

**Study Program
Bachelor's Degree 2006**

**Physical Therapy
Degree Program**

**Of the University of Applied Sciences
of Western Switzerland**

Validated by the Management Committee by electronic consultation September 8, 2006

The September 17, 2007 version validated by the Management Committee of the HES-SO (Haute école spécialisée de Suisse occidentale/University of Applied Sciences of Western Switzerland) during the meeting of October 30, 2007

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The degree program in Physical Therapy is part of the “health” domain of the HES-SO, which also comprises degree programs in Nutrition, Occupational Therapy, Motor Skills Therapy, Medical Radiology, Midwifery, and Nursing.

1. Presentation of the profession

Specializing in movement and mobility, the physical therapist addresses questions of health, illness and accidental injury. Physical therapy is a technical and manual profession that works with the body; therefore human relationships and contact are very important.

Through a specific evaluation, the physical therapist may propose, debate and implement the necessary treatments according to the needs of the patient. He or she uses a variety of methods that facilitate patients’ physical awareness and movement in order to reduce pain and improve cardio-respiratory function. These techniques may be complemented with the use of rehabilitation apparatus and physical agents.

The physical therapist collaborates with other health professionals and the patient, and takes the patient’s environment into consideration, to optimize the effectiveness of the treatment.

The physical therapist participates in the social and professional rehabilitation of people with limitations to their physical and social ability through treatment and preventative measures, health education, reeducation and adaptation. The therapist can help these people regain their mobility and autonomy. He or she also works with people who are healthy and active in sports.

These professional concepts and techniques are continually updated, accounting for new scientific knowledge from both the hard and soft sciences. To remain competent, a physical therapist must keep up to date. Continuing education programs offer more in-depth training and training in new intervention techniques, as well as personal development.

The physical therapist may be associated with various training, supervision and research programs alongside other health and social science professionals. He or she contributes to the development and implementation of projects that address specific problems of the profession.

Through research he or she participates in the development of the scientifically-based professional knowledge.

The choices of job settings are extremely varied. The therapist can work in hospitals, rehabilitation clinics, doctor’s offices, international organizations, industry, schools, sports centers etc.

The physical therapist most often works under the legal jurisdiction of health insurance (LAMal) and medical prescription. Working as a professional, the therapist must be aware of the evolution of the economic context and health and social politics, as well as related concepts such as the patient's participation in his/her own treatment, outpatient care, health care networks, quality of treatment, etc.

2 Concept of the degree program

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According to its mission, the Bachelor's Degree program in physical therapy is an education based on general practice, enabling the development of competencies necessary to the exercise of the profession. The diploma delivers access to professional practice.

The definition of competence held by the degree program is a result of a collaboration between the social work and health studies degree programs (1). The specialists identified the four following characteristics through progressive consensus:

- Competency is the ability to take effective action when faced with a group of situations;
- It is a combination of cognitive resources and operating schemes;
- It includes the capacity to mobilize these resources appropriately as a situation unfolds and at the opportune moment;
- It is not directly observable but can be inferred through performance indicators.

The degree program has focused on the analysis of the definition, the missions, the professional functions, and emblematic professional situations. This iterative process, initiated in 2002 as a professional collaboration, has enabled the creation of a list of professional proficiency standards.

These recommendations integrate the evolution that occurred with the construction of the health domain of the HES-SO, in particular by integrating the health standards

proposed by the HES-SO at the Conference of the CSHES(2) specializing in health, wherein competencies common across health professions were identified, and the conclusions of the Benchmark of the WCPT (World Confederation of Physical Therapists)(3), clarifying already-identified specific professional competencies. It integrates the concepts and vocabulary of the international classification of function, disability, and health. (4)

Competencies at the Bachelor level are built upon knowledge and abilities acquired by the students in their previous education or during the preparatory year (complementary modules) which precede entry into the Bachelor's program.

Entry level proficiency is the basis for building high level professional competency as described by the following characteristics:

- The student's ability to learn independently requiring the development of methodological and professional skills for "life long learning"

- Conceptual confrontation and conceptualization of the practice

- Integration of research results in teaching and practice (Evidence based practice) and student involvement in the professors' research projects

- (1) Final report established by the Conference of centers of education of the fields of social work and health studies (C2ES2), in accordance with the original agreements concerning social work and health studies education by the HES of Western Switzerland, September 2001.
- (2) Conference of Swiss universities
- (3) European Physiotherapy Benchmark Statement – European Region of the World Confederation of Physical Therapy – June 4, 2003
- (4) CIF – International classification of function, disability and health, WHO, 2001

2.1. Proficiency Standards

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Eight generic competencies form the professional proficiency standards of the Physical Therapy Bachelor's Degree Program are listed below.

1. Practicing the profession in an independent and responsible manner

- a. By understanding one's role and duties as well as those of other health professionals;
- b. By engaging in teamwork in an interdisciplinary context;
- c. By acting within the legal framework, ethical rules, and professional standards;
- d. By ensuring the supervision and training of colleagues and students;
- e. By promoting the approach specific to the profession within interdisciplinary services;
- f. By acting within the framework of sustainable development;
- g. By contributing to the process of quality improvement;
- h. By updating knowledge and abilities through continuous education (life long learning);
- i. By continuing to develop as a professional;
- j. By evaluating one's competence in relation to the evolution of professional practice and knowledge.

2. Identifying the needs and expectations of patients concerning their health and functional capacity

- a. By evaluating capacity, physical limitations, restrictions and deficiencies;
- b. By making a physiotherapeutic diagnosis of abilities, physical limitations, restrictions and deficiencies;
 - c. By updating physiotherapeutic diagnosis with respect to the patient's condition and progress;
 - d. By taking into consideration the person, their culture, their goals, their choices and their environment;
 - e. By using relevant and validated tools;

- f. By evaluating the benefits, the limits, and the personal and financial investment implicit in the services;
- g. By taking into account the perceived resources and needs of the patient;
- h. By ensuring conditions enabling the patient to make informed choices;
- i. By taking into account pertinent information concerning the patient.

3. Defining objectives, strategies and methods of prevention,

maintenance, restoration or improvement of functional capacity

- a. By defining with the patient objectives corresponding to their needs and functional expectations;
- b. By establishing a plan of intervention that corresponds with the needs and expectations of the individual;
- c. By basing the physiotherapeutic diagnosis on pertinent information;
- d. By selecting methods on the basis of professional consensus and Evidence-Based Practice (EBP);
- e. By anticipating potential risks related to the therapy;
- f. By determining the resources and investment necessary to attain the goal;
- g. By adapting the therapeutic services to the evolving situation;
- h. By coordinating the intervention with the work of other members of the medical team and the patient's family circle.

4. Implementing services for prevention, maintenance, restoration or improvement of functional capacities

- a. By favoring the participation and autonomy of the patient;
- b. By organizing a logical sequence of service;
- c. By assuring safe conditions for treatment;

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- d. By carrying out treatment in a manner adherent to the principles of techniques and procedures;
- e. By ensuring the quality of delivery and appropriateness of professional activity;
- f. By adapting the treatment to account for any change in the patient's condition or situation;
- g. By striving for therapeutic efficiency and effectiveness;
- h. By including the principles of education, ergonomics, and socio-professional reinsertion;
- i. By integrating accepted professional practices;
- j. By using appropriate teaching and communication methods.

5. Evaluating the impact of the services on patients' functional capacity

- a. By discussing the results with the patient and other implicated persons;
- b. By using relevant, validated measurement techniques;
- c. By interpreting the results in order to adapt the treatments;
- d. By participating in the evaluation of the services (outcome);
- e. By debating and justifying the services rendered.

6. Documenting services and managing activities

- a. By guaranteeing written record of information concerning the therapeutic services and the results obtained;
- b. By archiving information and assuring its confidentiality;
- c. By developing a system of management and access to pertinent information;
- d. By keeping administrative files current;
- e. By respecting the rules and regulations for usage of files;
- f. By assuring the correct usage of work materials and equipment.

7. Contributing to the development and promotion of health in the social and health care systems

- a. By sharing knowledge and proficiency during collaborative projects with other social work and health care professionals;
- b. By becoming involved in the development and promotion of the profession, in particular through professional organizations;
- c. By analyzing official publications and relevant data to identify the needs of society;
- d. By communicating useful information to the public;
- e. By promoting concepts of sustainable development.

8. Contributing to research programs in the social and health care systems

- a. By initiating or participating in research projects pertinent to the profession;
- b. By determining relevant methodological approaches;
- c. By participating in the production of professional knowledge and competency;
- d. By promoting the diffusion and usage of research results;
- e. By respecting ethical principles.

2.2 Pedagogic and Didactic Principles

In order to ensure the development of students' competency, the degree program has integrated the following principles into the training.

-The training offered by the degree program is an education in the provision of "human services". This implies a strong relationship between theory and clinical practice enabling the development of professional competencies, a multifaceted

approach to situations, judgmental capacity, autonomy and responsibility. It develops students' reflexive behavior in activities involving multi-level knowledge sources, research practices, the definition of problems and search for solutions, and the theorization of their practice. In order to do this, methods of research and information processing are taught and used from the beginning of the training.

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- The training offered by the degree program is an adult education. It values the personal and professional experience of the student, the understanding of the training, and it reserves space for self-determination in the educational project. It enables the student to work independently by helping to develop self-teaching and self-evaluating skills. Through the choice of classes offered but also through the negotiation of a three-party pedagogic contract during periods of practical education that enables each party (school, student, and educator practitioner) to negotiate the conditions of the apprenticeship while adhering to school guidelines, it leaves ample room for the student's training project.
- Competency development supposes a contextualization transferred in part through the device of the practical education established by the HES-SO and in part through the choice of pedagogic tactics used at the school: apprenticeship experiences in invented or real-life situations, methods of professional problem solving, analysis of the practice, etc.

2.3 Educational Axes

The educational axes are thematic multidisciplinary groupings (a conjunction of knowledge, practice and disciplines). These help to organize the educational program with the goal of developing professional competency.

Seven educational axes have been set out for training in Health and Social Work(5):

- **Axis I. Professional interventions:** brings together teaching and educational tools relative to conceptual frameworks and specific methodologies of evaluation and intervention of the physiotherapy profession, including professional relationships in physical therapy.
- **Axis II. Professions, institutions and organizations:** brings together teaching and educational tools relative to: the definition of the profession with a historical, cultural and sociological approach; the legal framework of professional practice; the organization of the profession; the organization of work; and collaboration, management and administration.
- **Axis III. Individuals, cultures and societies:** brings together teaching and educational tools related to the bio-psycho-social development of individuals, the socio-individual dialectic and the different layers and fissures of a given society. This axis also includes the knowledge of stages of development and life cycles of human beings in diverse contexts.
- **Axis IV. Health and social problems, institutional responses:** brings together

teaching and educational tools related to problems and themes of health and social politics examined in multiple dimensions: psychological, sociological, judicial, philosophical, ideological. This axis examines institutional responses concerning certain aspects of public health, prevention and care coverage.

- **Axis V. Health Sciences:** brings together teaching and educational tools related to the multiple factors that determine health and the biomedical health disciplines.

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- **Axis VI. Technologies and their scientific foundations:** brings together teaching and educational tools related to the scientific foundations and diverse technologies useful to the physical therapist profession, including those that simply help intellectual work (computers, telecommunications).

- **Axis VII. Educational process and professional project:** brings together teaching and educational tools related to the actual educational process, with the idea of a reflexive relationship towards training and the changes it generates on various personal, professional and interpersonal plans. This axis allows the student to acquire tools that facilitate his or her learning and educational project management. It provides for a feedback mechanism on the training process in which the student is an active participant.

The skills set out in the proficiency standards have been split among the educational axes on the basis of the principal resources (themes, concepts, techniques...) they mobilize and the particular contexts of professional intervention.

The repertoire of competency identified for each axis, the resources they activate, and the contexts in which they are utilized, have been grouped into training modules.

(5) Final report established by the C2ES2 according to the initial educational apparatus of the University of Applied Sciences, western Switzerland, health and social studies - First part: educational apparatus, Sept. 2001, p.37-38

2.4 Apprenticeship – practical education

The apprenticeship or dual education model used is the integrative alternating studies model. The school and the site of the professional practice are educational sites that jointly contribute to competency development. The sites of professional practice allow the student to put into context the knowledge acquired in school and develop competency and knowledge to be reinforced in the classroom. The experiences realized during the practical education are prepared and analyzed in the school setting in order to optimize the apprenticeship in real-life situations and improve critical thinking.

The tool of practical education at the HES-SO ensures that the student has a framework of clinical work experience supervised by teaching practitioners who

organize the student interventions, and follow up with their evaluations. This system enables the establishments who receive the students to ensure a true educational mission in which the “apprenticeship” is not only an opportunity to apply skills and knowledge from school but also becomes a “period of practical education” that gives students the opportunity to follow up on their questions and apply solutions which they have found for the problems which present themselves.

The practical education period (apprenticeship) lasts 36 weeks and receives 50 ECTS credits. The alternation between classroom and practical education begins in the first year of the Bachelor’s studies program.

Hospital and clinical experience is preferred. This allows the student to find his or her place and role in the inter-professional environment, which can vary according to the mission of the establishment.

Each practical education period (apprenticeship) is negotiated according to a three-party pedagogic contract.

The practical education is coordinated by the degree program, ensuring educational possibilities for each student.

The student chooses his or her practical education plan from the opportunities proposed by the degree program. He or she can also propose an individual practical educational project. The degree program sets the methods of presentation and acceptance of such a project.

Attendance during the periods of practical education is obligatory. All absences must be made up for according to the rules of the degree program and the requirements listed in the class descriptions.

2.5 Bachelor’s Degree final project

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The Bachelor’s Degree final project is awarded 15 ECTS credits. It is organized during the last three semesters of the Bachelor’s studies program. This project includes classes, seminars and an individual, professional student project.

The Bachelor’s Degree final project is the last stage of the studies program. Its realization is based on resources and competencies developed during the training along with the incorporation of ongoing research in the profession. The necessary resources for the Bachelor’s Degree final project are presented in the axes VI and VII and are used in the other educational axes.

Two objectives must be met during the realization of the Bachelor’s Degree final project:

- Pedagogic objective: The completion of a Bachelor’s Degree final project enables the student to step back for a critical overview of the knowledge and professional practice of physical therapy, to establish for himself or herself a rigorous and systematic functionality, to organize each stage, to put the

scientific knowledge into context with a specific project, but also to create an understanding that will be transferable to the student's professional practice.

- Methodology objective: The completion of a Bachelor's Degree final project enables the application of a scientific approach to the field of physical therapy understood as a purpose-built process, systematic and rigorous in problem solving, the formation of hypothesis or objectives, the choice of methods, point of view and analysis. It includes the writing and presentation of results, as well as a critical analysis of the process and choices used in the research (memory and dialectical analysis). This process is an initiation to research that includes the selection of appropriate research document (application of documentary research techniques) and critical reading. The Bachelor's Degree final project enhances among other things, the ability to manage a long-term project that requires planning in several stages (that is, competency in project management).

3. Structure of the curriculum

3.1 Academic Calendar

The academic year is made up of two semesters, a fall semester going from the 38th week to the 7th week of the civil calendar, and a spring semester from the 8th week to the 37th week.

The academic year includes:

- Periods of courses/classroom teaching
- Periods of practical education (apprenticeship)
- Periods of course interruption allowing students to work on independent projects. Generally a course schedule is interrupted the 43rd week. The organization of the semester is dependent on the practical education schedule.
- 7 weeks of vacation: two weeks at Christmas, a week for Easter as defined by the HES-SO and 4 weeks in summer according to the site's organization.

The teaching modules (courses) are generally organized according to semesters in order to facilitate mobility (exchange opportunities) for students and professors.

The study plan below is given as a general guide as the organization of the training must respect the organizational constraints of the establishments where the practical education takes place.

Fall semester

Spring semester

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Classroom teaching time

Time of course interruption

Periods of practical education

Vacation

Class periods alternate with time for individual independent projects, guaranteeing students can go through the process of integration of knowledge and competence. The organization of these periods facilitates inter-site meeting of students.

A remedial session is available before the beginning of each academic year for students who did not pass their previous classes.

Periods are planned during the last three semesters of training to promote mobility within the degree program through common and coordinated class schedules among the three sites.

3.2 Organization of courses

The educational courses, with the exceptions of the practical education courses and the Bachelor's Degree final project, are divided among the seven educational axes enabling ECTS credits to be acquired in the following manner:

Axes
ECTS credits per axis
Practical education
Bachelor's Thesis
Total

The courses are described according to three criteria: (page 12)

- Their type (descriptor type (6)): The types of courses used to describe the courses in the Bachelor's Degree program are:

- ...Principal course (core type (6)): course enabling the acquisition of knowledge and the development of professional competency;
- ...Course linked to the principal course (related type (6)): course intended to reinforce knowledge and professional competency;
- ...Optional or complementary course (minor course (6)): course that enables the acquisition of complementary knowledge or the development of complementary abilities in order to be able to better follow the training, or options addressing specific interests of the student.

Two other types of courses have been defined by the degree program to ensure a range of choice for the students:

- ...Elective course: course listed in the degree program curriculum or by the school site that helps students broaden and reinforce knowledge and competency of the frame of reference
- ...Elective exchange course: course offered by a school site for degree program students in which the priority is the exchange of students between campuses (school sites). This type of class is offered several times in different forms during the training, keeping the proficiency levels consistent among school sites.

Course level (descriptor level (6)): The levels used to describe the courses in the Bachelor's Degree program are:

...Basic course (basic level course (6)): course enabling the acquisition of basic knowledge and the development of basic competencies of the profession

...Intermediate course (intermediate level course (6)): a course enabling the broadening of knowledge and professional competency development

...Advanced course (advanced level course (6)): a course enabling the intensification and reinforcement of knowledge and professional competency

- Obligatory characteristics of the courses: all the courses proposed in the Bachelor's Degree program enable the development of the skills as set by the proficiency standards. They enable the acquisition of the 180 ECTS credits necessary to be awarded the degree and failing these classes may lead to a definitive exclusion from the degree program as outlined by article 15, paragraph 1 of the general guidelines on the status of students.

(6) The degree program concept of graduated studies: best practice and recommendations of the CSHES, Version July 2004, p.15

4 International exchange

The Bachelor's Degree program offers students the possibility of student exchanges within the degree program as well as with other degree programs (elective courses) during the 3 years of training.

The degree program applies the ECTS (European Credit Transfer System) system which enables comparability among degree programs throughout Europe and thus enhances the desirability of the European university system through this transparency. All elements of the training are credited (classes, practical training, Bachelor's degree final project). The student's work is evaluated by the ECTS grading system. The diploma is granted through accumulation of credits. The student therefore has the possibility to pursue part of his or her studies in another university because credits previously earned from one university are recognized by others. A complete file is available with the educational records of each individual.

Upon the validation of 180 ECTS credits, the student is granted a HES-SO Bachelor of Science Degree in Physical Therapy. He or she also receives a Supplemental Diploma which presents information clearly defining the individual's qualifications, and therefore more easily enabling international recognition by universities and in the profession.

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The HES-SO degree program offers bilingual training (French-German) at the school site of Loèche-les-Bains. At least 25% of the teaching is in German and 25% in French (classes, class supports, examinations). This school site aims to have the notation of "bilingual studies" added to the Supplemental Diploma. The HES-SO is in the process of establishing this system.

Concerning the incentive systems and exchange programs for students and professors, the degree program has access to measures (financial and structural) made available by the HES-SO to encourage mobility. These possibilities include:

- HES-SO “International Relations” funds set up to finance professor and student exchange programs
- The international exchange programs Erasmus and Leonardo, managed by the Valais-based office MOVE (HEVs) at the request of the HES-SO.

In the degree program, each school site can apply to the local international exchange office to organize student mobility. At the beginning of their training, students are informed of the procedures necessary to participate in the international exchange program. Students can consult a list of international agreements in which the degree program and/or the site participate.

The exchange activities proposed to students consist of:

- Semester of studies: Students can attend classes for a semester in a partner university. The method of granting ECTS credits for the studies is prearranged before the departure of the student.
- Practical training (apprenticeship) in a foreign institution.
- Bachelor’s degree final project: It is possible to carry out this work in a partner institution or other institutions.

The program is organized in a manner which permits this mobility. Student exchanges linked to semester studies and apprenticeships are available to students from the beginning of the second year of the Bachelor’s degree studies, on the basis of projects negotiated with and accepted by the degree program.

5 Quality

The Bachelor’s Degree program is integrated into the quality system of the HES-SO.

In order to guarantee the consistency of the educational apparatus, the school sites of the degree program organize an evaluation of the teaching in which the students can participate.

Partnership with the professional community is one of the methods to regularly verify the curriculum’s adequacy for the needs of the profession.