

SPIRIT

BODY

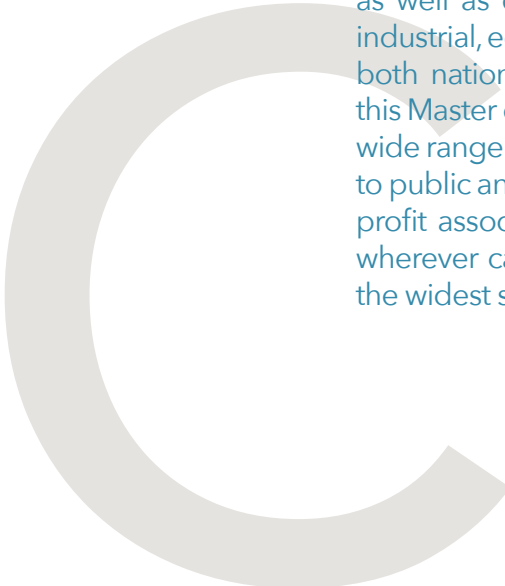


MIND

# HEALTH& WEALTH: THE NEW EDUCATIONAL PROJECT

Training is a crucial transversal issue of the [Health&Wealth](#) project developed by the University of Brescia. This new and innovative educational project offers cultural and multi-disciplinary courses of different levels aimed at preparing a new generation of educated and skilled citizens who will lead development in the academic world, business, institutions and society.

The Master Degree in “Science and Technology for population Health and Wealth” and the PhD course in “Technology for Health” will be available from the start of the academic year 2014/2015: these new proposals for specific educational courses created by the University of Brescia within the strategic thematic *Health&Wealth* project, aim to attract students from all over Italy and abroad.



Today, health means not only being disease-free but also being in a condition of total physical, mental and social wellbeing, and this new concept lies behind the new *“Science and Technology for population Health and Wealth”* course and the *“Technology for Health”* PhD. Both courses consider people in their holistic complexity. The mission is therefore that of providing the knowledge necessary to form a new kind of professional whose activities focus on the health and wellbeing of the individual and the environment. All this is possible thanks to a clever integration of knowledge from medical, biological, scientific, technological, economic and legal fields, as well as cooperation with the scientific, medical, industrial, economic, and social institutions operating both nationally and internationally. Graduates with this Master degree or PhD will be able to operate in a wide range of roles and contexts, from public bodies to public and private structures, companies and non-profit associations: wherever there are people and wherever caring for their wellbeing – understood in the widest sense – can make a difference.

**THE CULTURAL  
SPHERE**

# EDUCATIONAL TARGETS

The long-term goal of the Master Degree is to generate a new professional with broad-spectrum interdisciplinary knowledge able to operate in different fields in order to achieve, maintain and revitalise the overall wellbeing of a person.

The Course offers an exclusive educational program and is held in English, a highly distinctive element. These new professionals will differ from graduates of already existing courses in that they will have integrated and transversal skills and will be highly competitive and innovative at both national and international levels.

The University of Brescia, through its strategic project Health&Wealth, aims at becoming a point of reference in terms of health and wellbeing for institutions, businesses, associations, the financial community and citizens. The Master Degree is designed to train an intellectual élite capable of generating a development model based on the health and wellbeing of the individual and on the environment, in a country of great cultural and scientific traditions. Such a model should, in the future, provide a concrete contribution to the progress of Brescia, Italy and the world in general.

# SCIENCE & TECHNOLOGY FOR POPULATION HEALTH AND WEALTH

- Metabolic biochemistry
- Pharmacology of nutrition and nutraceutic
  - Nutritional diseases
- Energy balance, nutrients and health
  - Nutrigenetics and nutrigenomics

## NUTRITION

- Animal food products:  
nutritional and safety aspects
- Pre- and post-harvest food safety
  - Sustainability in the food chain
  - Nutritional biochemistry

## FOOD SCIENCE

- Technology applied to  
biochemical measurements
  - Bionanotechnology
  - Electronics and sensorics  
in healthcare and wellness
    - Computer systems  
for healthcare and wellness
  - Biomaterials and medical devices
- Technology applied to diagnostic pathology
  - Microbiology and clinical microbiology

## APPLIED BIOTECHNOLOGIES

- Health and wealth law
- Administrative law for health and wealth
  - Biostatistics and data analysis
  - Empirical health economics

## HEALTH ECONOMICS AND LAW

## EXERCISE AND NUTRITION THERAPY

- Exercise and management of age related and chronic diseases
- Nutritional modulation of aging and age-associated diseases

## EXERCISE SCIENCE

- Exercise science

## LOCOMOTION AND PAIN

- Locomotion and neuromuscular control
- Drug therapy of inflammation and pain
- Immobilization
- Gait and pain in rehabilitation medicine
- Rheumatic diseases
- Functional mechanical analysis of rehabilitation systems

## CHRONIC DISEASES

- Cardiovascular and energetic regulation
- Cardiovascular pharmacology
- Prevention of vascular and metabolic diseases and principles of medical spa
- Preventive and therapeutic interventions in chronic diseases and in the elderly
- Cardiovascular complications of chronic diseases
- Endocrine and metabolic diseases
- Pathophysiology of nutrition-related chronic disease and aging

# SCIENCE & TECHNOLOGY FOR POPULATION HEALTH AND WEALTH

Theory and methodology  
of training

THEORY AND  
METHODOLOGY  
OF TRAINING

- Group management
- Psychological support in an ageing society
- Sociology of an ageing society

SOCIAL AND  
PSYCHOLOGICAL  
SCIENCES

- Environmental diseases
- Environmental health and medicine
  - Environmental sociology
    - Water pollution and waste management
- Smart sensors for domotics and health care

ENVIRONMENTAL  
SCIENCE  
AND TECHNIQUES

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2° YEAR, 2° SEMESTER

EXPERIMENTAL  
PRACTICE  
AND FINAL TEST







# THE PhD “TECHNOLOGY FOR HEALTH”: EDUCATIONAL TARGETS

The PhD in “Technology for Health” is a three-year interdisciplinary program that combines the fields of engineering and of biological and medical sciences aimed at creating professionals who are able to develop products and procedures in the field of health and medicine. It is a research-oriented doctorate program which will qualify the candidates to enter the world of employment or to continue to obtain specialized qualifications in bioengineering, medicine and biotechnology. The training paths of the doctorate are also aimed at developing the skills required by the job market when professional practice involves interdisciplinary aspects typical of medical sciences and engineering sciences. Professionals trained in this programme will be attractive for the biomedical industry.







**UNIVERSITY  
OF BRESCIA**







The excellence of the University of Brescia is based on innovation, progress and the integration of knowledge, ranging from the socio-cultural sphere to that of health, medicine, law, economics and engineering. The University is at the forefront of change, it is open to society with an emphasis on the sharing of knowledge, and it has a unique strategy which makes it the first University of its kind in Italy. In this context, the new *Health&Wealth* project is both modern and ambitious, it enables the young and talented to compare their knowledge and share their enthusiasm, generating new ideas. The campus has a lively cultural exchange and excellent research, sharing of knowledge and expertise which make it an example of excellence nationally. The University of Brescia is increasingly active in the international higher education scene.



Known as the Lioness of Italy, Brescia is a smart, hard-working city. An important iron and steel center of the Po valley, it also boasts a great artistic heritage (including the remains of ancient Roman Brixia and many eighteenth-century churches), a wide range of nature trails (Franciacorta, Lake Garda, Camonica valley, Trompia valley) and food and wine tours. Ideally situated between Milan and Verona, close to the largest Italian lake, Lake Garda, and near the most important highways, Brescia is very close to the major cities of northern Italy, such as Milan, Bergamo, Verona and Venice which are just a short train or car journey away.





The historic center of Brescia bears witness to its Roman and Longobard origins for which it has been declared a World Heritage Site by UNESCO. It is home to museums, monuments and buildings of great artistic and architectural interest (for example the Castle). The city has an impressive mixture of styles and historic periods: the archaeological site of the Capitoline Temple and the Domus dell'Ortaglia stand next to imposing medieval structures, such as the Monastery of Santa Giulia or the Church of Santa Maria in Solario. Home to three of the greatest masters of the Italian Renaissance, Romanino, Moretto and Savoldo, Brescia boasts a valuable artistic heritage: reference to the "school of Brescia" indicates the concrete style used to focus on man and nature, with a realistic eye and particular attention to the effects of light.

The impressive main squares (Piazza della Loggia, Piazza della Vittoria and Piazza Duomo) contain historical and religious buildings of different ages, such as the Broletto, the Old Cathedral, the New Cathedral, the Palazzo della Loggia and the Clock Tower.









stampato su carta  
ecologica certificata



Piazza del Mercato, 15 - 25121 Brescia (Italy) - Tel. +39 030 2988.1 - [www.unibs.it](http://www.unibs.it)  
For further information: [internationalstudents@unibs.it](mailto:internationalstudents@unibs.it) - <http://healthandwealth.unibs.it>