

## Master Ingénierie de la santé

# Parcours international Healthy Living 2e année

## Présentation

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### **Healthy Living - cursus Health 4 Life Engineering**

With the rapid advance of biomedical engineering, life sciences and physical sciences have converged to create a new discipline: biomedicine. This convergence is helping scientists to make important breakthroughs, such as nanoscale systems for disease detection and drug delivery, predictive computer models of disease progression and drug response, and increasingly affordable forms of biometric analysis for personalized medicine.

Over the past 150 years, average life expectancy has increased by approximately 4 to 5 years per generation. the gap between the active and inactive has widened, and pressure on health and social care costs for society has increased. as chronic disease becomes more prevalent and populations continue to age, eu healthcare systems are striving to shift the burden of care from hospitals to the community and the individual. There is consequently a growing need for biomedical innovations to be more user-centred, empowering patients to manage their healthy living and active ageing. Postgraduate recruits to the fast-growing sector of biomedical engineering will need to bring not only their expertise in a particular field, but also a thorough grounding in a range of technologies and the ability to apply their knowledge and skills to the design of new products and services. Health4life addresses this need with a novel programme combining education and research.

## Admission

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The master of Health Engineering is open in initial training and continuing education. The 1st year of master is accessible on file (and / or interview) to the candidates justifying a national diploma conferring the degree of license in a field compatible with that of the master or via a validation of studies or of acquired according to the conditions determined by the university or the training. The 2nd year is accessible on file (and / or interview) to the candidates having validated the 1st year of master of a compatible course or else by a validation of studies or acquired according to the conditions determined by the university or Training.

Public continuing education:

You are in charge of continuing education:

- if you resume your studies after 2 years of interruption of studies,
- or if you followed training under the continuous training regime one of the previous 2 years
- or if you are an employee, job seeker, self-employed.

If you do not have the diploma required to integrate the training, you can undertake a [validation of personal and professional achievements \(VAPP\)](#).

A number of scholarships / bursaries are available. The selection to the program does not include automatically a scholarship attribution.

"You wish to apply for and register for a training course at the University of Grenoble Alpes The application procedures depend on your profile and your country of residence. You are a student.e of French nationality, or you reside in the EU, where you reside in a country not under the procedure Studies in France (see below), you must apply via the application ecandidat on the dates below:

For the 1st year of the Master of Health Engineering: entry of applications online between 18/03/2019 and 9/05/2019. Interviews for those pre-selected early June 2019 deadline for answers: 17/06/2019 - For the 2nd year of the Master of Health Engineering - whatever your mention and your course of M1 (the M1 IS are also concerned ): entry of applications online between 01/04/2019 and 30/05/2019. attention: The M2 HEALTH ENGINEERING COURSE METHODS FOR LEARNING IN HEALTH will not open at the start of the 2019-2020 school year. Applications for the M2 international Healthy Living will be open from March 4, 2019 to April 30, 2019

(contact: ri-pharmacie@univ-grenoble-alpes.fr) Applications for the H4L Master will open from 4th March 2019 to 30th April 2019 (contact: ri-pharmacie@univ-grenoble-alpes.fr) You live in one of the countries below. You thus come under the procedure Studies in France: entry of the applications on line on the Campus France site. The dates of candidatures are specified on this site. The procedure "Studies in France" concerns only the students residing in one of the 41 following countries: Algeria, Argentina, Benin, Brazil, Burkina Faso, Burundi, Cameroon, Chile, China, Colombia, Comoros, Congo Brazzaville, South Korea, Ivory Coast, Djibouti, Egypt, United States, Gabon, Guinea, India, Indonesia, Iran, Japan, Kuwait, Lebanon, Madagascar, Mali, Morocco, Mauritius, Mauritania, Mexico, Peru, Democratic Republic of Congo, Russia, Senegal, Singapore, Taiwan, Togo, Tunisia, Turkey and Vietnam. For more information, we invite you to visit the website of the Master of Health Engineering Contact: [scolaritemasteris@univ-grenoble-alpes.fr](mailto:scolaritemasteris@univ-grenoble-alpes.fr) "

## Poursuite d'études

Health4life leads on naturally to PhD positions and/or R&D careers in world-leading industries, high-potential start-ups, teaching hospitals and universities, where students are able to utilise their skills in collaborative cutting-edge research and innovation projects, translating technologies into viable applications for the benefit of all.

## Infos pratiques :

- > **Composante** : UFR Médecine, UFR Pharmacie
- > **Durée** : 1 an
- > **Type de formation** : Formation initiale / continue
- > **Lieu** : Grenoble - La Tronche domaine de la Merci
- > **Contacts** :

### Responsable(s) pédagogique(s)

Luc Choisnard  
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### Secrétariat de scolarité

Scolarité Mention de Master Ingénierie de la Santé  
[scolaritemasteris@univ-grenoble-alpes.fr](mailto:scolaritemasteris@univ-grenoble-alpes.fr)

## Programme

### Master 2e année

#### Semestre 9

7 élément(s) au choix parmi 19

<b>UE Computer-based medicine for chronic diseases (ESI summer school archamps)</b>	6 ECTS	90h
<b>UE Molecular tools for the diagnosis and treatment of genetic diseases</b>	3 ECTS	29h
<b>UE Proteomics for health research</b>	3 ECTS	25h
<b>UE Technological innovation in health</b>		
<b>UE Computational biology</b>		
<b>UE French as a foreign language</b>		

#### UE other UGA's mentions

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#### UE Research project - long internship

#### UE Research project - short internship 1

<b>UE Computer-aided drug design : therapeutic applications</b>	3 ECTS	26h
<b>UE Innovative cell and gene therapies</b>	6 ECTS	75h
<b>UE Animal experimentation</b>	3 ECTS	30h
<b>UE Environmental epidemiology</b>		
<b>UE Regulations in health and environmental safety</b>		

**UE Modeling in environmental health**

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**UE Methods in environment, health  
and GIS**

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**UE Micro and nanotechnologies for  
health** 3 ECTS 30h

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**UE Pollutants and health** 3 ECTS 26h

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## Semestre 10

1 élément(s) au choix parmi 6

**UE Big data for healthy living (ESI  
summer school archamps)** 6 ECTS 90h

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**UE Safer ecodesign for nanomaterials  
(ESI summer school archamps)**

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**UE Augmented reality in surgery**

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**UE Technological innovation in health**

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**UE Research project - long internship**

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**UE Research project - short internship**  
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