

Located on two green campuses in Brussels and Walloon Brabant, the Haute Ecole Lucia de Brouckère (HELdB) offers quality teaching where the theoretical and practical aspects are complementary. A school attentive to the needs of its students, it offers them an opening to the world and the possibility of going further. Its research activities, technology transfer and industrial partnerships are not to be outdone.

## Three main fields of training are offered at HELdB



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Educational sciences, economic and management sciences, sciences and techniques. Sciences and techniques include garden and landscape architecture, urban environmental management, dietetics, medical electronics, and the Institut Meurice engineering school, which specialises in the growth sectors of materials (polymers chemistry), environment, biotechnology, food industries and brewing.

### Focus on medical electronics

The Bachelor's degree in medical electronics trains specialized technicians. With opportunities in the maintenance, servicing, repair and sale of medical equipment such as respirators, imaging equipment, scalpels, etc. It is worth noting that medical electronics technicians have never been as much in demand as they are today since medicine is increasingly based on medical examinations and analyses using advanced technologies. This bachelor's degree enables future technicians to meet the needs of modern medicine by ensuring the link between technology and medicine.

95% of graduates find a job within two months. Either in hospital biomedical departments or in companies as technicians, technical sales representatives and even interlocutors for public authorities in the context of public procurement. Some HELdB graduates pursue a master's degree in 2 or 3 additional years following a bridging programme.

### A unique course in the Wallonia-Brussels Federation

The Haute Ecole Lucia de Brouckère is the only one to offer this bachelor's degree in the French-speaking part of the country. On this course, students learn to assimilate the principles of

operation and maintenance of the major families of medical equipment, master technical and physiological knowledge with a view to implementing, controlling and maintaining medical electronics equipment in hospitals and in the medical electronics industry, manage stress factors, integrate into multidisciplinary teams specific to the medical environment and develop a sense of responsibility specific to the health sector.

The curriculum integrates courses with a medical orientation (physiology, deontology, etc.), courses related to oral and written communication (French, technical English), technical courses (electronics, computer science, networks, etc.) based on courses with a scientific orientation (biophysics, mathematics), courses rooted in economic reality (marketing, management) and finally activities organised to ensure that all these notions are exploited and selected correctly when the student is in a real-life situation (internships on up-to-date medical equipment, end-of-study work).

## **Institut Meurice engineering school**

The Institut Meurice engineering school offers attractive courses such as the Bachelor of Science in Industrial Engineering (first cycle of 3 years). The second cycle of 2 years delivers the degree of “Master in Industrial Engineering Sciences” and leads to the title of Industrial Engineer in the Biochemistry and Chemistry orientations.

Many functions are accessible to industrial engineers: production, research, technological development, quality management but also sales and management. Other postgraduate courses – specific to the Haute Ecole – are appreciated by students: the Master’s degree in pharmaceutical biotechnology, the Master’s degree in materials technology or the Master’s degree in food technology.

## **Research, an integral part of training**

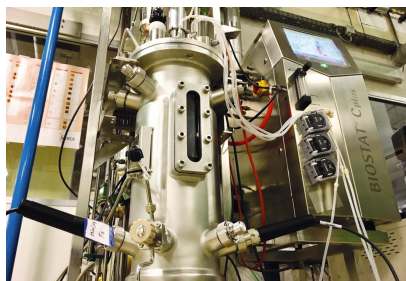
The Institut Meurice engineering school pursues a dynamic activity of applied research in its laboratories, in connection with a recognised expertise in biotechnology, the environment, brewing or catalytic chemistry. It allows for increased knowledge of the industrial environment and its needs, thanks to the close links maintained with private sector players, and for courses and training to evolve with the knowledge and skills acquired.

This activity is resolutely plural and collaborative, and takes the form of its own, subsidised and sponsored research projects. Research topics include agri-food, biotechnology, environment and catalysis.

Thanks to its collaboration with LABIRIS and Meurice R&D researchers, the research centre associated with the Meurice Institute has participated in numerous [FIRST](#), [PIT](#), [BRIDGE](#),

[IMPULSE, Wagralim, Greenwin and BioWin projects](#) (3 of the 7 Walloon competitiveness clusters), often associated with Walloon or Brussels companies, or at least with their sponsorship. As for sponsored research, it is carried out directly on behalf of companies, dealing with the issues these industries are working on. Research that is both applied and directly applicable. When such research is conducted, the results belong to the industrialist.

For the Institut Meurice, the gain is on several levels: new knowledge and knowledge of current problems on the ground, contribution to specialisation courses by LABIRIS people (several have visiting professor status and give lectures to students in the Master years), enrichment of training by concrete and applied cases, financing by the industries of new equipment allowing the acquisition of new skills, and job opportunities for young graduates.



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## State-of-the-art equipment

Moreover, the Institut Meurice has state-of-the-art equipment that few chemical engineering training institutes can boast: controlled biofermenters with a volume of 1 to 200 litres (pilot scale), protein purification lines, fluidised bed dryer, freeze-dryers, complete and autonomous microbrewery, climatic chambers and texturometer for foodstuffs, test cabins for sensory analysis in compliance with AFNOR standards, gas chromatographs with mass detection, NIR, ICP, capillary NMR, absorption and atomic emission spectrometers.

## Food issues and technology transfer

Another research player, the Information and Research Centre on Food Intolerances and Hygiene (CIRIHA) is a research centre in the fields of adverse reactions to food and cardiovascular diseases. It is developing as an authority in the fields of adverse reactions to food, food hygiene and practical nutrition. Its aim is to provide support to the medical, paramedical and economic world and the general public in the form of consultancy, information and training.

In terms of technology transfer, the BioTechnology Unit (UBT) was created in 1983 to develop biotechnology skills within the Institut Meurice. Its know-how is expressed in the production of micro-organisms in dry or liquid form, the scaling-up and validation of fermentation and protein

purification processes of industrial interest, and in the development of bioprocesses for purification and environmental technologies.

Ultimately, the HELdB has an educational, social and cultural project. A project where training and research feed one another, where quality is a state of mind. Quality recognised by the media: on 9 September 2021, the Institut Meurice was honoured by the cameras of the RTBF during the programme "Matière grise". Its brewing service thus highlighted its know-how and its teaching on yeast in a report on Belgium's favourite drink. A well-deserved recognition.



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