content	<ul style="list-style-type: none"> Core concepts of nutrition and biochemistry Acquisition and assimilation of food Energy requirements and balance Sources, functions and requirements for macro-nutrients Sources, functions and requirements for micro-nutrients Introduction to energy systems Fluid requirements and regulation Inter-relationship between nutrition, health, exercise and physical activity National and international dietary reference values and the consensus on healthy eating principles 			
Assessment	<p>Examination of theoretical aspects</p> <p>Practical assessment of vocational skills and competences</p>			
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. This can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>			
Training Routes	Formal			

Programme Content –PC9

Programme/Module Title	NUTRITION IN HEALTH AND DISEASE		
Module Number	ECTS	Hours	Level
	?	?	2
Purpose	To describe the physiological effects of differing nutrition on health and disease.		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • identify and explain the nutritional requirements through the lifespan – pre-conception and pregnancy, childhood, adolescence, early and older adulthood • recognise and evaluate the role of nutrition in the prevention of dietary related disorders, for example obesity, coronary heart disease, diabetes, cancer, osteoporosis, food intolerance and allergies • apply knowledge and understanding to recognise, assess and refer on appropriate clients to a qualified diet and nutrition professional 		
Content	<ul style="list-style-type: none"> • Overview of public health nutrition • Nutritional epidemiology • Overnutrition and undernutrition • Measuring food intake and assessment of nutritional status • Nutrition through the lifespan; pre-conception and pregnancy, childhood, adolescence, early and older adulthood • Nutrition and dietary related disorders, for example obesity, coronary heart disease, diabetes, cancer, osteoporosis, food intolerance and allergies • Nutrition and immunity • Functional foods and supplementation 		
Assessment	<p>Examination of theoretical aspects</p> <p>Case studies/written reports of applied aspects</p>		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. This can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>		
Training Routes	Formal		

Programme Content -PC10

Programme/Module Title	NUTRITION FOR SPORT AND EXERCISE		
Module Number	ECTS	Hours	Level
	?	?	2
Purpose	To understand the relationship between nutrition, sport and exercise performance.		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> critically appreciate the effects of nutritional status on sport and exercise performance. successfully evaluate the inter-relationship between exercise and energy balance. effectively use tools and knowledge to evaluate the role of nutritional supplements and ergogenic aids in sport and performance and provide nutritional information/advice to the clients. effectively apply knowledge and understanding to recognise, assess and refer on appropriate clients to a qualified diet and nutrition professional 		
Content	<ul style="list-style-type: none"> Nutrition and its impact on sport and exercise performance Measuring food intake and assessment of nutritional status Macronutrient metabolism and availability Nutritional manipulation for sport and exercise Dehydration, re-hydration and sports drinks Nutritional supplements and ergogenic aids Nutritional strategies for training and competition Sport specific nutrition and requirements Special considerations - the female athlete, the child athlete, the veteran athlete and the diabetic athlete Practical issues in sport and exercise nutrition 		
Assessment	<p>Examination of theoretical aspects</p> <p>Case studies/written reports of applied aspects</p>		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched laboratory and/or field experiments. This can be supported by an e-learning environment.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>		
Training Routes	Formal		

Programme Content -PC11

Programme/Module Title	APPLIED EXERCISE TEACHING (GROUP EXERCISE)			
Module Number		ECTS	Hours	Level
		?	?	1/2
Purpose	<p>To provide practical and theoretical knowledge and skills of planning, delivering and evaluating group exercise sessions.</p> <p>Students should be engaged in practical exercise sessions and provided with the opportunity to develop skills and competences in delivering group exercise in realistic environments preferably through relevant work experience.</p>			
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> demonstrate knowledge, skills and understanding of training principles and their application to the planning, delivery and evaluation of group exercise sessions according to national and international standards and industry recognised guidelines lead safe, effective and motivational group exercise or activity sessions to recognised national guidelines. 			
Content	<ul style="list-style-type: none"> Modes of group exercise instruction including gym, exercise to music and water-based exercise Training principles: overload, progression, adaptation, specificity, recovery and reversibility Practical exercise instruction to include: 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 group exercise sessions relative to: differing objectives (aerobic and resistance), different clients, (groups and individuals), availability of resources Monitoring exercise intensity in group exercise environments Client care and communication skills Risk assessment and maintenance of the safe exercise environment 			
Assessment	<p>Examination of theoretical aspects</p> <p>Written reports on work-based learning</p> <p>Practical assessment of group exercise session</p>			
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched practical activity. This can be supported by work-based learning.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>			
Training Routes	Formal, informal and work-based			

Programme Content -PC12

Programme/Module Title	APPLIED EXERCISE TEACHING (GYM BASED EXERCISE)			
Module Number		ECTS	Hours	Level
		?	?	1/2
Purpose	<p>To provide practical and theoretical knowledge and skills of planning, delivering and evaluating gym-based exercise sessions.</p> <p>Students should be engaged in practical gym-based exercise sessions and provided with the opportunity to develop skills and competences in gym-based exercise in realistic environments preferably through relevant work experience.</p>			
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> demonstrate knowledge, skills and understanding of training principles and their application to the planning, delivery and evaluation of gym-based exercise sessions according to national and international standards and industry recognised guidelines lead safe, effective and motivational gym-based exercise or activity sessions to recognised national guidelines. 			
Content	<ul style="list-style-type: none"> Training principles: overload, progression, adaptation, specificity, recovery and reversibility Methods of gym-based training: cardiovascular, resistance etc Practical gym-based exercise instruction to include: planning and preparing activities, preparing clients for activity, teaching and adapting activities, bringing activities to an end and evaluating personal performance Safe and effective gym-based exercise instruction Planning, delivering and adapting gym-based sessions relative to: differing objectives (aerobic and resistance), different clients, availability of resources Monitoring exercise intensity in the gym environment Risk assessment and maintenance of the safe exercise environment 			
Assessment	<p>Examination of theoretical aspects</p> <p>Written reports on work-based learning</p> <p>Practical assessment of gym-based exercise session</p>			
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched practical activity in a gym environment. This can be supported by work-based learning.</p> <p>There should be the opportunity for group work throughout the module to gain vocational skills and competences.</p>			
Training Routes	<p>Formal, informal and work-based</p>			

Programme Content -PC13

Programme/Module Title	WORK EXPERIENNCE		
Module Number	ECTS	Hours	Level
	?	?	2 and 3
Purpose	<p>Work experience is designed to provide a variety of experiences in which to observe, inquire, participate, contribute and learn in a 'real' situation. Moreover, the opportunity to feedback experience promotes the concept of the reflective practitioner. It should enable students to develop their own models of applied practice and promote an ability to conceptualise theory in a way that has real potential value to the future career progression.</p> <p>Students who are used to operating within a learning environment that actively encourages continuing personal, academic and career development are likely to be much better placed to succeed in the workplace.</p>		
Learning Outcomes	<p>On completion of this programme/module students should have:</p> <ul style="list-style-type: none"> • had the opportunity to apply under real conditions the knowledge and skills acquired through an associated academic programme of learning. • developed greater self awareness of individual strengths and weaknesses with respect to current/future personal, academic and career development needs. • developed the ability to plan realistic learning experience through the use of a negotiated learning agreement. • learnt and applied new and vocationally relevant skills and techniques through a variety of work-based experiences. • worked alongside qualified practising professionals within the health and fitness area and had their performance and potential evaluated by such professionals. • gained contextual understanding of the occupational sector into which the work experience fits. 		
Content	<p>Effective work-based learning is fundamental to lifelong personal and career development. These experiences assist in preparing students for a career position, and subsequent success, upon completion of a programme of study. These experiences should complement and add value to the knowledge and skills obtained in lecture, seminar and workshop situations. Students should be encouraged to reflect back on their experience in an attempt to increase their level of understanding</p> <p>Work experience should be governed by a tri-partite negotiated learning agreement between the student, the workplace supervisor and the academic tutor.</p>		
Assessment	<p>Written Negotiated Learning Agreement</p> <p>Written Report or Learning Log of Work Experience</p>		
Teaching and Learning Methods	<p>The process of work experience is one that is almost entirely driven by the student, but within the guidelines provided by the University to conform with appropriate legislation.</p> <p>The module is designed to promote the concept of the autonomous learner. This should be facilitated through experiential/action learning in a way that promotes both the intellectual and vocational development of the student.</p> <p>Students should be required to articulate and reflect upon their experiences of the process, in the context of their personal, academic and career development. This will take the form of a negotiated learning agreement (prior to commencement) and a learning log (during and after the work experience).</p>		
Training Routes	<p>Work-based</p>		

Programme Content -PC14

Programme/Module Title	CONTINUING PROFESSIONAL DEVELOPMENT		
Module Number	ECTS	Hours	Level
	?	?	2/3
Purpose	To provide a focus for personal and career development of students. This includes the continuous monitoring, refinement and assessment of agreed personal, academic and career development targets.		
Learning Outcomes	<p>On completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • demonstrate an understanding of the issues driving the personal and professional development within the context of lifelong learning • demonstrate an ability to critically evaluate their own development of personal, academic and career skills, using a range of relevant information sources e.g. national occupational standards • demonstrate an ability to plan, progress and effectively communicate individual skills/aptitudes against identified personal/career outcomes 		
Content	<ul style="list-style-type: none"> • Concept and application of lifelong learning • Concept and application of professional development • Professional values, ethics and legal responsibilities • Action/work-based learning • Working with National Occupational Standards • Diversity & Cross Cultural Capability • Entrepreneurship / Intrapreneurship • Project Management • Leadership and teamwork in organisations • Developing personal skills (eg time management, assertiveness, self esteem, customer care etc) • Career development planning 		
Assessment	Written Professional Development Audit and Plan		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched seminar and workshop activities. This can be supported by e-learning.</p> <p>Students should be encouraged to apply learning, where appropriate, to their individual context and work environment.</p> <p>Students should work, closely, with personal tutors to monitor, reflect upon and plan for their personal, academic and career development. In addition, students would benefit from 'buddying-up' with fellow students to offer peer review, advice, feedback and support, as necessary.</p>		
Training Routes	Formal and informal with potential for application to work the environment		

Programme Content -PC15

Programme/Module Title	RESEARCH METHODS		
Module Number	ECTS	Hours	Level
		?	1/2/3
Purpose	This programme/module will involve students learning about different approaches to research in order that they will be better equipped both to undertake their own research and to offer a critique of the research of others.		
Learning Outcomes	<p>On successful completion of this programme/module students should be able to:</p> <ul style="list-style-type: none"> • understand the advantages and disadvantages of quantitative and qualitative approaches of research investigation and their applications • justify and apply a particular research approach to their own area of interest within health and fitness • critically evaluate the contribution of published research material from a methodological perspective • capable of devising and undertaking their own dissertation or work based project. 		
Content	<ul style="list-style-type: none"> • Qualitative and quantitative approaches to research • Measuring research variables; validity and reliability; objectivity and subjectivity • Sampling • Questionnaire design and analysis • Statistical and measurement concepts in research • The use of computer software to input, process and analyse data • Case studies • Ethical issues in research • Writing for research 		
Assessment	A written research proposal		
Teaching and Learning Methods	<p>Theoretical subject matter and applications would be best presented in traditional lecture format followed by subject matched seminar and workshop activities. This can be supported by e-learning.</p> <p>Students should be encouraged to apply learning, where appropriate, to their individual context and work environment.</p>		
Training Routes	Formal and informal		

Programme Content -PC16

Programme/Module Title	DISSERTATION		
Module Number	ECTS	Hours	Level
		?	3
Purpose	To give the students the opportunity to bring together concepts, skills and techniques developed in programmes/modules studied throughout their undergraduate course, to demonstrate the ability to direct their own studies and to investigate in depth a topic of their choice within the cognate field of their course.		
Learning Outcomes	<p>On completion of this programme/module students should have demonstrated the ability to carry out an independent, sustained piece of work that requires technical competence and the ability to work independently to:</p> <ul style="list-style-type: none"> • define a research question and undertake a large independent research project under the guidance of a tutor • assimilate a range of concepts, issues, techniques and skills • evaluate evidence and construct critical arguments 		
Content	<p>The structure of the dissertation, treatment of the research topic and adopted methodology will depend on the research topic selected and intended purpose of the dissertation. The research will normally contain an empirical component, but may be a critical review of the state of current knowledge in the health and fitness area. The research may attempt to extend the state of knowledge within the topic area or apply existing ideas techniques or methods to a new situation.</p> <p>Students should be able, where appropriate, to take a vocational focus in their dissertation, such research enables students the opportunity to apply, in an organisation setting, knowledge, skills and techniques developed in programmes/modules throughout their undergraduate course, to develop and demonstrate the ability to direct their own research project in co-operation with a relevant organisation of their choice.</p> <p>Ethical procedures should be followed as determined by institutional guidelines.</p>		
Assessment	Written Theses		
Teaching and Learning Methods	Students should work in with a project supervisor, who will provide guidance and support through the research process. Students should be encouraged to formally document this support via a pro-forma. In supporting the research process and the role of the dissertation supervisor, students should be expected to attend research workshops relevant to the type of research and analyses they are undertaking.		
Training Routes	Formal and informal with potential for application to work the environment		