

# PROGRESS REPORT (Year 2)

## Health and Fitness

### Health and Fitness Group:

**Coordinator:** Allan Pilkington – Sprito Directions (UK) –  
Louise Sutton – Leeds Metropolitan University (UK) –  
Ben Gittus – SkillsActive (UK) –  
Susana Franco – Escola Superior de Deporto de Rio Maior (Portugal) –  
Aurelien Favre – Sprito Directions (UK/France) –  
Terttu Parkatti – University of Jyväskylä (Finland) –  
Paolo Parisi – IUSM - Rome University for Movement Science (Italy) –

### Main Actions (2<sup>nd</sup> Year):

**To develop a curriculum model for the Health and Fitness activities using the “six steps models”.**

**I- Introduction: Summary of the “six steps Tuning model” in the Health and Fitness area:**

#### **1- Professional Area: Health and Fitness**

**Action: The first task will be to define in one sentence the *Health and Fitness* area.**  
(See “Key Purposes” in the EHFA document: Functional Map)

#### **2- Standard Occupations**

In accordance with the EOSE Nomenclature of Occupation (NEORS), four standard occupations have been accepted by the Health and Fitness Group:

- ***Gym Instructor (Gym)*** which includes Fitness Instructor and Personal Trainer.
- ***Health-Related Exercise Specialist (HRES)***
- ***Public Health Promotion Specialist (PH)***
- ***Fitness Management (FM)***

**Action: For the project, we will have to define *in one generic sentence* the 3 major occupations.**

#### **3- Activities**

For three of these occupations, our task will be to define the **4/5 main activities** corresponding.

**Action: We have decided to focus on *Gym Instructor, Health-Related Exercise Specialist* and *Public Health Promotion Specialist*.**

Referring Gym Manager to the Sport Management Group.

4- Competences

**Action:** For each activity listed in point 3, we will have to define the corresponding competences.

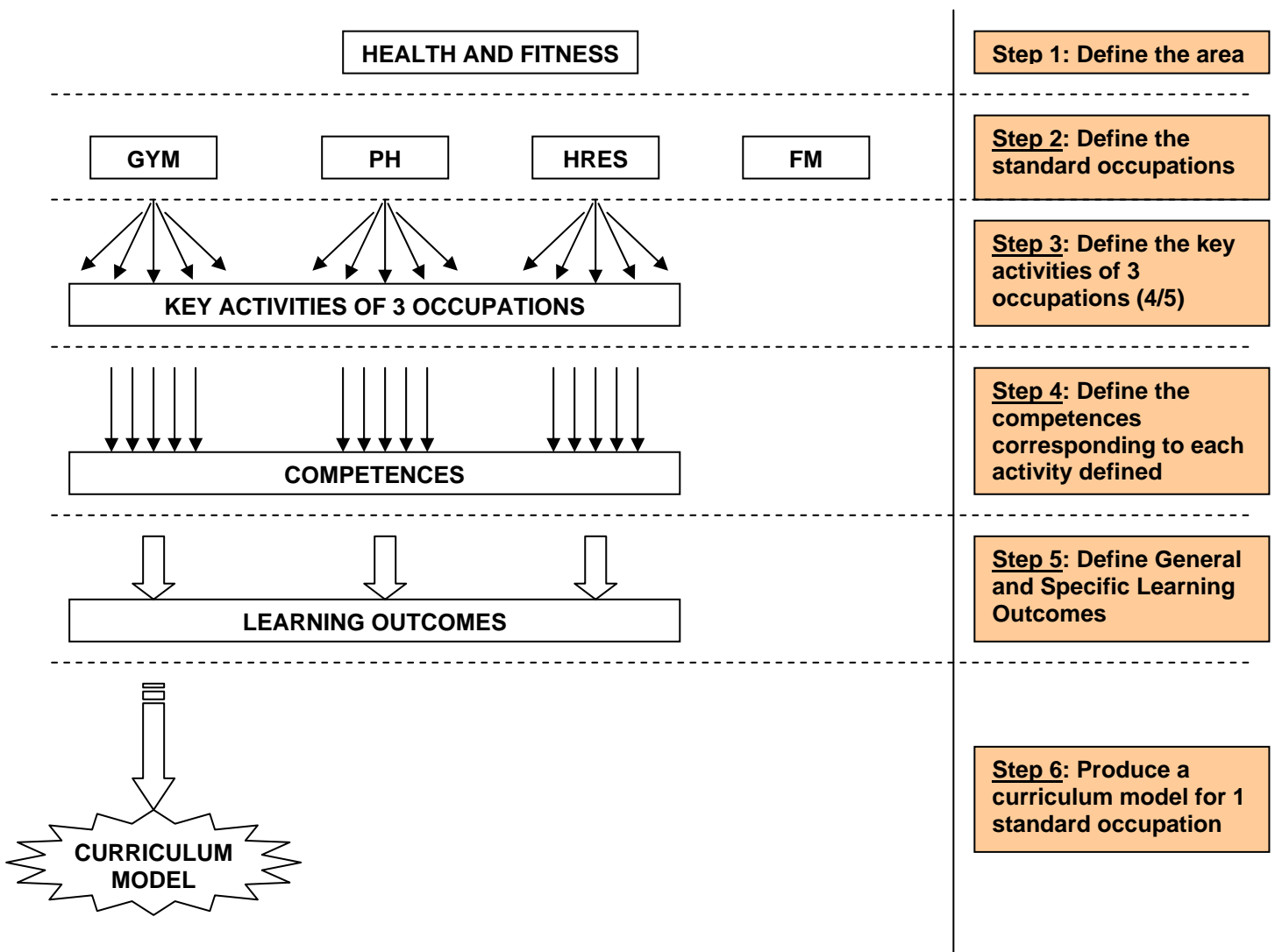
5- Learning Outcomes (General and Specific)

**Action:** For the three relevant occupations we have chosen, our task will be to specify the *learning outcomes* students will have to integrate at the end of the programme related to the agreed competences.

6- Curriculum Model

For one occupation, the last step will be to produce a curriculum model.

**Action:** We have decided to develop this last point for the *Gym Instructor* occupation.



**WORKING PLAN AGREED (2<sup>nd</sup> Year)**

Topics	Action	Who	When
<b>ACTIONS 1</b>			
1) Gym Instructor	Steps 1 to 5	Allan, Louise, Aurelien	End February 2005
2) Health-Related Exercise Specialist	Steps 1 to 3	Paolo/Terttu	End February 2005
3) Public Health Promotion Specialist	Steps 1 to 3	Susana/Romas	End February 2005
Identify people to send the draft document concerning "Gym Instructor Steps 1 to 5"	Create a Second Team of Experts	Health and Fitness Group (lead- Allan)	February 2005
Assessment of the document	Send the document to the second team of experts to obtain feedbacks	Allan, Aurelien	Early March 2005
<b>Phone Conference</b>	State of achievement, problems, questions...	Health and Fitness Group	<b>1<sup>st</sup> March 2005 15.00pm UK Time</b>
<b>ACTIONS 2</b>			
Feedback and Comments	Receive and collect feedbacks from the experts	Aurelien	End March 2005
1) Gym Instructor Occupation	Draft Curriculum Model	Louise, Allan	8 <sup>th</sup> April 2005 (Meeting)
2) Health-Related Exercise Specialist	Steps 4 and 5 + revision 3	Paolo	8 <sup>th</sup> April 2005 (Meeting)
3) Public Health Promotion Specialist	Steps 4 and 5 + revision 3	Susana	8 <sup>th</sup> April 2005 (Meeting)
<b>ACTIONS 3</b>			
<b>Health and Fitness Meeting**</b>	Review and sign off documents ready (Document on steps 1 to 5 for the three occupations and the first draft curriculum for Gym Instructor)	Health and Fitness Group (6 persons)	<b>8<sup>th</sup> – 10<sup>th</sup> April 2005 (12.00 to 12.00) Portugal Rio Maior University</b>
Acceptation/revision of these documents	Send out to experts for comments*	Health and Fitness Group	After the meeting until Limerick Conference

\* *The second tier of experts will be drawn from the people who attended the first conference plus any additional experts proposed and accepted by the group (Annex 1)*

\*\* *Agenda of the Rio Maior Meeting (Annex 2)*

\*\*\* *Minutes of the Rio Maior Meeting (Annex 3)*

**II- Work undertaken following the "Tuning Model"**

**Advanced Gym Instructor/ Personal Trainer**

**1. Definition of the Health & Fitness professional area**

The Health and Fitness area collectively concerns activities, behaviours, or policies maintaining or promoting 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:

a) the area of *Health-Related Exercise* (or, *Health Training*), 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,

carried out in the context of health care centres or programs and under medical control as needed;

b) the area of *Fitness (Personal or Group Training)*, concerning the promotion, design, and execution of exercise meant to enhance individual fitness levels and wellness feelings, and to prevent disease in the healthy adult population, carried out in the context of sport or fitness centres and/or in private practice.

## **2. Standard Occupations**

Advanced Gym Instructor/ Personal Trainer

The *Advanced Gym Instructor/ Personal Trainer* is a graduate in sports science or related disciplines who is able to design, deliver and evaluate utilising advanced exercise techniques, in appropriate contexts, with due regard to health and safety, exercise programmes related to the maintenance of health and physical efficiency for both apparently healthy and minimal or low risk adults, and individuals from special populations.

## **3. Activities**

The Advanced Instructor/ Personal Trainer is able to:

- 3.1 Collect, analyse and interpret information about participants' health and fitness status, exercise experience, goals and preferences
- 3.2 Prescribe, supervise and monitor safe and effective exercise programmes for both apparently healthy, and minimal or low risk adults and individuals from special populations
- 3.3 Provide and maintain participants' motivation using a variety of strategies to promote behaviour change and exercise adherence
- 3.4 Control resources and ensure the health and safety of participants
- 3.5 Assume responsibility, within an ethical frame of reference, at all levels of practice

## **4. Competences**

Typically graduates will be able to:

- 4.1 Demonstrate a systematic understanding of key aspects of the study of health and fitness and the acquisition of detailed knowledge including anatomy, physiology, biomechanics, psychology and nutrition and biochemistry. In addition graduates will be able to demonstrate an understanding of the social and political contexts of health, fitness and physical activity promotion.
- 4.2 Demonstrate an ability to practically deploy established techniques of analysis and enquiry in health and fitness including practical fitness instruction/ applied exercise teaching, health and fitness assessment/ exercise prescription, motivation and behaviour change, special populations and exercise referral.
- 4.3 Demonstrate conceptual understanding that enables the student to devise and sustain arguments, and/or to solve problems, using ideas and techniques relevant to health and fitness
- 4.4 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

- 4.5 Recognise and respond to moral, ethical and safety issues which directly pertain to health and fitness including relevant legislation and professional codes of conduct

## 5. Learning Outcomes

Typically graduates will be able to:

- 5.1 Plan, design and execute safe and effective exercise programmes and activities using appropriate technique and procedures, specifically tailored to a range of individuals or client groups.
- 5.2 Apply knowledge and critical understanding of well established principles, theories and concepts from appropriate fields of study to the health and fitness context.
- 5.3 Demonstrate research and problem solving abilities by understanding methods of acquiring, interpreting and analysing information in the context of health and fitness.
- 5.4 Plan, design, execute and communicate a sustained piece of independent intellectual work using appropriate media
- 5.5 Demonstrate understanding of health and fitness through both academic and professional reflective practice

## **Public Health Promotion Specialist**

### 1. Definition of the Health & Fitness professional area

The Health and Fitness area collectively concerns activities, behaviours, or policies maintaining or promoting 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:

a) the area of *Health-Related Exercise (or, Health Training)*, 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, carried out in the context of health care centres or programs and under medical control as needed;

b) the area of *Fitness (Personal or Group Training)*, concerning the promotion, design, and execution of exercise meant to enhance individual fitness levels and wellness feelings, and to prevent disease in the healthy adult population, carried out in the context of sport or fitness centres and/or in private practice.

### 2. Standard Occupations

Public Health Promotion Specialist (All the occupations concerning the development, management and promoting of exercise programs in the area of public health)

To develop, manage and promote public health and exercise programs, to various public and private agencies (clubs, associations, schools, government agencies, research laboratories, etc.) in the framework of a policy defined either by the public authority, at national, regional or local level, or by the agencies themselves.

### **3. Activities**

The Public Health Promotion Specialist is able:

- 3.1 To participate in public health surveillance programs, searching and using scientific epidemiological evidence.
- 3.2 To plan and develop public health and exercise programs.
- 3.3 To promote public health and exercise programs.
- 3.4 To manage public health and exercise programs
- 3.5 To evaluate public health and exercise programs

### **4. Competences**

- 4.1 Collect significant information concerning the exercise and health related issues and use available information (Activities 3.1)
- 4.2 Define the objectives of the public health and exercise program, by identifying the population' needs (Activities 3.2)
- 4.3 Identify legal and practical aspects of public health and exercise interventions (Activities 3.2)
- 4.4 Select the appropriate physical activities for the participants of public health and exercise programs with certain goal (Activities 3.2)
- 4.5 Design the plan of the public health and exercise program (Activities 3.2)
- 4.6 Develop and apply strategies to participants adhere to the public health and exercise program (Activities 3.2)
- 4.7 Promote the public health and exercise program (Activities 3.3)
- 4.8 Review the progress of implementation of the public health and exercise program (Activities 3.4)
- 4.9 Co-ordinate the implementation of the public health and exercise program (Activities 3.4)
- 4.10 Evaluate the implementation of the public health and exercise program (Activities 3.5)

### **5. Learning outcomes**

5.1 – (Activities 3.1 / Competences 4.1)

- Understand the concepts of epidemiology
- Apply different types of epidemiologic studies
- Build appropriate techniques for data collection
- Apply appropriate techniques for data collection
- Collect and treat information using scientific evidence
- Analyse bio-statistical information
- Use biostatistics software
- Work in co-operation with other associated professionals
- Understand the role of epidemiology in prevention of disease

#### 5.2 – (Activities 3.2 / Competences 4.2)

- Analyse population characteristics: demographic; geographic; physical; behavioural; psychographic
- Analyse the scientific epidemiological evidence
- Recognise the target population need and want
- Decide what kind of data must be collected at the beginning and at the end of the program, to verify if the objectives were reached
- Recognise the appropriate techniques for data collection to evaluate the program effects, and chose them: questionnaires or surveys; interviews; self-report inventories and diaries; direct observation; physical measures (fitness: strength, flexibility, cardio-respiratory condition, etc; health: blood pressure, body composition); skills testing; site visits; monitoring of media coverage, etc.
- Analyse the potential co-operation with other associated professionals

#### 5.3 – (Activities 3.2 / Competences 4.3)

- Identify and apply legal and practical aspects of public health and exercise interventions
- Identify the national public health policies
- Analyse national health policies and strategies
- Identify national health systems
- Identify private and public health funding

#### 5.4 – (Activities 3.2 / Competences 4.4)

- Apply the fundamentals of sports and exercise sciences, like, biology, biomechanics, motor control, pedagogy, psychology or sociology
- Apply the scientific fundamentals of exercise role in public health
- Recognise health determinants and health and unhealthy behaviours
- Analyse the benefits of exercise in health
- Understand exercise as primary intervention in health
- Understand exercise as secondary intervention in health
- Demonstrate an understanding of how to make health and life style screening and risk stratification
- Recognise when is recommended to do a medical examination and exercise testing prior to participation in physical activity, and when is recommended to have a physician supervision during exercise testing
- Demonstrate an understanding of how assess the fitness condition of apparently health individuals and special populations (children, elderly, pregnant women, back problems, cardiac, hypertension, diabetes, osteoporosis, arthritis, asthma, obesity, etc.)
- Demonstrate an understanding of how prescribe exercise for maintain or improve fitness and health condition for apparently health individuals and special populations (children,

elderly, pregnant women, back problems, cardiac, hypertension, diabetes, osteoporosis, arthritis, asthma, obesity, etc.)

- Recognise the characteristics of special populations
- Analyse the objectives and needs of special populations
- Analyse the characteristics of physical activities and their benefits in health and fitness
- Understand the use of available technologies

#### 5.5 – (Activities 3.2 / Competences 4.5)

- Analyse the resources: human; material and equipments; facilities; financial
- Determine the events, tasks, dates, schedule, facilities, materials and equipments needed
- Apply a swot analysis
- Analyse partnerships
- Determine the intervention of partnerships and employees

#### 5.6 – (Activities 3.2 / Competences 4.6)

- Apply techniques of data collection about the opinion of potential participants: surveys by e-mail, telephone or in person; interviews
- Demonstrate an understanding of the barriers to exercise: environmental barriers, personal barriers
- Apply techniques to determine stage of behaviour change: questionnaire; interview
- Identify and apply the essential components of a behaviour change strategy, and consider them when plan and implement the program
- Apply techniques to determine why people have dropout of exercise program: questionnaire; interview
- Identify and apply strategy to avoid dropout, and consider them when plan and implement the program
- Apply techniques to determine motivations to exercise: questionnaire; interview
- Identify motivations strategies to exercise, and consider them when plan and implement the program
- Apply techniques to determine expectations about the program: questionnaire; interview
- Identify strategies to encounter expectations, and consider them when plan and implement the program

#### 5.7 – (Activities 3.3 / Competences 4.7)

- Develop and apply marketing strategies to delivery the program and capture participants
- Analyse the resources: human; material and equipments; facilities; financial
- Determine the events, tasks, dates, schedule, facilities, materials and equipments needed

- Analyse and determine partnerships

#### 5.8 – (Activities 3.8/ Competences 4.8)

- Demonstrate that the program is being accomplished
- Perceiving the evolution of the results and interventions
- Identity how many participants are taking the program
- Identify if partnerships and/or employees are working effectively
- Collect feedbacks of partnerships and/or employees, using interviews or questionnaires, and analyzes them and make needed changes in the program
- Collect feedbacks of participants, using interviews or questionnaires, and analyzes them and make needed changes in the program
- Identify what strategies are or are not working and make needed changes
- Be able to identify the obstacles, barriers and problems and make needed changes
- Evaluate if the objectives of the program are being achieved, and if participants are getting benefits with it, and analyse why if don't
- Revise the objectives if needed

#### 5.9 – (Activities 3.8/ Competences 4.9)

- Co-ordinate the events, tasks, dates, schedule, facilities, materials and equipments, finances
- Control the activity of the partnerships and employees

#### 5.10 – (Activities 3.9/ Competences 4.10)

- Demonstrate that the program was accomplished
- Identity how many people participated in the program
- Collect feedbacks of partnerships and/or employees, using interviews or questionnaires, and analyzes them
- Collect feedbacks of participants, using interviews or questionnaires, and analyzes them
- Evaluate if the objectives of the program were reached, and if participants achieved the suppose benefits, and analyse why if don't
- Recognise the appropriate techniques for data collection to evaluate the program effects, and analyse it: questionnaires or surveys; interviews; self-report inventories and diaries; direct observation; physical measures (fitness: strength, flexibility, cardio-respiratory condition, etc; health: blood pressure, body composition); skills testing; site visits; monitoring of media coverage, etc
- Identify what were the strategies that work and which didn't work
- Identify the obstacles, barriers and problems associated with the program implementation
- Identify what were the successes of the program implementation
- Co-operate with other associated professionals

- Make suggestions to improved the program if replicate
- Write a report concerning the above aspects
- Develop new perspectives on policy, participation and practice of public health and exercise

## Health-Related Exercise Specialist

### 1. Professional Area

The Health and Fitness area collectively concerns activities, behaviours, or policies maintaining or promoting 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:

a) the area of *Health-Related Exercise* (or, *Health Training*), 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, carried out in the context of health care centres or programs and under medical control as needed;

b) the area of *Fitness* (*Personal or Group Training*), concerning the promotion, design, and execution of exercise meant to enhance individual fitness levels and wellness feelings, and to prevent disease in the healthy adult population, carried out in the context of sport or fitness centres and/or in private practice.

### 2. Standard Occupation

The *Health-Related Exercise Specialist* (or *Health Trainer*) is a graduate in sport science or related disciplines who is able to design and supervise, in appropriate contexts and with medical advice as needed, training programs, specifically tailored for the different age groups and health and social conditions, related to the maintenance and improvement of health and physical efficiency, to risk-factors prevention, to movement reeducation and rehabilitation, and to coping with chronic conditions or permanent disability.

### 3. Activities

- 3.1. Do risk stratification of subjects before exercise prescription and exercise testing. Design, administer and evaluate graded exercise tests.
- 3.2. Design, prescribe, administer and monitor individual and general training programs for healthy subjects, specifically tailored for the various age groups, such as children, adults, or the elderly.
- 3.3. 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.).
- 3.4. 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.
- 3.5. Apply emergency procedures and safety measures.

## 4. Competences

- 4.1. Sound background in such areas as biology and physiology of exercise, conditioning and coaching, training science and biomechanics, psychology and public health. Understanding the basics of ergometry, pathophysiology, chronic diseases and main risk factors, along with capability to evaluate their implications to exercise and apply this understanding to risk stratification and graded exercise testing, with an ethical attitude and frame of reference.
- 4.2. Comprehensive knowledge of biology, physiology and functional capacity, psychology, nutrition and the problems of substance abuse, biomechanics of different sports, and training and coaching, with special regard to life-time sports. Capability to apply this knowledge to physical activity and understand the implications for the organism at the various ages. Capability to design, conduct, and evaluate exercise programs for children and for the elderly. Sensibility for the problems of older age immobility, inactivity and disability, and specific skills to deal with them.
- 4.3. Good understanding of major public health issues and principles of health education, with special respect to risk factors and chronic disorders. Attitude to understand social trends, behaviours and motivations, with special respect to their effects on health and lifestyle. Ability to design, conduct, and evaluate exercise programs appropriate to counter sedentariness in the general population.
- 4.4. Basic knowledge on traumas and other temporary or permanent disabilities or chronic disorders, understanding the implications of specific exercise programs, and capability to apply and implement the principles of movement therapy. Understanding the interactions between the therapy prescribed by physicians and the exercise program, and capability to adjust the program accordingly. Detailed knowledge of disease-specific findings, signs and symptoms increasing complication risk during exercise.
- 4.5. Specific experience, attitude and skills in applying emergency procedures; certification in basic cardiac life support.

## 5. Learning Outcomes

- 5.1 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. Integrate data from performance diagnosis and respective training prescriptions. Document training programs and performance progress, and sustain participants' motivation.
- 5.2 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.
- 5.3 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.
- 5.4 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 reeducation and rehabilitation in post-traumatic conditions or other health impairment, or to cope with chronic diseases or disabilities.

- 5.5 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.

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