

HEC LIÈGE - MANAGEMENT SCHOOL
+ FACULTY OF APPLIED SCIENCES



2 MASTERS IN 3 YEARS



DIGITAL BUSINESS

TRANSDISCIPLINARY PROGRAM



A 3 YEAR INTENSIVE EXCITING PROGRAM

It is a unique offering providing full fledged training in both Business and Computer science engineering in a 3 year intensive exciting program. The market will acknowledge you as an expert in each of these fields, and even more importantly, will prize this rare dual competency in digital business.

It is to be noted that transdisciplinary activities, included in the curriculum from the first year of the Master's program, ensure students' immersion in their bi-disciplinary environment.

Transdisciplinarity

Far beyond juxtaposing skills, the transdisciplinary Master's degree means to foster new profiles bathed in a dual culture from the first year of the Master's degree.

Students are trained in cutting-edge subjects in a transversal way, which enables them to apprehend problems from an innovative angle.

Application

This program is designed for students following a course of study in Business Engineering with a specialization in Digital Business, Civil Computer Engineering or Computer Science with a management focus.

After a selection process, graduates of these programs can continue their studies in the other master's program in order to obtain a second degree in a single year.

Applications are submitted during the last year of the master's degree in the original program via an online form. The student's program is established according to the courses previously taken and passed. The program grid in this brochure corresponds to the situation of students who have followed the standard course as shown in the diagram.



+ MASTER IN BUSINESS ENGINEERING + MASTER IN COMPUTER SCIENCE OR IN COMPUTER SCIENCE AND ENGINEERING

Effectively developing digital literacy and skills to adapt to the ever evolving world of technology.

Harnessing the digital world

Information technology has long been an essential support for business management. Nowadays, IT has become no less than central to the task as many activities are highly dependent on efficient information systems. These must be able to manage relations with customers or suppliers, support internal processes, deal with production planning, inventory, distribution and more.

Beyond offering support systems, digital technologies afford new economic opportunities and managerial challenges: designing new products, offering new services, building new revenue models, addressing new ethical questions, etc. Not forgetting that many of the fastest growing new businesses are purely digital, i.e. offering exclusively dematerialized products and/or online services, such as matchmaking platforms, mobile apps, cloud facilities, storage and processing power, etc.



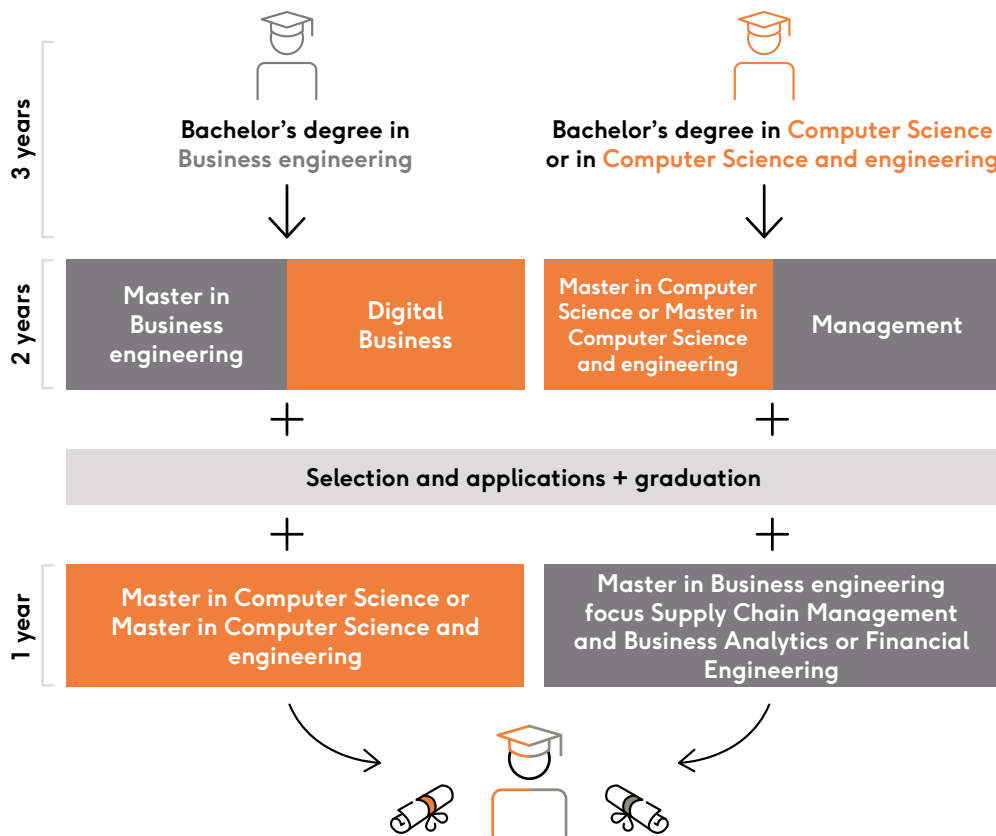
Strengths of this unique Program

- Offering full-fledged education in business and computer science
- Leading to two Master's degrees at the end of 3 years of exciting and intensive learning experience
- Optimizing the chances of stimulating employment after graduation
- Praised as a breakthrough by all our corporate partners

Student's career path

The Digital Business program is aimed at students holding a Bachelor's degree in Business Engineering or in IT Civil Engineering or Computer Science. They pursue their study program with the 120-credit Master's degree in their initial discipline, supplemented by 30 credits for the other discipline.

Thanks to the valorization of the credits already acquired, these students obtain a second 120-credit Master's degree in the other discipline after just one year of study.



● HEC Liège - Management School

● Faculty of Applied Science



GOOD TO KNOW

To get access to the master in Computer Science and Engineering, the business engineers must add to their cursus :

Analyse mathématique 1	4
Mécanique rationnelle	4
Introduction aux signaux et systèmes	5

MASTER IN **BUSINESS ENGINEERING**
Focus Digital Business

MASTER 1 | 60 CRÉDITS

Business Analytics	5
Information Technology Management	5
Preparation for Master Thesis and Internship	1
One level 4 language course or basic level 1	3
Erasmus or 28 credits HEC	
Change Management	5
Corporate Finance	5
Entrepreneurship & Innovation	3
International Business Engineering Seminar	5
International Marketing Seminar	5
Models & Methods in Applied Statistics	5
Choose one of the following courses :	
Elementary Language course 1	3
Environmental Management	3
International Strategy	3
Projets technologiques innovants	4
Data Management	5
Focus	
Advanced Topics in Digital Business	5
Structures des données et algorithmes	5
Object-oriented programming	5

MASTER 2 | 60 CRÉDITS

Portfolio of Skills	5
Master Thesis Methodology	2
Internship and Master Thesis	28
Business Ethics & Corporate Social Responsibility	4
One level 5 language course or basic level 2	3
Choose one of the following courses :	
Elementary Language course 2	3
Organizational Business Model Design	3
Introduction à l'entrepreneuriat familial	3
Seminar on Sustainability & Smart Territories	3
eBusiness and eCommerce	5
Project Management	3
Focus	
Database for Management	5
Introduction to Artificial Intelligence	5
Choose one of the following courses : Introduction to computer networking* or Digital Business Capstone Project	5

MASTER | 70 CRÉDITS

Introduction to Computer Networking	5
Operating Systems	5
Introduction to Machine Learning	5
Introduction to the Theory of Computation	5
Software Project Engineering and Management	10
End of Studies Project	10
The courses of the focus «Computer Systems security» or «Intelligent Systems»	30

* to be chosen if you wish to continue with the 3rd year of the program

MASTER IN **COMPUTER SCIENCE OR**
MASTER IN **COMPUTER SCIENCE AND ENGINEERING**
Focus Management

MASTER 1 | 60 CRÉDITS

Compilers	5
Introduction to machine Learning	5
Introduction to the Theory of Computation	5
Information and Coding Theory	5
Software Project Engineering and Management	10
Principles of Management	5
Operating Systems (only for engineering)	5
Choose credits of elective courses inside or outside the focus to complete the program of the block	
Focus	
Analyse des états financiers et Financement de l'entreprise	5
Comptabilité générale ou Technologies industrielles	5
Supply Chain Management	5

MASTER 2 | 60 CRÉDITS

Master Thesis	24
Choose credits of elective courses inside or outside the focus to complete the program of the block	
Focus	
Business Simulation	2
Gestion stratégique des ressources humaines	5
Gestion juridique générale de l'entreprise	5
Dutch, German or Spanish	3

MASTER | 68 CRÉDITS

Business Analytics	5
Change Management	5
Corporate Finance	5
Foreign language	3
Information Technology Management	5
Portfolio of Skills (SAP, SAS, ...)	5
International Marketing Seminar	5
Digital Business Capstone Project	5
The courses of the focus «Supply Chain Management & Business Analytics» or «Financial Engineering»	30

CONTACTS

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Your HEC Liège news   



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