

# **Framework study plan Bachelor's degree 2006**

**Degree course in  
Nutrition and Dietetics**

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

**Degree course in Nutrition and Dietetics  
Framework study plan, Bachelor's degree 2006**

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## **Preamble**

The Nutrition and Dietetics degree course is an integral part of the "Health" field of the HES-SO, which also includes the degree courses in Occupational Therapy, Physiotherapy, Psychomotricity, Radiologic Medical Imaging Technology, Midwifery and Nursing.

### **1. Introduction to the profession**

Specialising in nutrition and diet, dietitians advise, support and care for persons of all ages, in good health or ill, individually or in groups.

Working in public health and prevention, they organise courses, workshops and conferences, and work together with the media (newspapers, radio and television) to promote health through a balanced diet.

In a care environment, they determine the nutritional needs of patients on the basis of a dietary anamnesis, their nutritional condition and the reasons for their hospitalisation. This nutritional assessment forms the basis of a personal nutritional care programme for the patient: suitably adapted meals and menus or artificial feeding by feeding tube or intravenously.

In research institutions, they carry out research and investigations to show the role of diet in the maintenance or restoration of health.

In large-scale catering, together with the management and kitchen staff, they are responsible for the nutritional quality of the meals served. They advise consumer clients and organise nutritional education campaigns, such as introductory tasting workshops or themed weeks.

In the food industry they participate in the development of new products, create information materials, respond to consumers' questions and pass on their concerns to the engineers.

These activities are undertaken in various places: hospitals, private clinics, medico-social institutions, treatment and convalescent institutions, home care services, medical practices, prevention and/or sports clinics, food industries, large-scale catering enterprises, research institutes.

Work in private practice is growing rapidly. However, in order to qualify for reimbursement for nutritional advice by health insurance companies, practitioners must have 2 years' professional experience in a hospital environment.

Nutritional care and support for changes in dietary habits and behaviour are at the heart of the activities of a dietitian. As eating is closely linked with a person's social, cultural, psychological, physical and economic context, the course places special emphasis on the importance of the enjoyment of eating and respect for a person's values and ideas.

Changes in ways of living (e.g. women working becoming more commonplace, shorter lunch breaks and longer journeys to work) directly affect eating habits (e.g. meals away from home, fast food, ready-cooked meals) and expand the areas of intervention of dietitians who advise "modern eaters" in their purchases and their choices.

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Historically a hospital-based, female-dominated profession, it is now developing rapidly in response to current nutritional challenges such as overweightness and obesity, undernourishment, hospital malnutrition, general eating disorders as well as those caused by excessively restrictive or frequent diets.

New areas of activity such as nutritional education in schools, consumer advice, home-based care, applied research in nutrition, epidemiological surveys and sports nutrition, among others, enable professionals to respond to the growing need for nutritional advice.

## **2. Concept of the degree course**

In line with its mission, the Bachelor's degree course in Nutrition and Dietetics provides practice-oriented, generalist education and training, which provides for the development of the professional skills necessary to exercise the profession. The diploma grants holders access to professional practice.

The Bachelor-level skills build on the knowledge and skills acquired by students in their previous education and training or during their preparatory year (supplementary modules), which precede the start of the Bachelor's degree course.

The course is based on a framework study plan presented in the form of a modular study programme, a professional skills base, integrated alternation based on practical training and evaluation of performance. The Nutrition and Dietetics course is taught at a single campus, and so the framework study plan corresponds to the course programme.

### **2.1 Skills base**

Professionals holding a HES-SO Bachelor of Science in Nutrition and Dietetics are called on to deal with situations that are problematic, complex and hard to predict. Their professional actions will draw on specialised knowledge and on methods of action varied individually to suit each intervention, as they are intended for human beings. **These practitioners are reflexive**, their analytical and reflectional capacities put to the test in new ways wherever they are called on to act, in terms of their ability to think and to put theory into practice.

Working together with professionals, the concept of the degree course has been drawn up by identifying all the significant skills needed to exercise the profession of dietician. A distinction between professional practice contexts was made by reference to representative situations identified on the basis of the work of dieticians. The clarification of these situations has enabled clear identification of the resources needed to practise with real professional competence in the sense of "expert knowledge of how and when to act", that is by adapting professional interventions as a result of the individuality and unpredictability of people and contexts.

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The course thus distinguishes 7 professional practice contexts:

- Preventive nutrition education;
- Nutritional care;
- Therapeutic nutrition education;
- Food services;
- Food and nutritional information;
- Applied research in nutrition;
- Professional development.

In each of these contexts, dieticians may find themselves in situations involving **promotion, screening, decision-making, training, supervision, confrontation or innovation**. In these different situations, and depending on the particular context, a dietician will exercise an appropriate generic skill – the skills of **development, analysis, implementation, educating others, verification, negotiation, or initiation** – these have then been subdivided into specific skills in line with the aforementioned 7 practical contexts. The nature of these skills is shown in the following table: professional or specialist, methodological, social and personal skills.

The concept has been developed on what is termed a “descending” basis, that is the skills described in the skills base are the final skills expected of students at the end of the course. The modularisation of the course is based on a typology clarifying the stages of skills acquisition at 5 levels: **novice, beginner, advanced, confirmed and expert**. The module files specify the target final or partial skills and the general objectives of the course units making up the module.

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| Situations & Contexts  | Promotion Development skills  | Screening Analysis skills   | Decision-making Implementation skills                                    | Education Educational skills   | Supervision Verification skills  | Confrontation Negotiation skills  | Innovation Initiation skills   |
|---|---|---|--|--|--|---|--|
| <b>Preventive nutritional education</b>   | Integrating a nutritional policy in a public health approach.               | Analysing the factors affecting eating behaviour and consumption tendencies.  | Determining, devising and carrying out nutritional education projects.   | Devising and carrying out nutritional education with preventive aims.                            | Evaluating the development of the health status of the population.                     | Putting forward arguments for the beneficial effects of a nutritional policy. | Initiating partnerships with health, food processing, education and communication professionals and the relevant political bodies. |
| <b>Nutritional care</b>   | Developing preventive and therapeutic nutrition.                            | Detecting individuals or groups at risk.  | Taking therapy-related decisions and carrying out nutritional therapies. | Training care teams and clients' family / friends in applying and monitoring dietetic treatment. | Evaluating the impact of nutritional care given.                                       | Negotiating nutritional prescriptions by doctors.                             | Contributing to drawing up treatment schedules.  |
| <b>Therapeutic nutritional education</b>  | Developing food knowledge and eating practices.                             | Bringing to light objective and subjective eating issues.   | Devising and adapting nutritional education strategies.                  | Carrying out nutritional education with preventive aims.   | Objectivising the effects of the education.  | Implementing theoretical knowledge in the form of specific recommendations.   | Inducing changes in eating behaviour.  |
| <b>Food services</b>  | Ensuring that the nutritional needs of clients are catered for.             | Pinpointing the food-related risks in a production sector.  | Optimising food services within a community.                             | Devising and carrying out training campaigns for service providers.                              | Validating the measures implemented to guarantee food hygiene and nutritional balance. | Questioning practices involving risk.   | Drawing up strategies for the prevention of food poisoning.  |
| <b>Food and nutritional information</b>   | Promoting health and safety through food.                                   | Highlighting dysfunctions in the food chain.  | Ensuring the economic and ecological management of food resources.       | Providing information on the source and quality of food.   | Checking the information provided by producers.  | Guiding consumer choices and producer practices.                              | Cooperating with consumer protection bodies.   |
| <b>Applied research in nutrition</b>  | Substantiating the role of food in the promotion and restoration of health. | Discussing the results and conclusions of work carried out and published.   | Conducting or participating in applied research projects.                | Circulating the conclusions of work completed.   | Validating the research methodology and the results obtained.                          | Negotiating mandates.   | Initiating new research directions.  |
| <b>Professional development</b>   | Projecting a good impression and positive image of the profession.          | Incorporating into their daily practice professional ethics, their professional goals and their own system of values. | Creating a post of dietician.  | Contributing to the training of fellow professionals.  | Taking responsibility for the quality of professional practices.                       | Establishing and maintaining interdisciplinary practice and communication.    | Increasing and diversifying their professional skills and areas of activity.   |

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### **2.2 Course axes**

The course is aligned around 7 axes. Each axis represents a grouping of multidisciplinary themes, the intersection between disciplines, knowledge and professional practice, enabling students to develop their professional skills. The 7 axes of the degree course, and their main themes, are:

#### **Professional interventions**

*Human nutrition, preventive and proactive health through diet, eating behaviour, techniques and tools for the evaluation of nutritional status and food consumption, clinical nutrition, clinical reasoning, nutritional and therapeutic education, maintenance and motivation techniques, assistance relations, interventions in community catering.*

#### **Profession, institutions and organisations**

*Definition, history and development of the profession in Switzerland and abroad, the legal framework of professional practice, professional and general ethics, professional policies, quality procedures, interprofessional and interdisciplinary issues.*

#### **Individuals, cultures and societies**

*Life cycles and establishing eating habits, history and anthropology of diet, food representations and taboos.*

#### **Social and health problems, institutional responses**

*The obstacles to good diet such as age, migration, cultural diversity, disability, poverty, vulnerability or addictions; the healthcare system and social health insurance; public health and community health.*

#### **Health Sciences**

*Anatomy, morphology, physiology, medical and surgical physiopathology, therapeutic dietetics, pharmacology, epidemiology, alternatives to allopathic medicine.*

#### **Technologies and their scientific foundations**

*Food science, biochemistry, food technology, toxicology, ecology, culinary technology, basic concepts of applied research (statistics, research methodology).*

#### **Learning processes and professional project**

*Training project, practical analysis, professional project, Bachelor's thesis.*

### **2.3 Educational and teaching principles**

The degree course has adopted educational guiding principles that underpin the skills approach and modular nature of the education:

- a reflexive practical approach and skills are acquired by way of clinical, theoretical and practical teaching, alternating with training in professional environments and a significant proportion of personal work; within a career-oriented vision, these types of teaching are complementary and closely linked, and are therefore present in all the modules of the course;
- the theoretical teaching in particular is supported by case studies and the development of projects in close relation with the skills aimed for;
- the theoretical knowledge, based on scientific foundations and derived from applied research into human nutrition, relate closely to the profession of dietician and interdisciplinary exercise; in connection with the development of professional practices;
- the practical training is adapted to the number of students and, in line with the skills aimed for, it is organised so that students work in groups of limited numbers, or even individually or in pairs, using appropriate tools and

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instruments: workshops focussing on specific techniques (e.g. measuring body composition), scientific and food technology laboratories;

- the clinical training is provided on the basis of case studies in groups or organised individually in the form of practical training, or at the *Espace Conseil Nutrition*, an advice facility providing nutritional consultations managed by teaching staff of this degree course.

The course of study is designed and organised in line with the general principles of adult education, taking account of the requirements of a people-based career.

### **2.4 Alternation – practical training**

The practical training alternates with the theoretical teaching from the second semester onwards. Around 30% of the ECTS credits must be validated in a professional sphere (55 ECTS credits, i.e. 33 weeks).

The various placements for gaining professional practice experience are divided among the following professional fields: hospital environments, rehabilitation, treatment or convalescent centres, medico-social establishments, public and preventive health, the food industry, applied research centres, home-based help and care services, community health services, private practice.

|                         |           |         |
|-------------------------|-----------|---------|
| <u>Second semester:</u> | 6 weeks,  | 10 ECTS |
| <u>Third semester:</u>  | 12 weeks, | 20 ECTS |
| <u>Fifth semester:</u>  | 6 weeks,  | 10 ECTS |
| <u>Sixth semester:</u>  | 9 weeks,  | 15 ECTS |

This last period of practical training may be undertaken within the scope of applied research in nutrition or a project undertaken in connection with the Bachelor's thesis.

Each period of practical training is the subject of a tripartite educational contract which clarifies the following points:

- the title and duration of the practical training period and its position within the programme;
- the number of ECTS credits, the nature and types of evaluation;
- a selection of the professional skills most particularly developed during this period;
- the aims of the practical training period and an example of the associated tasks;
- the prerequisites.

At the end of each period of training in the field, students will participate in an integration seminar involving comparison of the practical and theoretical knowledge encountered. The practical training period is credited by the course staff once all the conditions specified by the tripartite educational contract have been fulfilled and certified. Students must obtain a minimum grade of E for each of these periods.

The degree course maintains relations with the locations offering practical placements by means of three-way meetings during the practical training periods, a practical training committee that meets at least once a year and a Practical Training Information Bureau (BIFOP) run by two teaching staff advisers on campus.

The BIFOP provides for the logistical management of practical training placements. Students are responsible for finding their own practical training placements and organising their schedule in accordance with the directives in force. They will maintain regular contact with the course teaching staff advisers and comply with the dates stipulated in the plan for their practical training periods.

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## **2.5 Bachelor's thesis**

The Bachelor's thesis is an introduction to applied research, collecting data, working together with researchers, communicating the results of a research project, producing a written document and defending it at an oral examination before a panel of experts.

The Bachelor's thesis is an integral part of the degree course, of which it is the final stage. It represents 15 ECTS credits. It has the general characteristics of UAS-level education, that is:

- a) a high level of knowledge and skills corresponding to the expert level associated with professional activity;
- b) correlation with the demands of the profession, with a reflexive perspective;
- c) the acquisition of a spirit of research (attitude, approach).

It will give rise to an appropriate piece of work of a standard commensurate with a UAS-level education. Chosen and undertaken in consultation with the professional sector of nutrition, it will make a contribution to the knowledge of the themes, problems and practices of the profession.

Students will demonstrate a certain number of skills by:

- a) outlining a professionally-relevant set of problems;
- b) making an appropriate choice and appropriate use of theoretical references;
- c) using an appropriate methodology;
- d) their capacity for analysis and argumentation;
- e) giving a clear perspective based on the results obtained and the conclusions derived.

Undertaken individually or in pairs, the work will respect the rules of professional and general ethics applying to research.

While working on their thesis, students are guided by a specialist supervisor appointed by the degree course campus.

The evaluation panel is made up of at least two experts: the supervisor of the Bachelor's thesis and a consultant professional expert with a background in the particular professional context in which the project is based.

## **3. Structure of the studies**

### **3.1 Academic calendar**

- The studies leading to a Bachelor's degree in Dietetics last for at least 3 years full-time.
- The academic year and autumn semester start at the beginning of Week 38.

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- The year comprises an autumn semester (16 weeks) and a spring semester (16 weeks).
- The autumn semester finishes at the end of Week 3.
- The spring semester begins in Week 8. There is a break of four weeks between the two semesters.
- The exams are generally organised to be held during the relevant semester.
- One part of the practical training is undertaken outside the two semesters of study.

### **3.2 Modular organisation**

The course leading to a Bachelor of Science HES-SO in Nutrition and Dietetics is of a generalist nature. It is worth 180 ECTS credits. Divided over six semesters, the course programme is structured in 24 modules. Each semester is worth 30 ECTS. The modules are worth between 3 and 20 credits, broken down as follows:

- 3 modules of 3 ECTS,
- 5 modules of 4 ECTS, one of which is for the “mobility month”,
- 4 modules of 5 ECTS,
- 2 modules of 6 ECTS,
- 2 modules of 7 ECTS,
- 1 module of 8 ECTS,
- 3 modules of 10 ECTS,
- 1 module of 11 ECTS,
- 2 modules of 15 ECTS, including the module dedicated to the Bachelor's thesis,
- 1 module of 20 ECTS.

Each module is given a precise description, compatible with the ECTS system. These descriptions are given to students at the beginning of the course, then before the beginning of the following semester. Students register for the modules and the associated evaluation procedures.

The modules are offered in line with a block plan or allocated to a single semester. This second option is the more usual one within the degree course, which places the emphasis on alternation with guided personal work in place of total but restricted immersion over the same period in a limited subject area.

In the 5th semester the course offers optional modules, each worth 2 ECTS credits (total to be acquired = 6 ECTS). Students can choose from the following modules: “Diet in different times and around the world”, “At the limits of diet”, “Sport and nutrition”, “Education in taste”, “Clinical nutrition (technical methods specific to nutritional care)” and “Skills assessment”.

As part of their compulsory practical training, students will have the option, from the third semester onwards, of acquiring an **optional additional ECTS credit** if they produce a piece of personal written work and participate in a one-day seminar in connection with the following themes: “Treating obesity and eating behaviour problems”, “Removing the obstacles to good diet”, “Nutritional and therapeutic education in chronic illness and long-term support”, “Health promotion by means of diet”, “Diet from birth to adolescence: child sickness option”, “Diet from birth to adolescence: prevention option”.

## **4. Mobility / internationalisation**

The degree course encourages mobility by the following means:

- The framework study plan includes a mobility module (4 ECTS). The student must find an appropriate module offered by another degree course of the HES-SO or another university. The head of the local degree course will validate the choice, subject to ensuring that the knowledge and skills acquired are relevant to the professional profile of a dietician.
- The programme offers optional modules enabling students to study certain areas of their choice in greater depth, such as paediatrics, clinical nutrition, eating behaviour problems, nutritional education.
- Students choose their placements for practical training in Switzerland, and abroad from the third semester's training onwards.
- The Bachelor's thesis may be undertaken with an institutional partner or other institutions.
- Since 2008 there have been possibilities of exchanges with the dietetics degree course at the Bern University of Applied Sciences, which launched a Bachelor's degree programme in autumn 2007 in Bern and with which the Geneva campus works closely.
- Access to the Erasmus international exchange programme, managed by the Valais bureau MOVE (Sierre campus) on behalf of the HES-SO.
- Access to the Leonardo international exchange programme.

The international agreements made with educational establishments abroad (in Brussels and Barcelona, for example) enable students to undertake a semester's study at the partner establishment. The conditions for awarding the ECTS credits in respect of training undertaken abroad are defined with each student prior to departure.

## **5. Quality**

Like its associated courses, this degree course is integrated into the HES-SO quality system. The Haute Ecole de Santé has a quality manager.

The degree course administrators ask students and teaching staff for an evaluation of the training received, which contributes to the annual revision of the modular programme.

The practical training and completion of the bachelor's theses facilitate close and frequent collaborations with professionals in the field, and ensure a balance between the theoretical teaching provided by the degree course and the development of good professional practices.

The "Students' Bureau" and the Practical Training Information Bureau (BIFOP) are responsible for the quality of student support during their theoretical education and practical training.